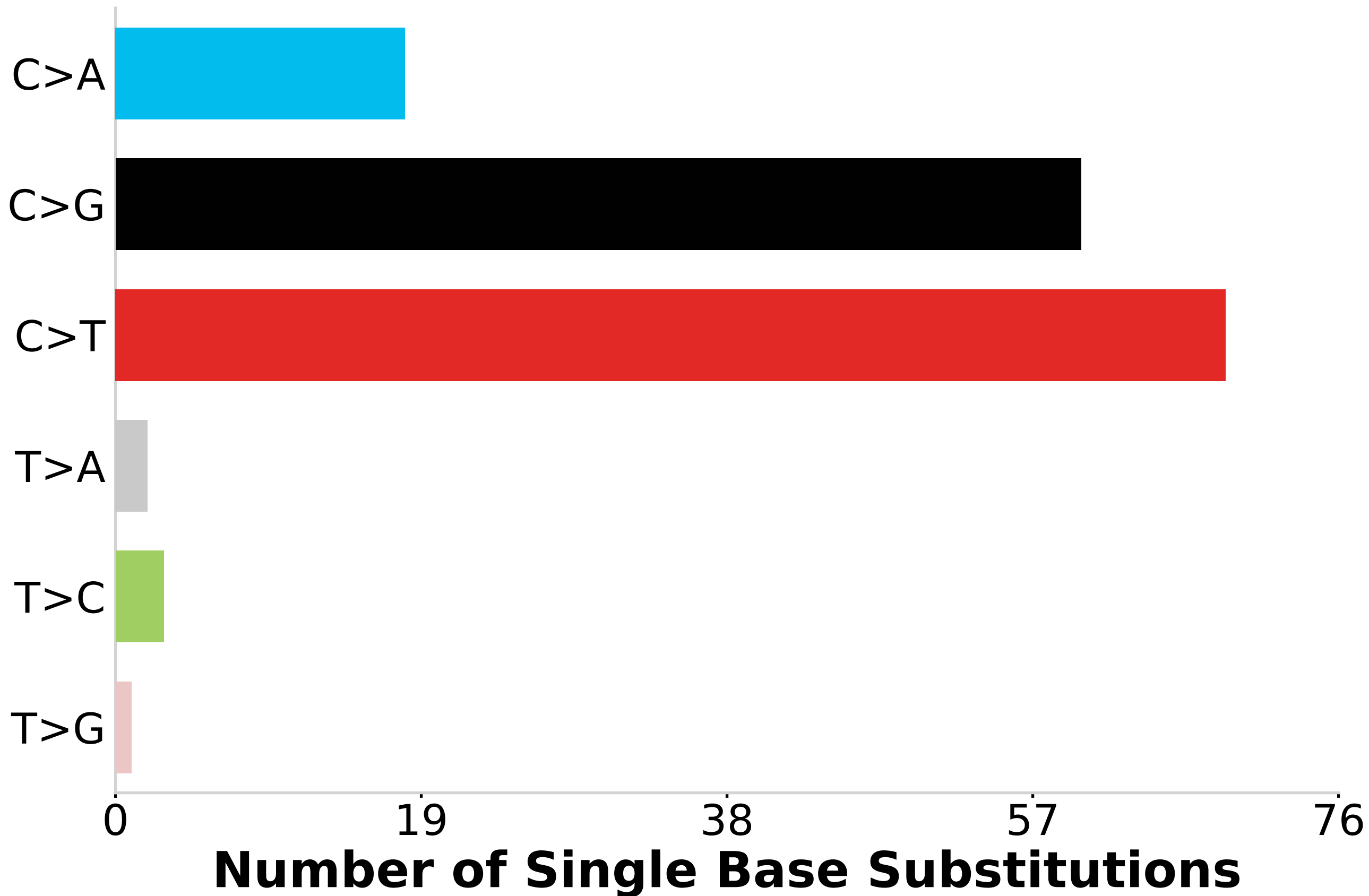
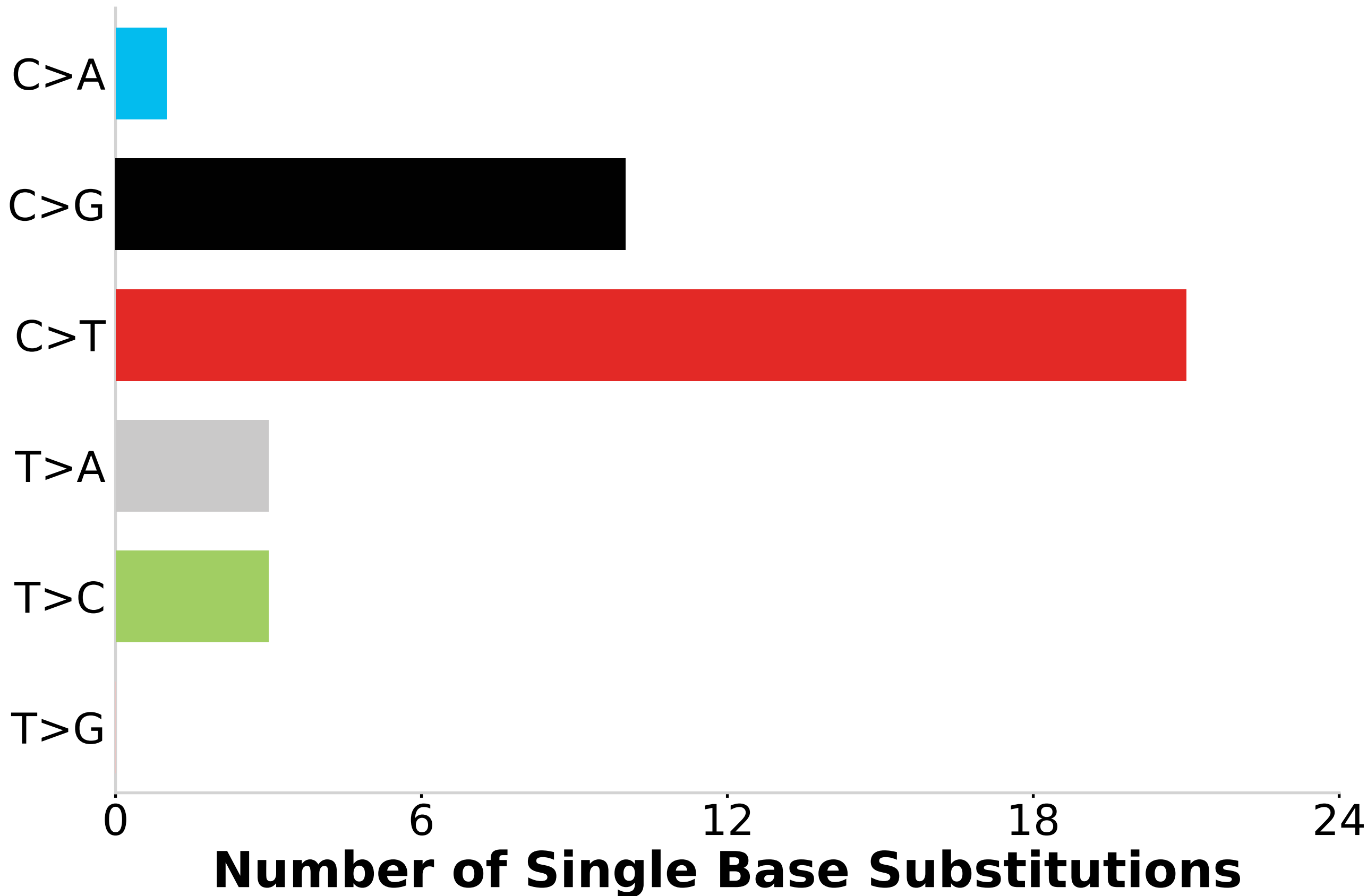


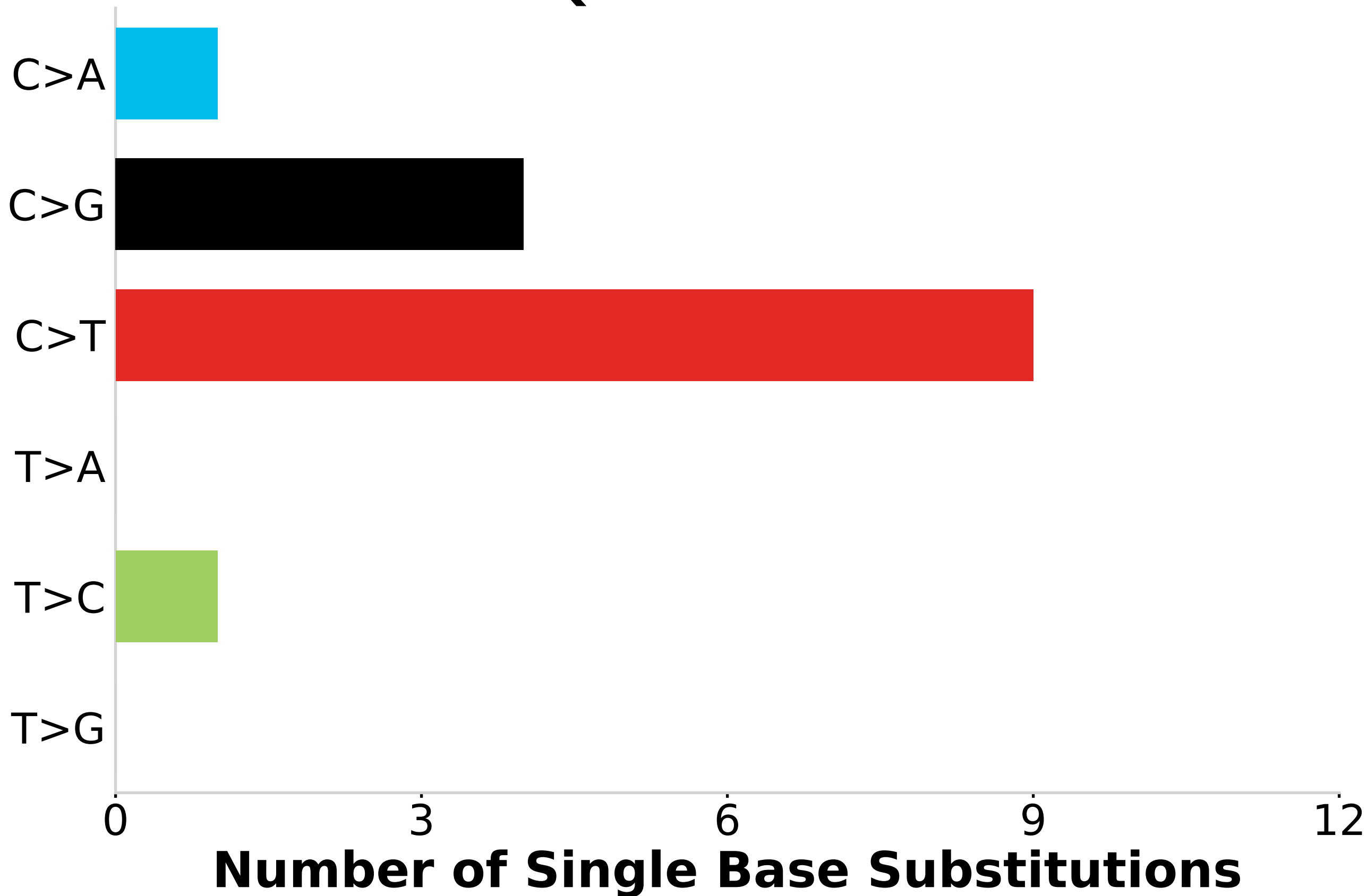
TCGA-2F-A9KO-01A-11D-A38G-08: 153 sub



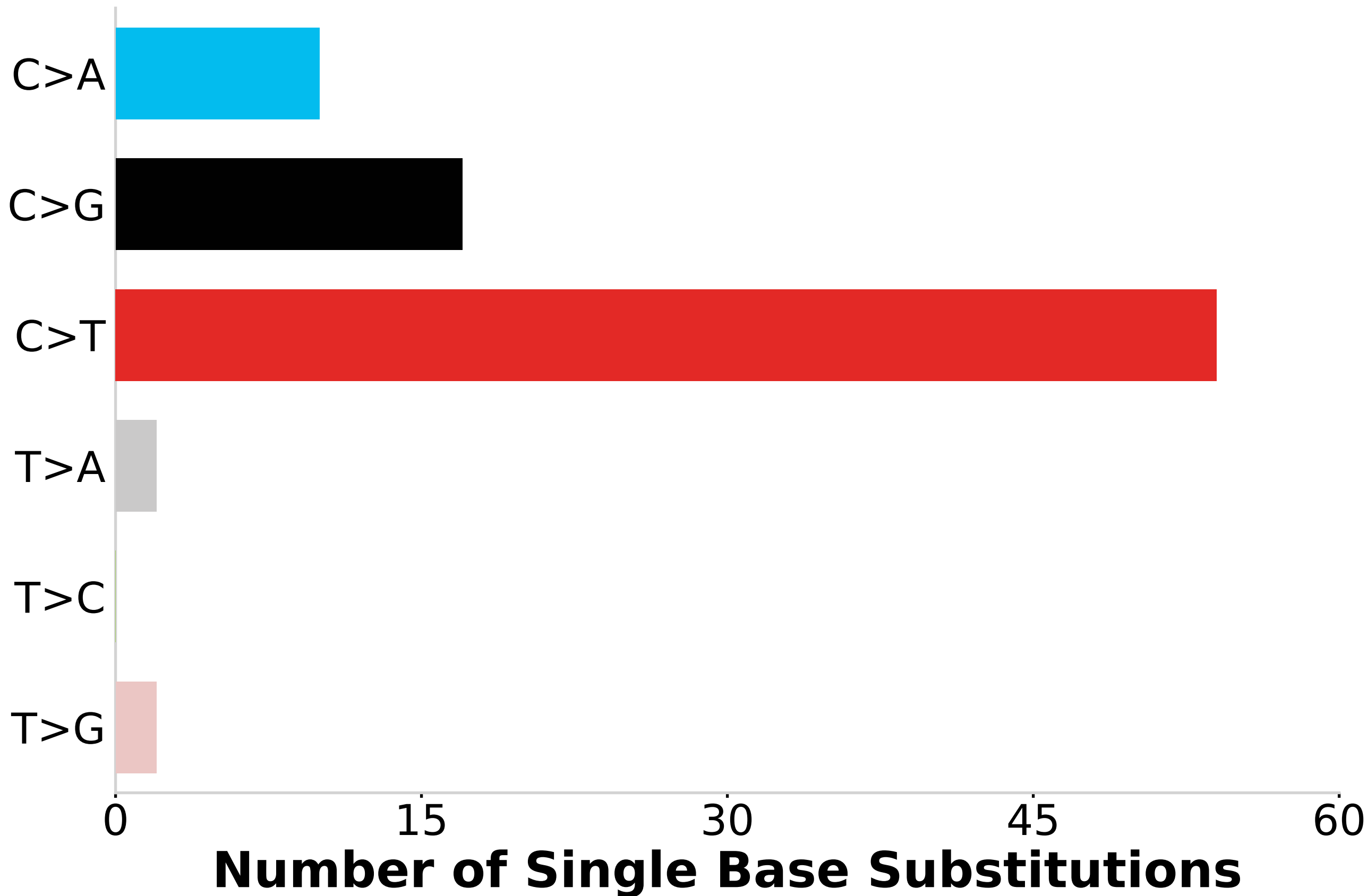
TCGA-2F-A9KP-01A-11D-A38G-08: 38 subs



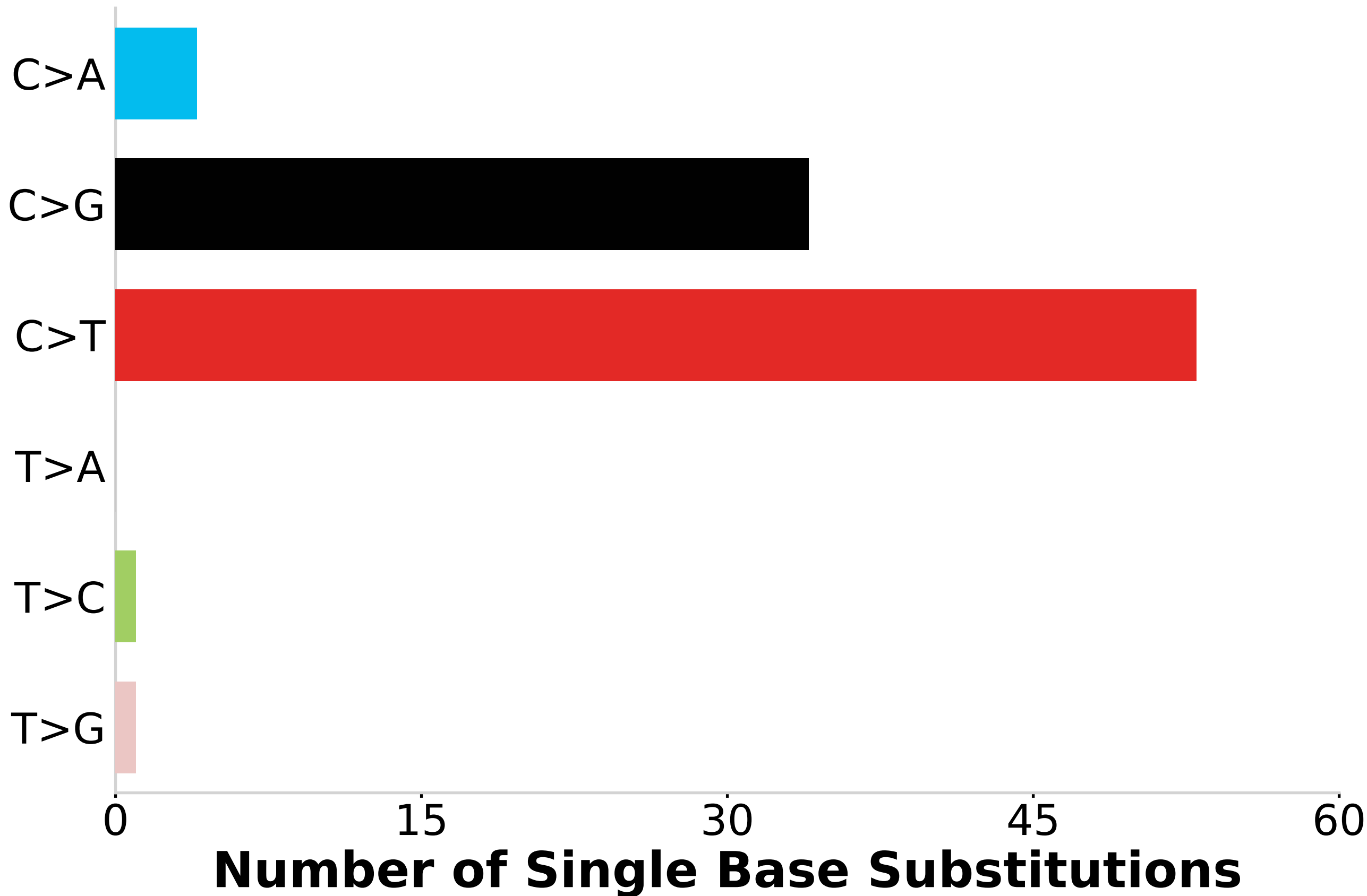
TCGA-2F-A9KQ-01A-11D-A38G-08: 15 subs



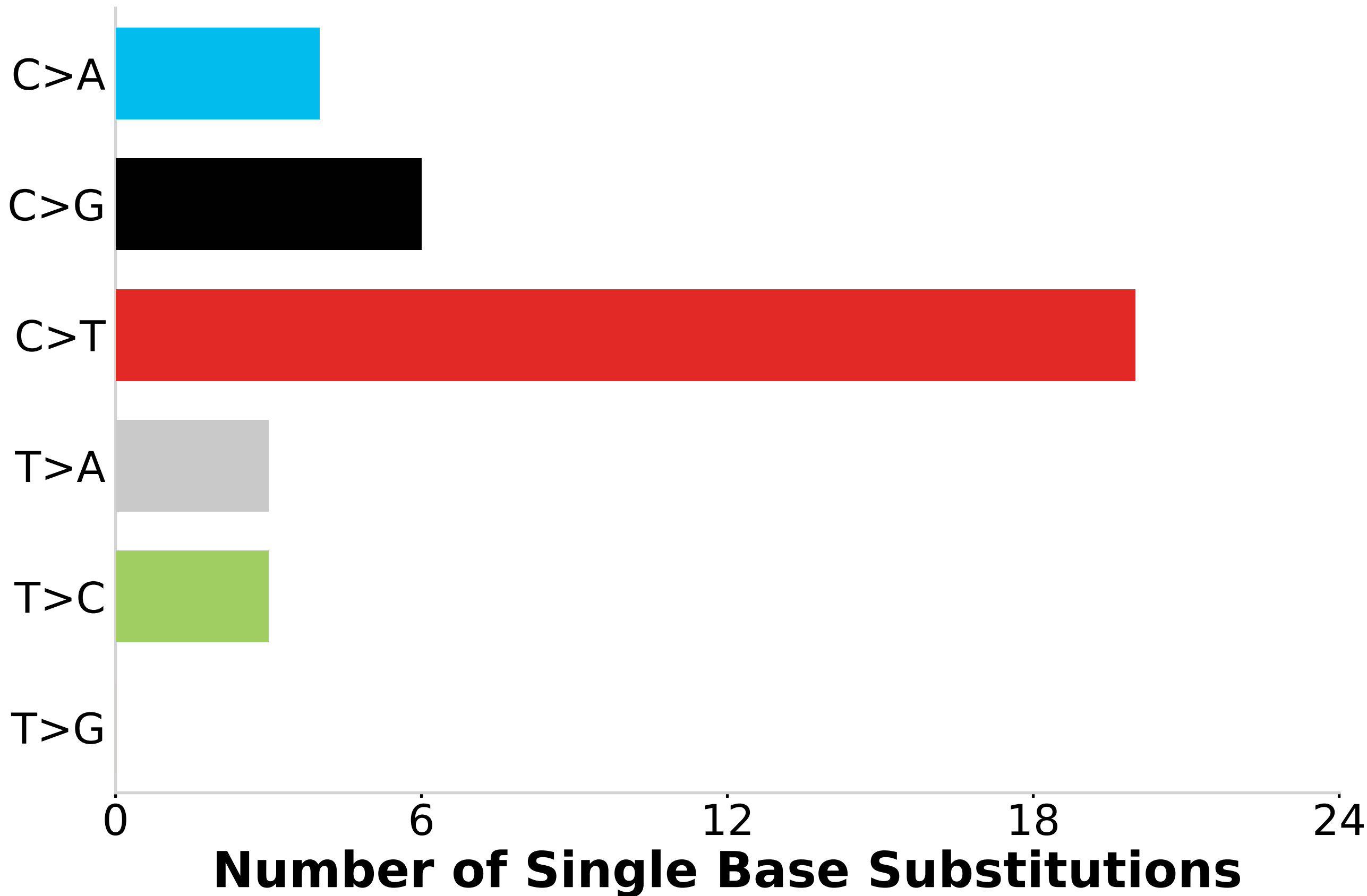
TCGA-2F-A9KR-01A-11D-A38G-08: 85 subs



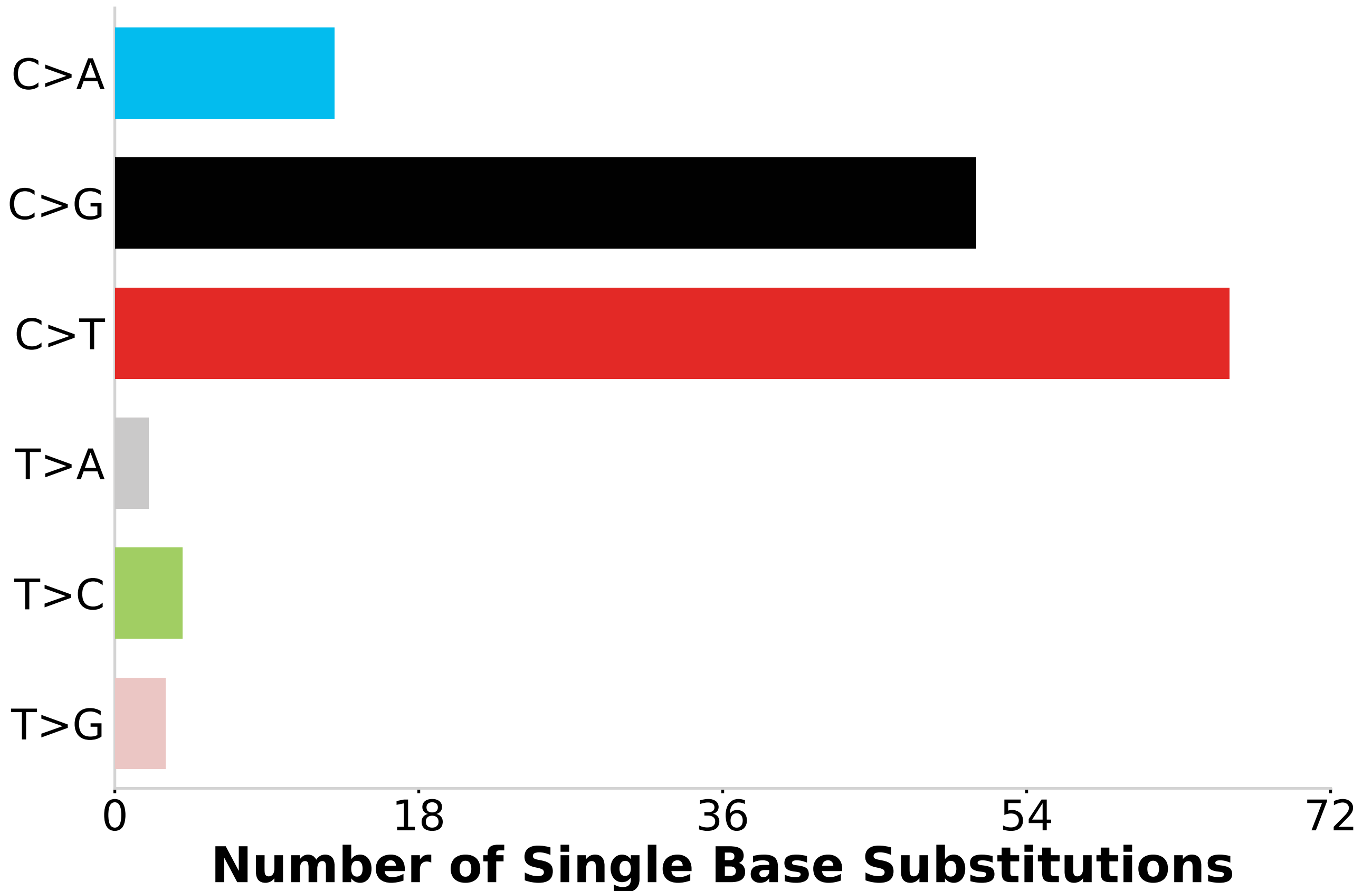
TCGA-2F-A9KT-01A-11D-A38G-08: 93 subs



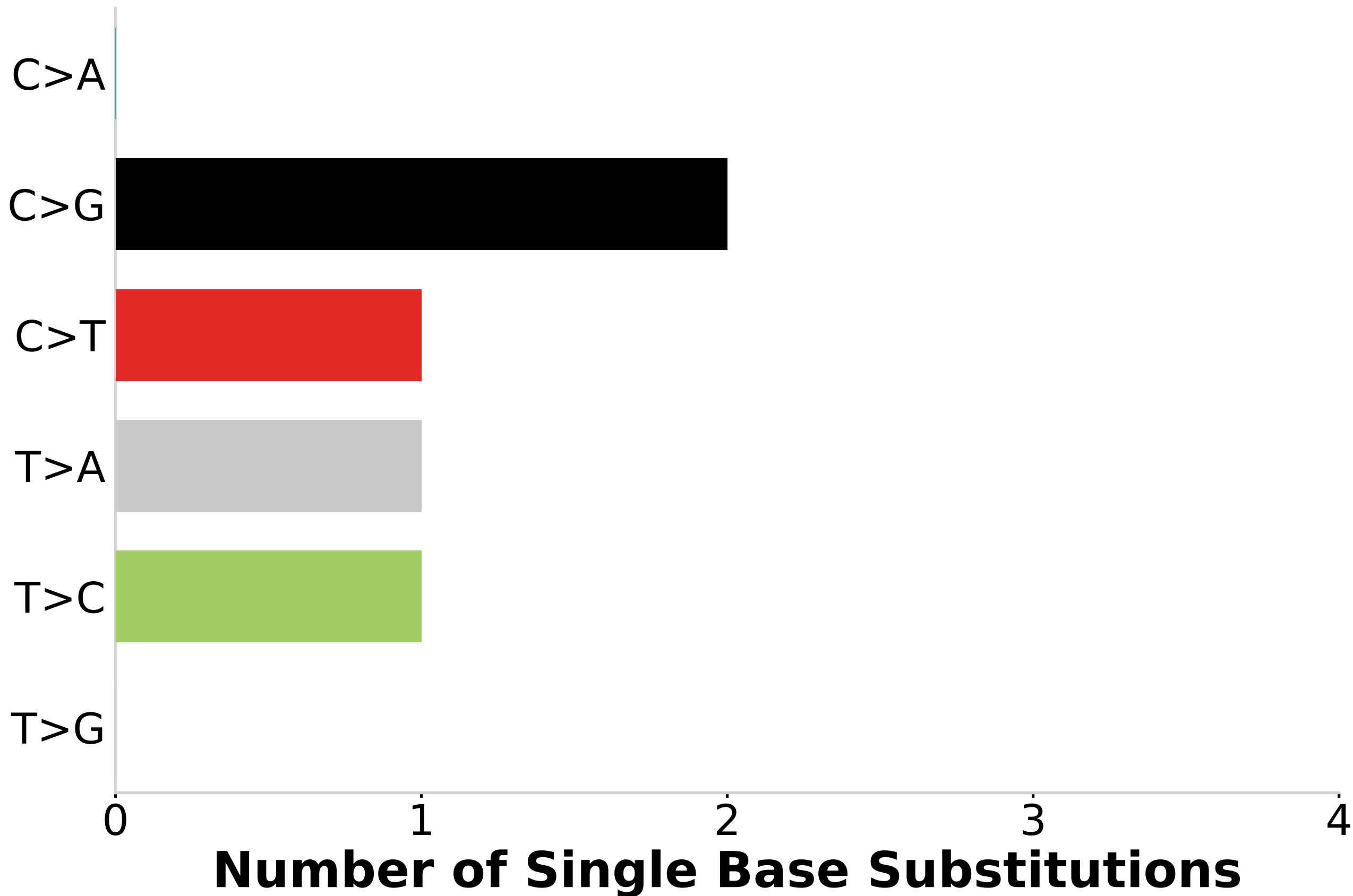
TCGA-2F-A9KW-01A-11D-A38G-08: 36 subs



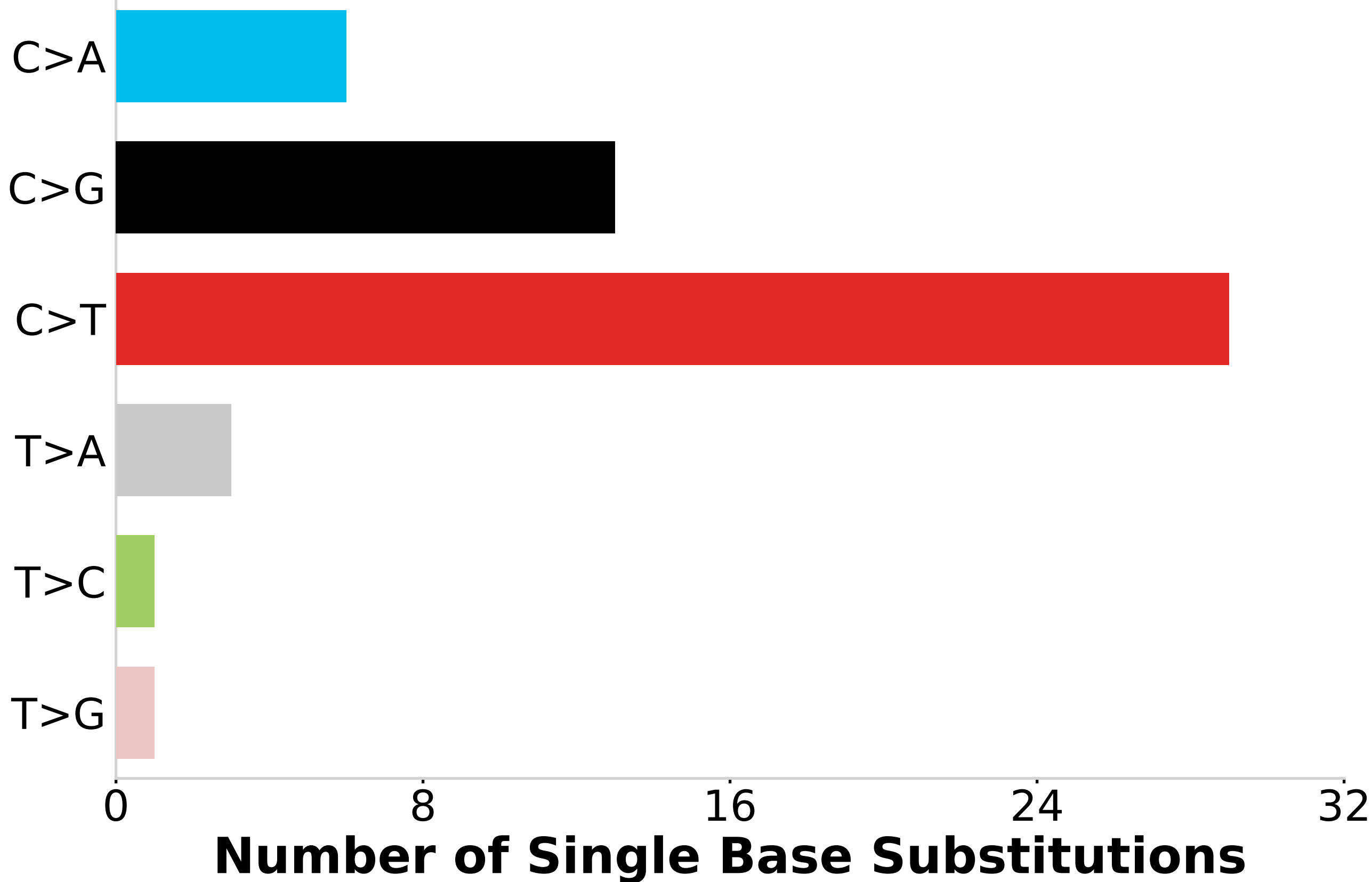
TCGA-4Z-AA7M-01A-11D-A391-08: 139 sub



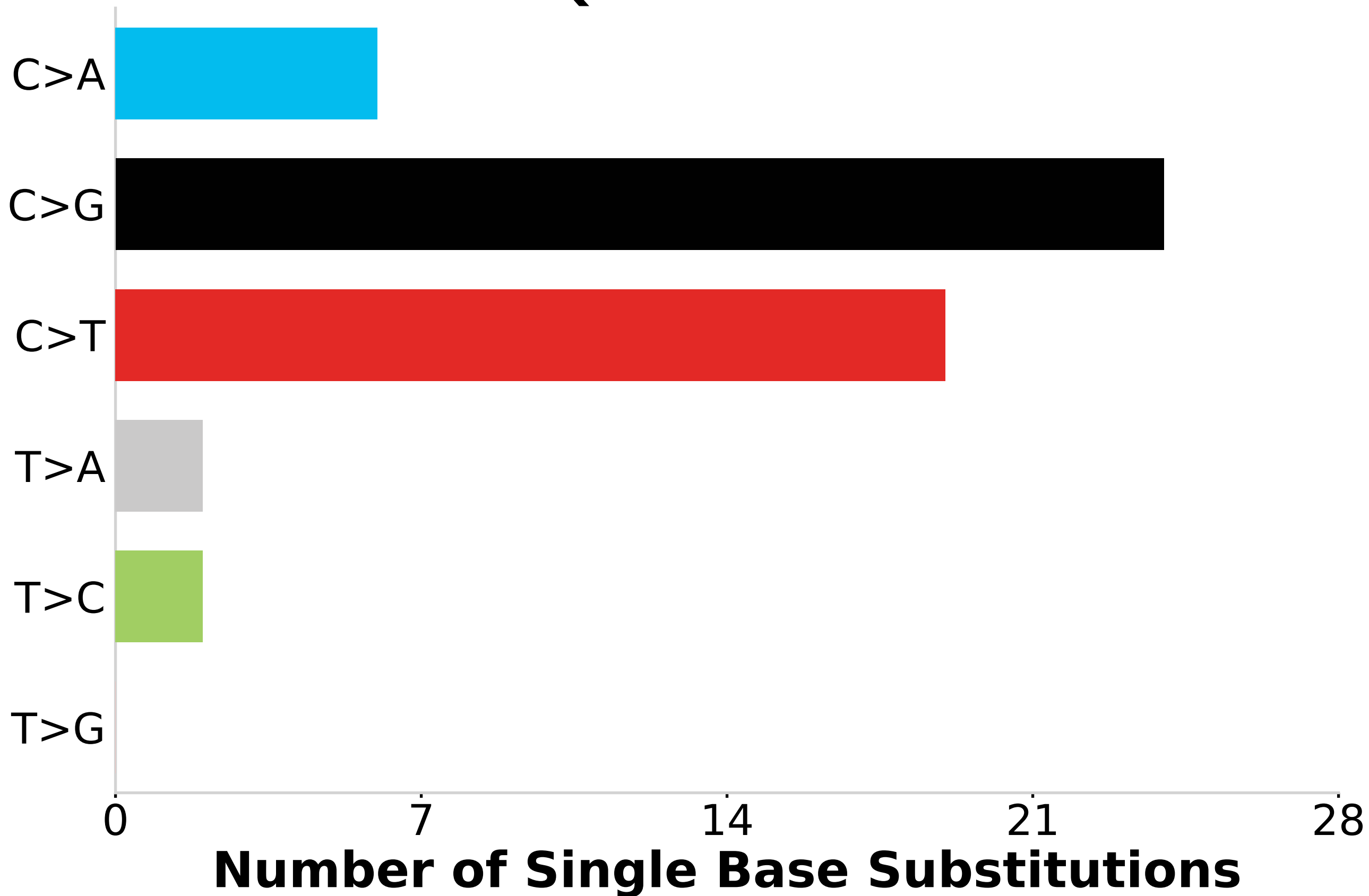
TCGA-4Z-AA7N-01A-11D-A391-08: 5 subs



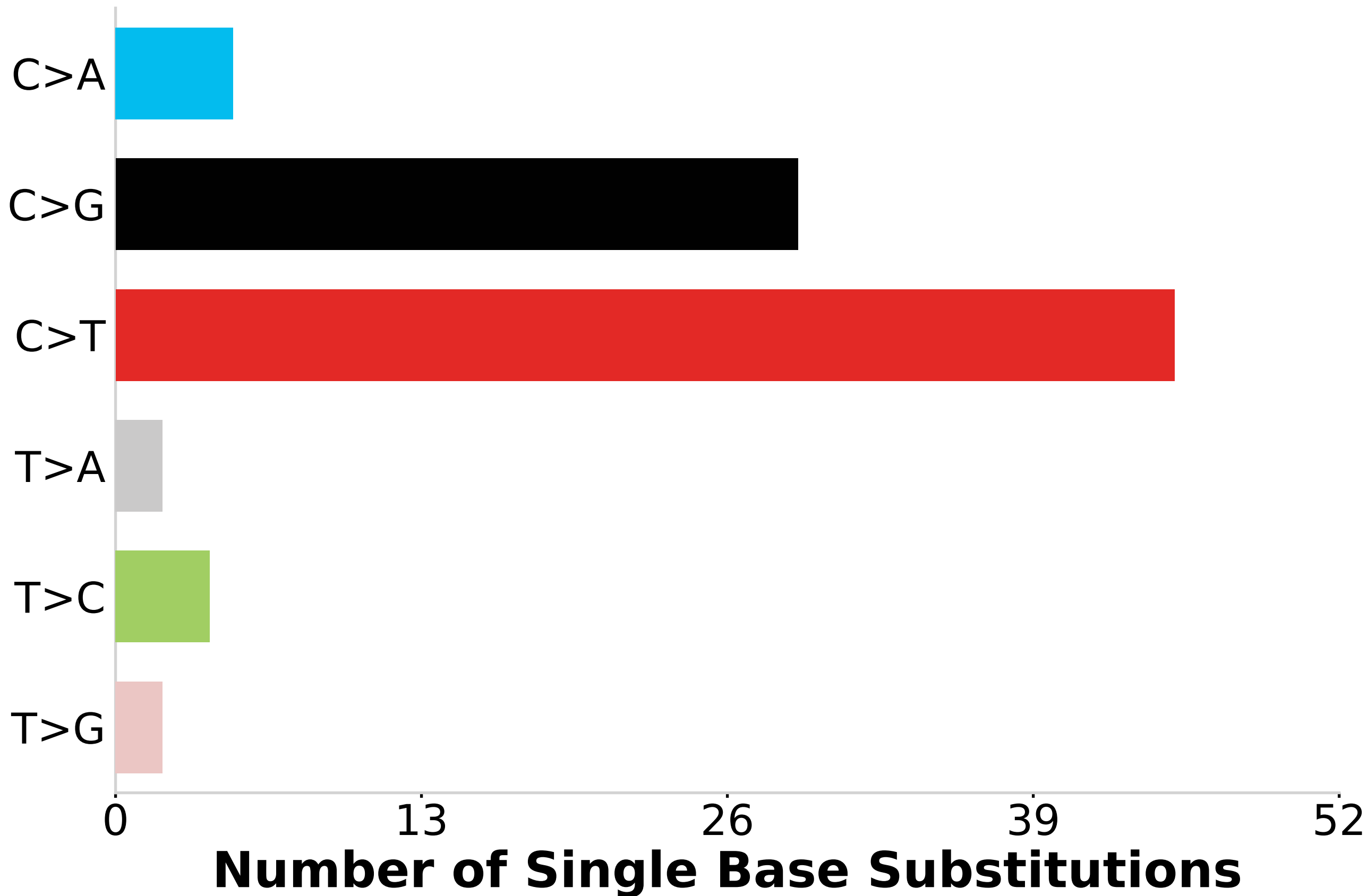
TCGA-4Z-AA70-01A-31D-A391-08: 53 subs



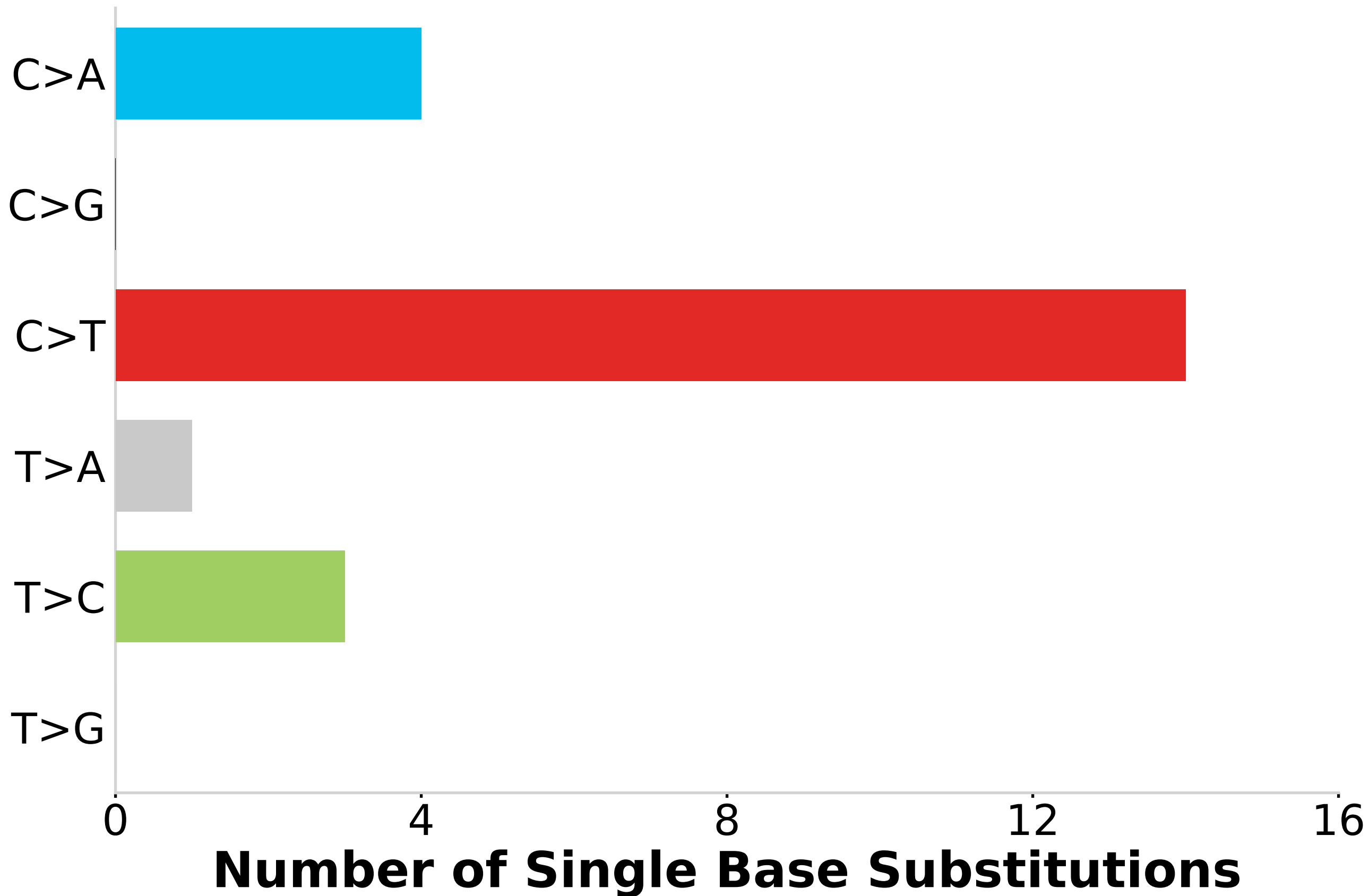
TCGA-4Z-AA7Q-01A-11D-A391-08: 53 subs



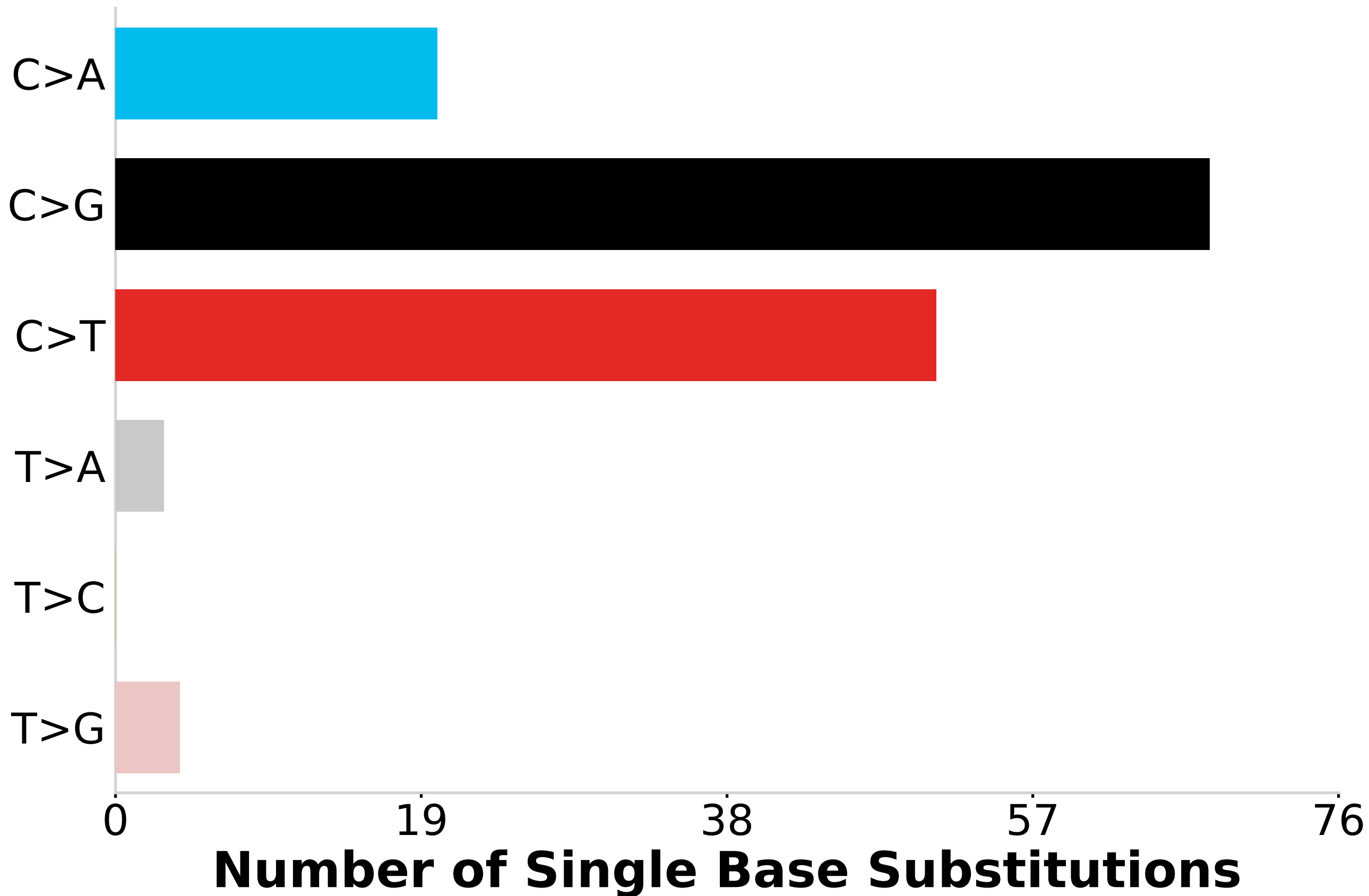
TCGA-4Z-AA7R-01A-11D-A391-08: 87 subs



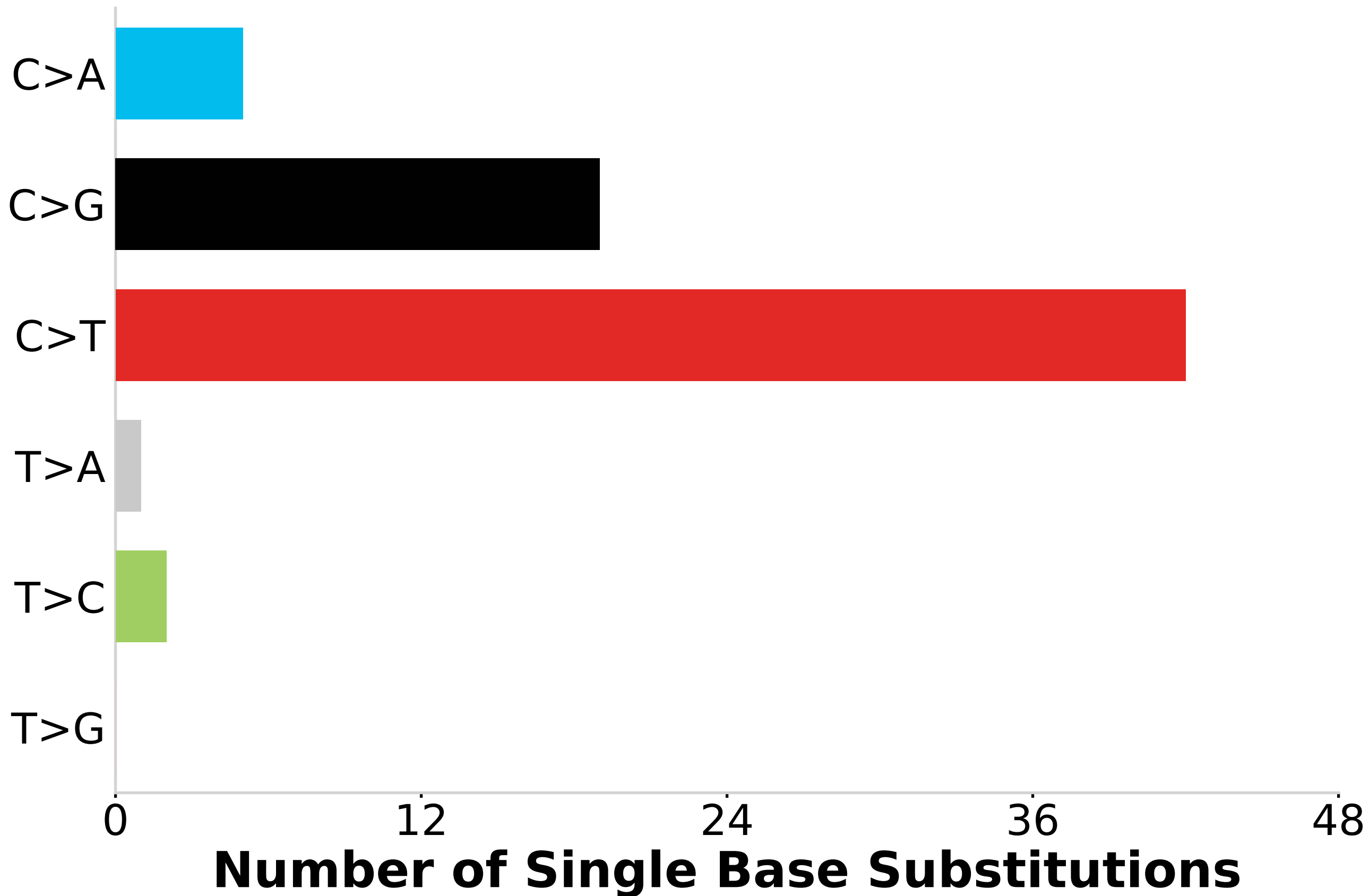
TCGA-4Z-AA7S-01A-11D-A391-08: 22 subs



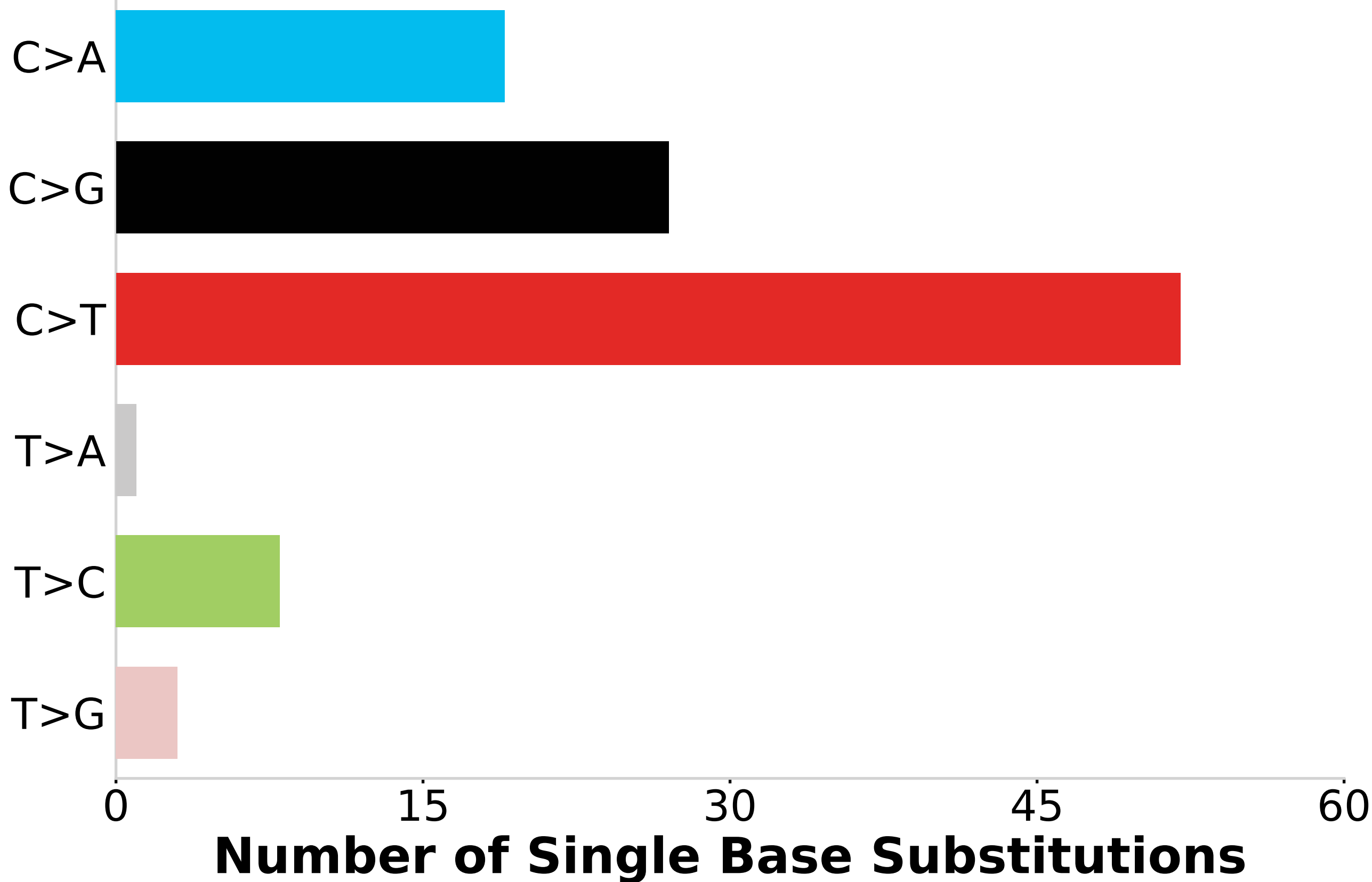
TCGA-4Z-AA7W-01A-11D-A391-08: 146 sub



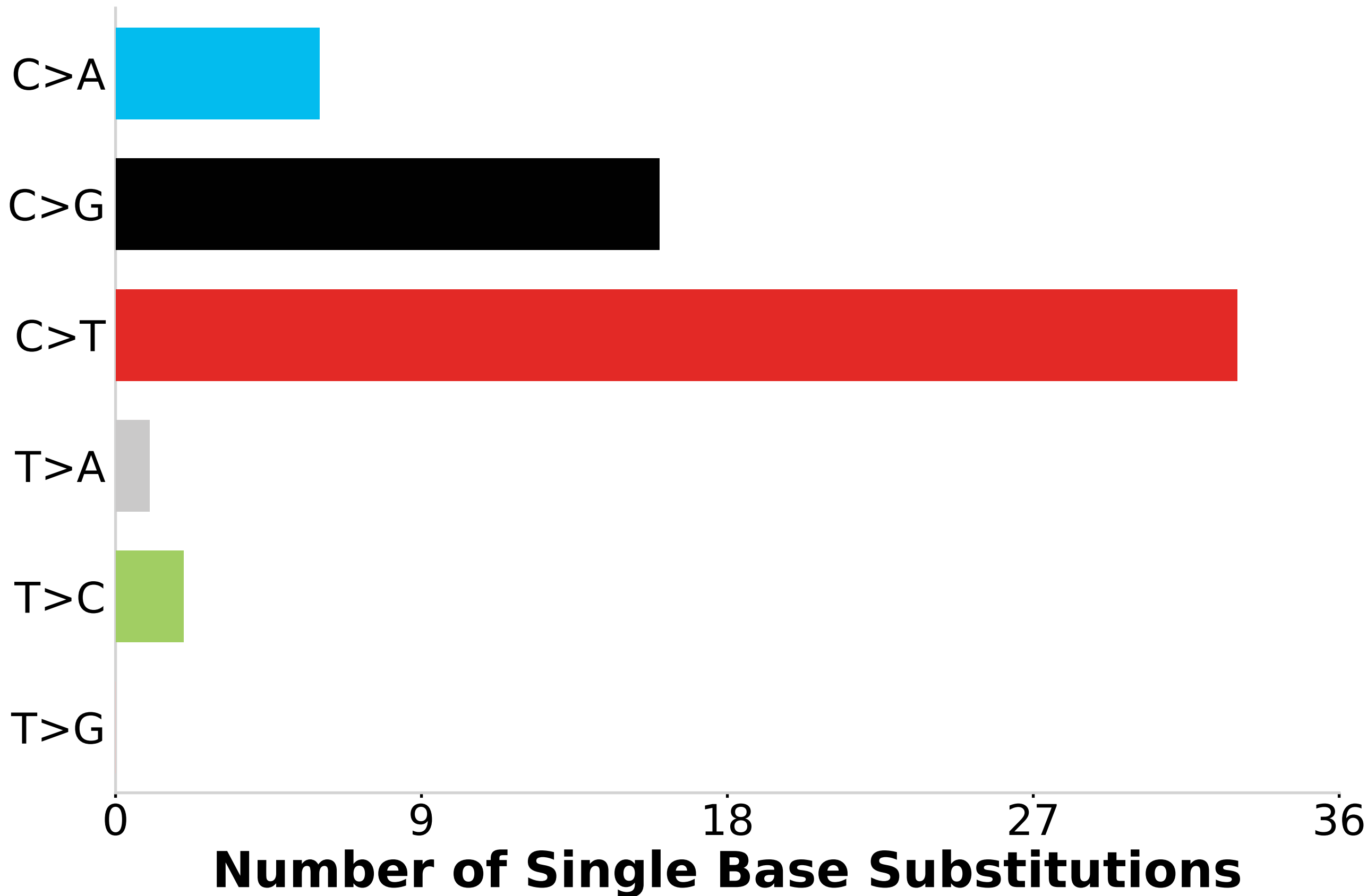
TCGA-4Z-AA7Y-01A-11D-A391-08: 69 subs



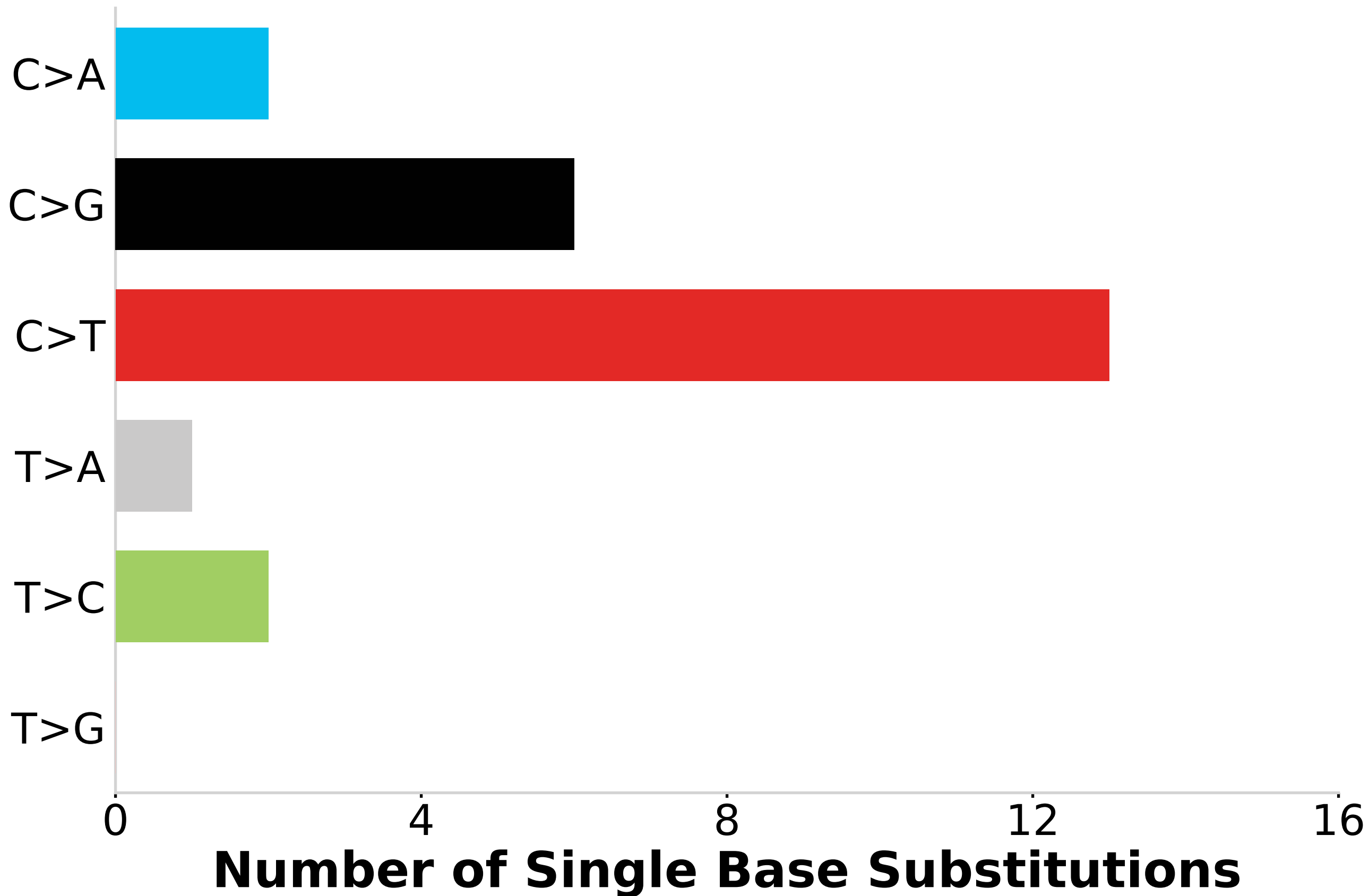
TCGA-4Z-AA80-01A-11D-A391-08: 110 sub



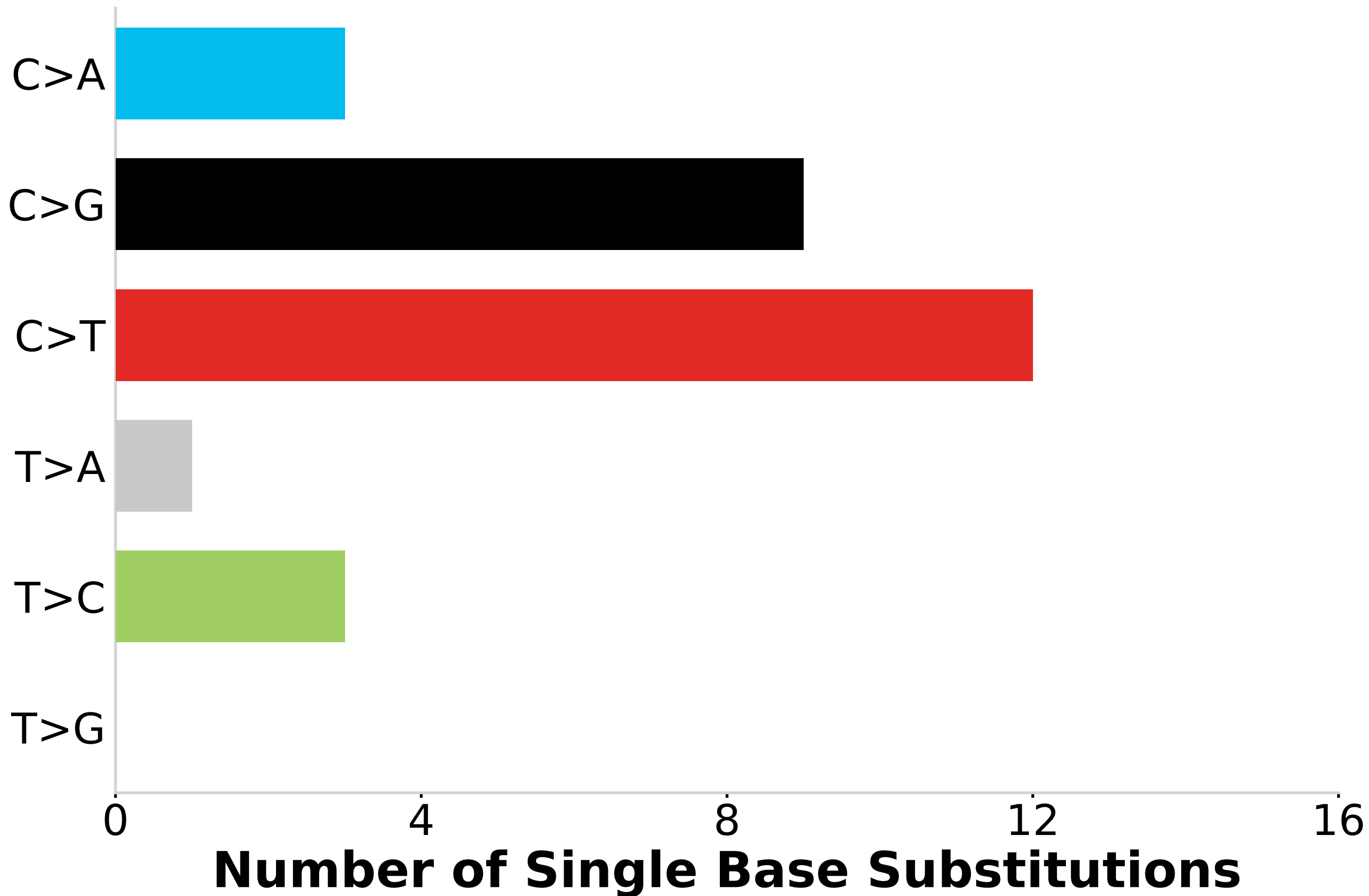
TCGA-4Z-AA81-01A-11D-A391-08: 58 subs



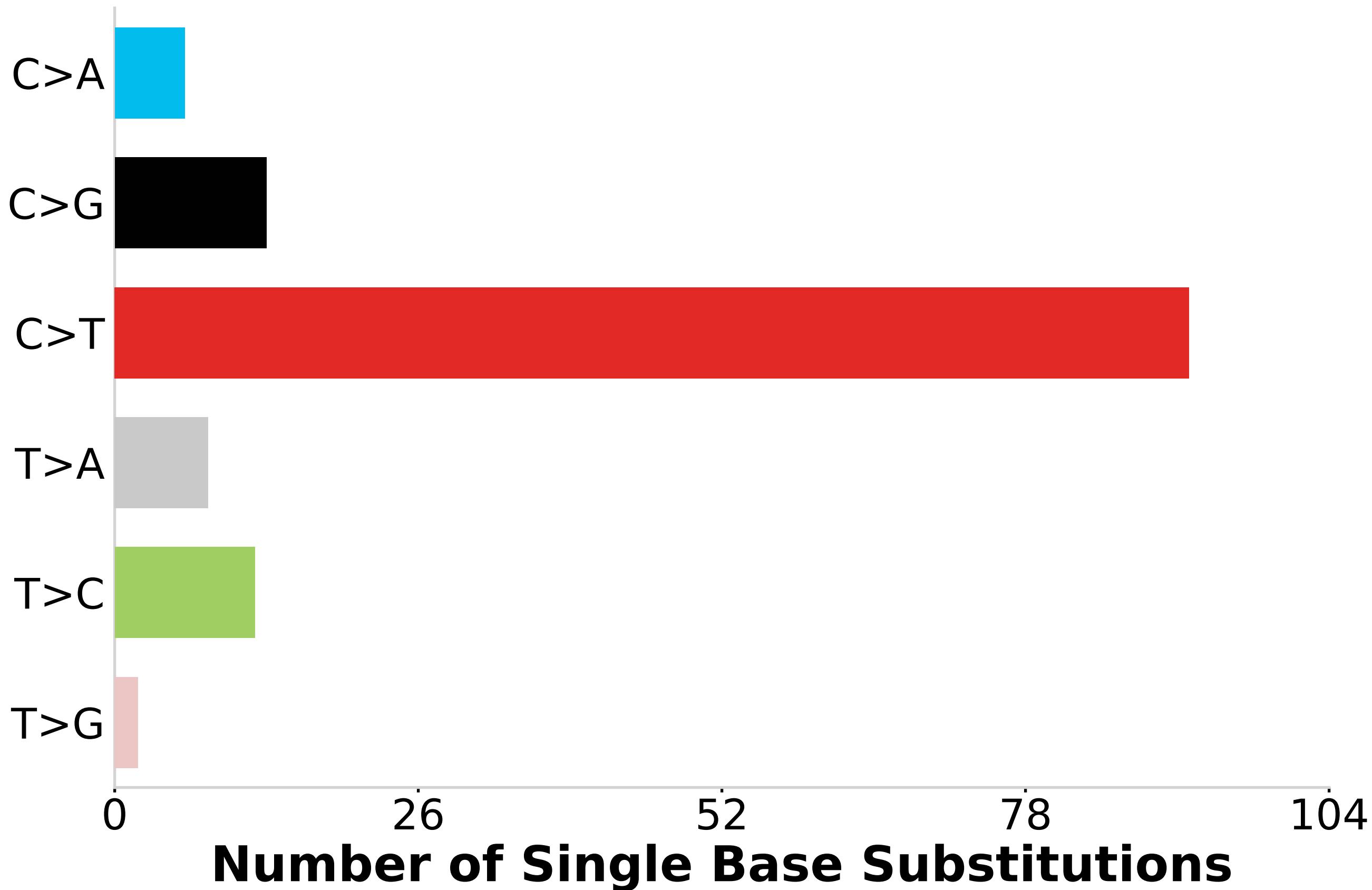
TCGA-4Z-AA82-01A-11D-A391-08: 24 subs



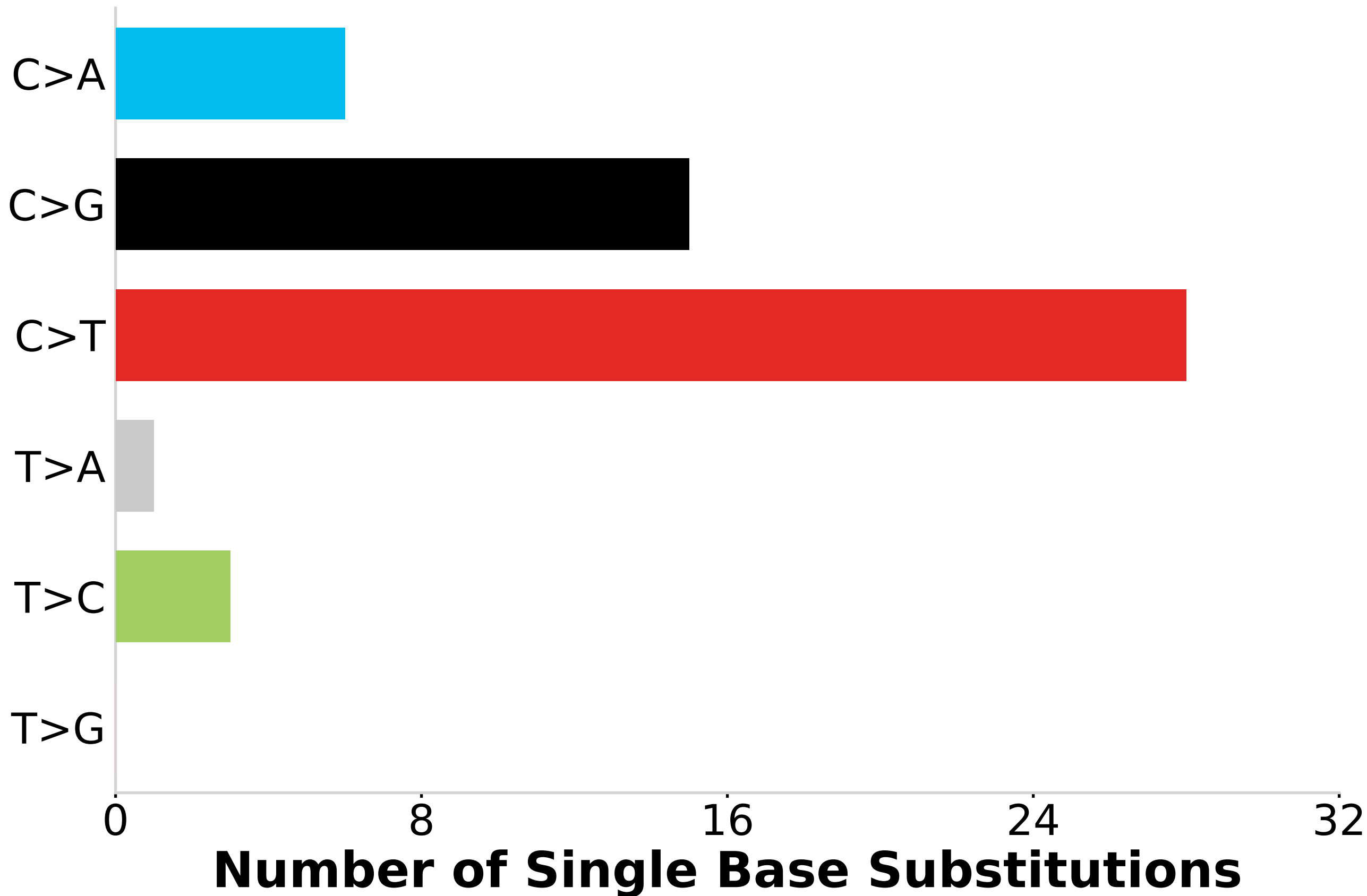
TCGA-4Z-AA83-01A-11D-A391-08: 28 subs



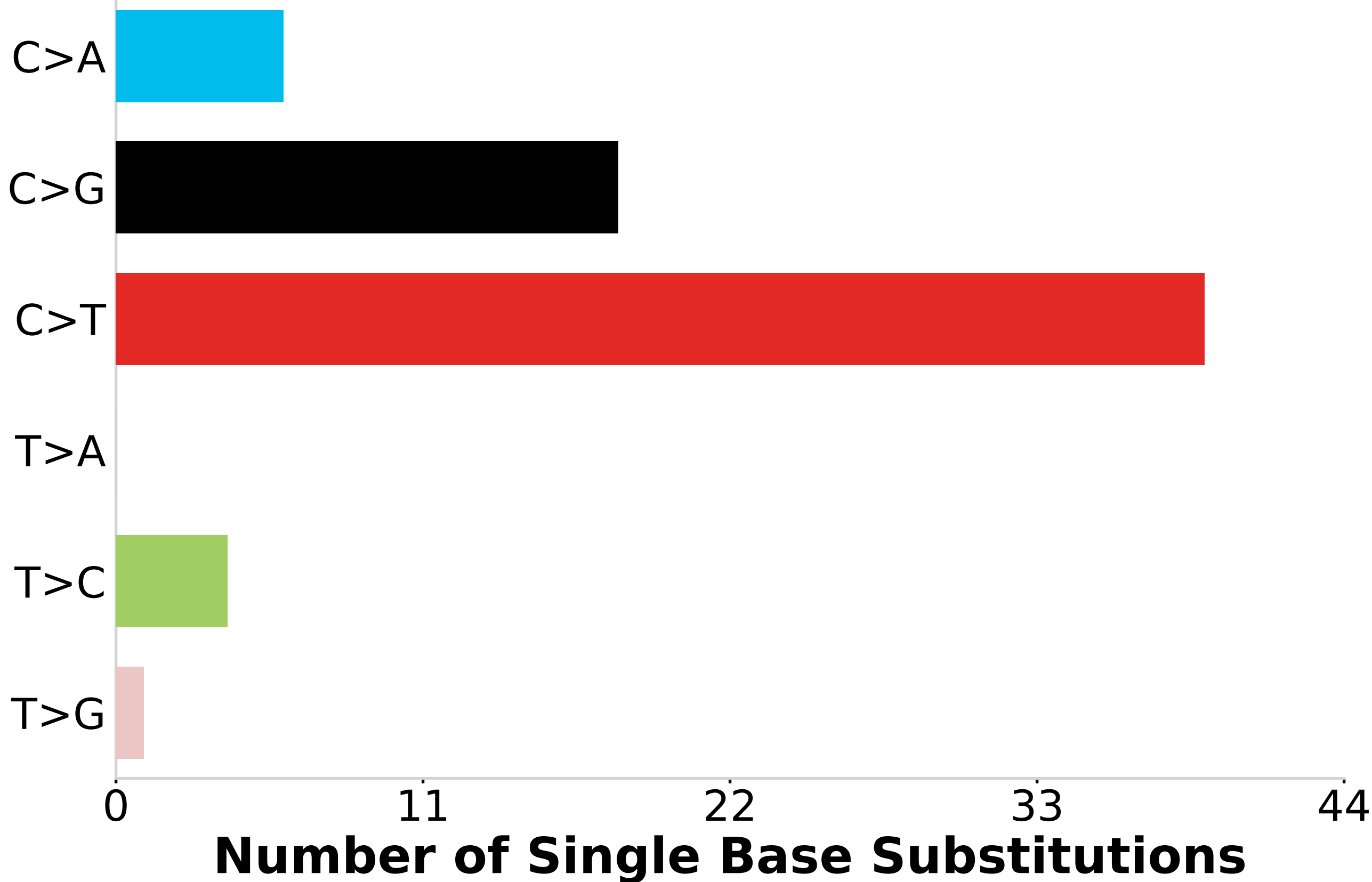
TCGA-4Z-AA84-01A-11D-A391-08: 133 sub



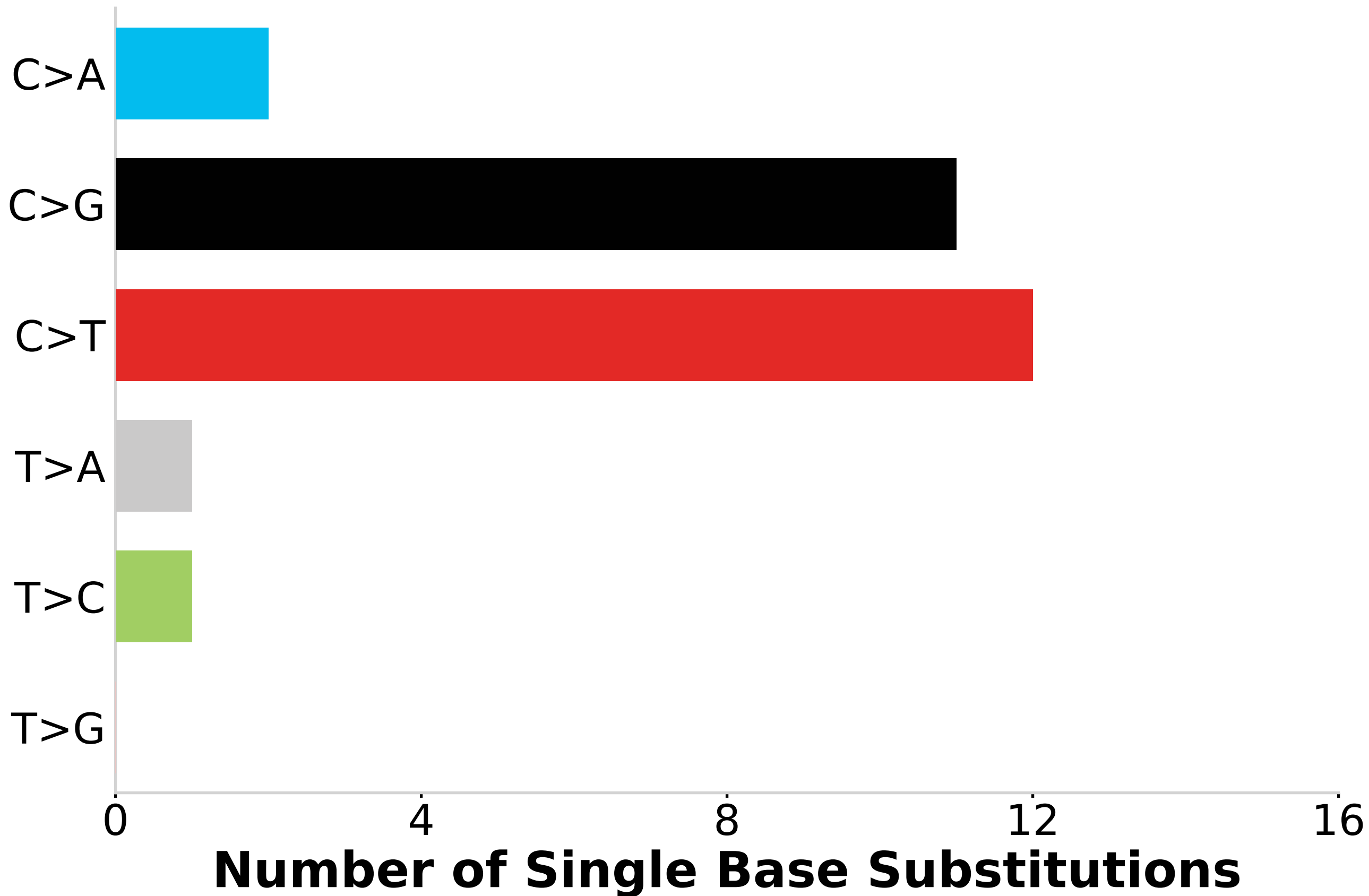
TCGA-4Z-AA86-01A-11D-A391-08: 53 subs



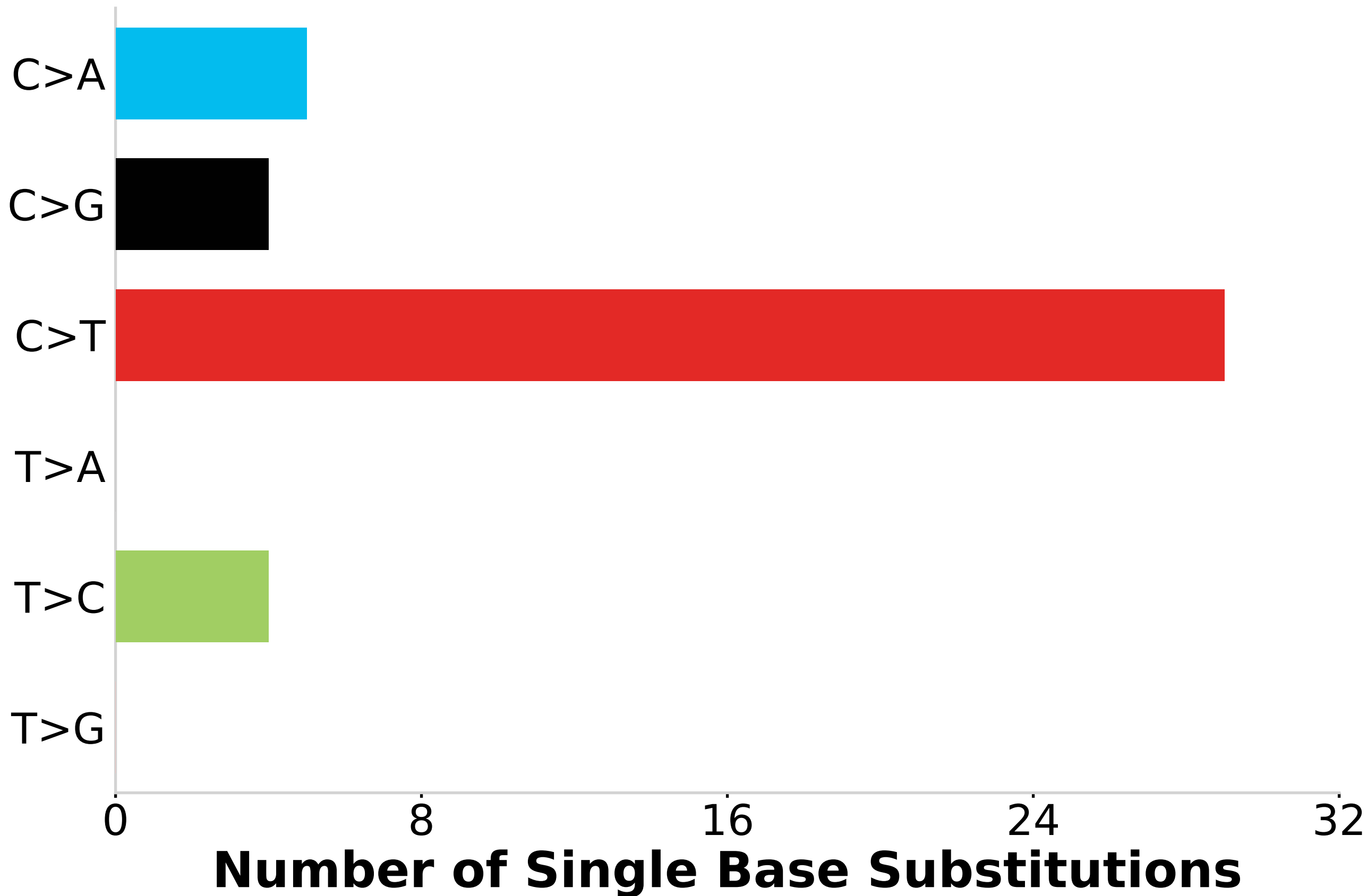
TCGA-4Z-AA87-01A-11D-A391-08: 68 subs



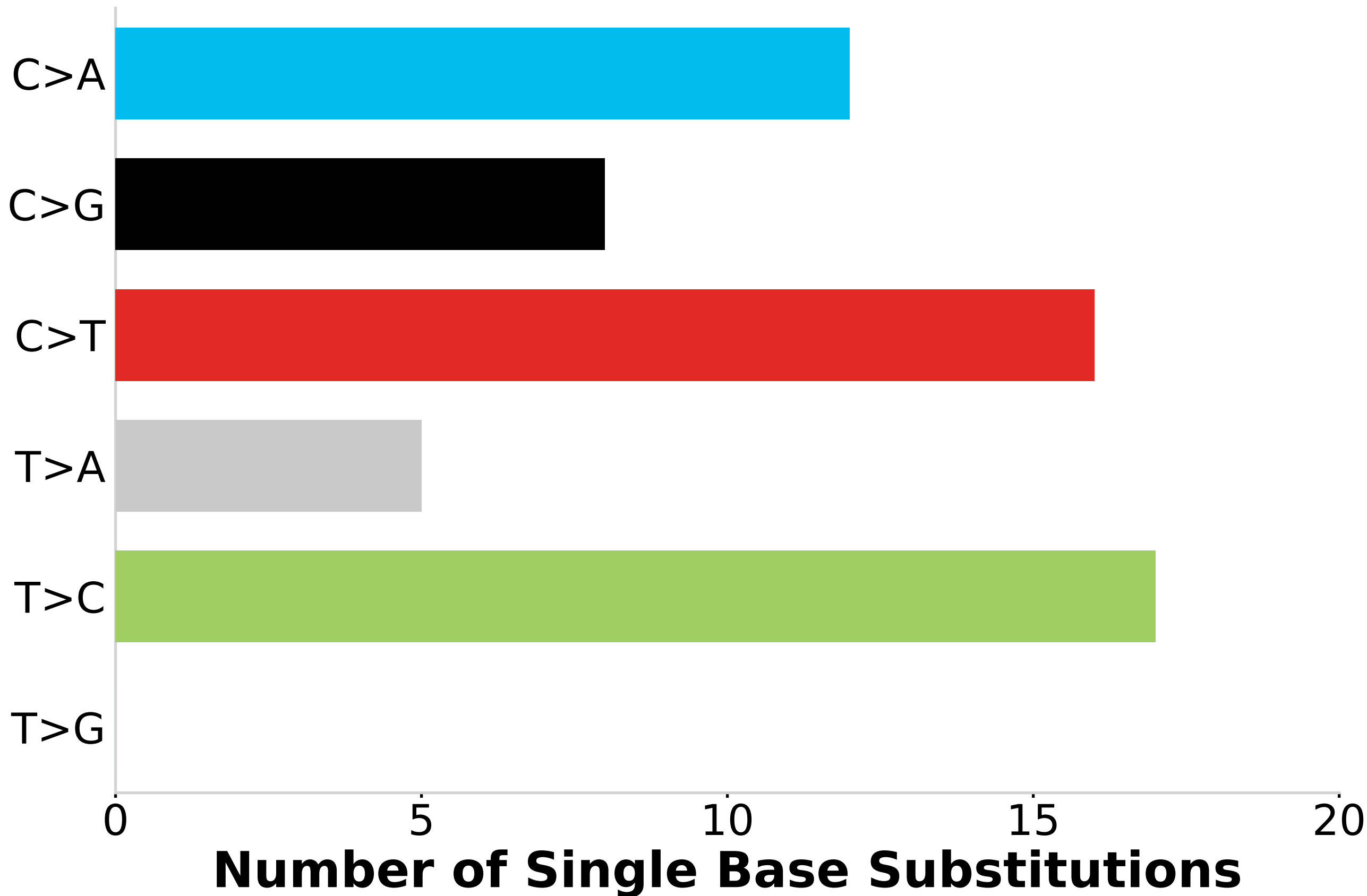
TCGA-4Z-AA89-01A-11D-A391-08: 27 subs



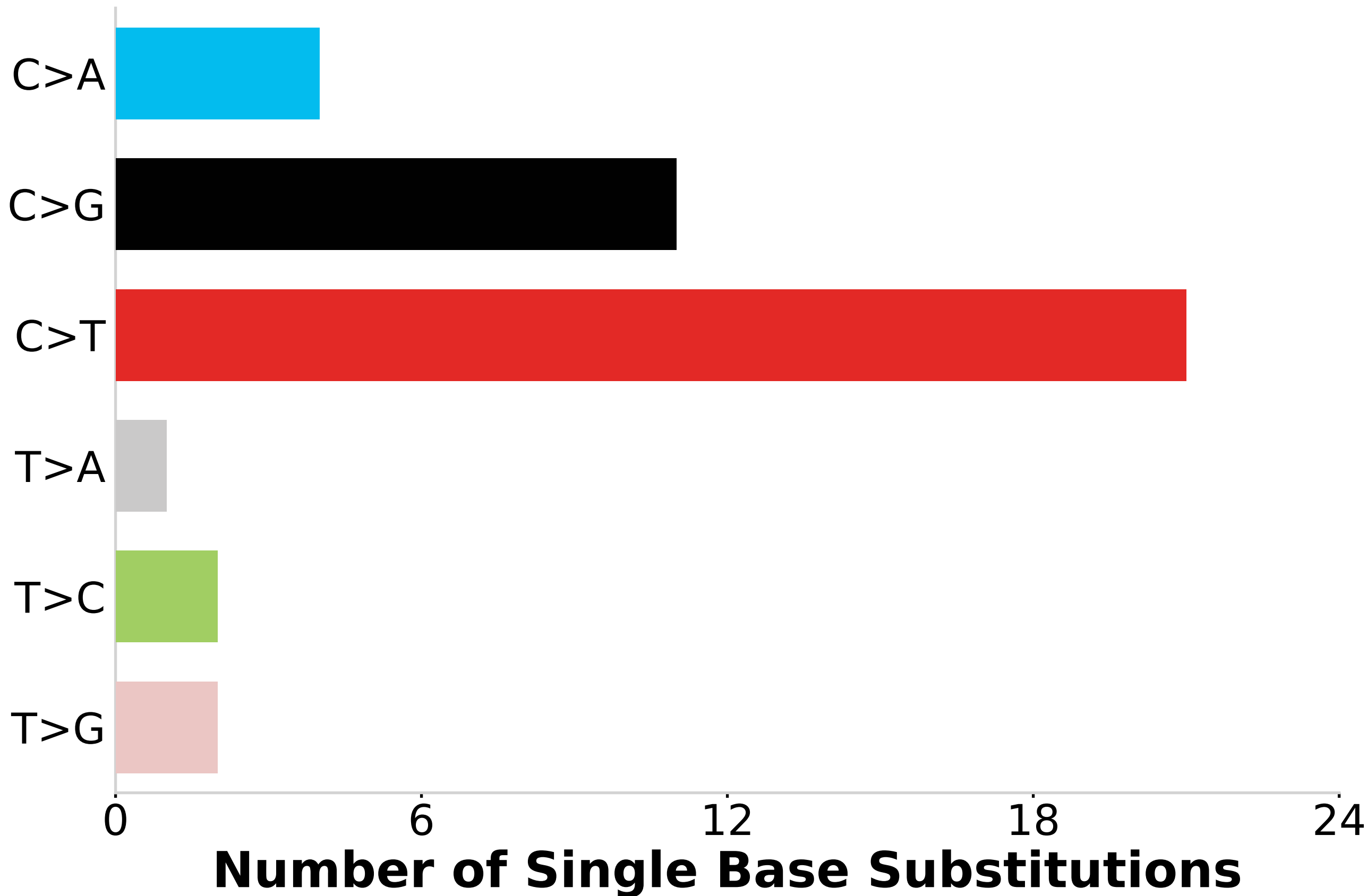
TCGA-5N-A9KI-01A-31D-A42E-08: 42 subs



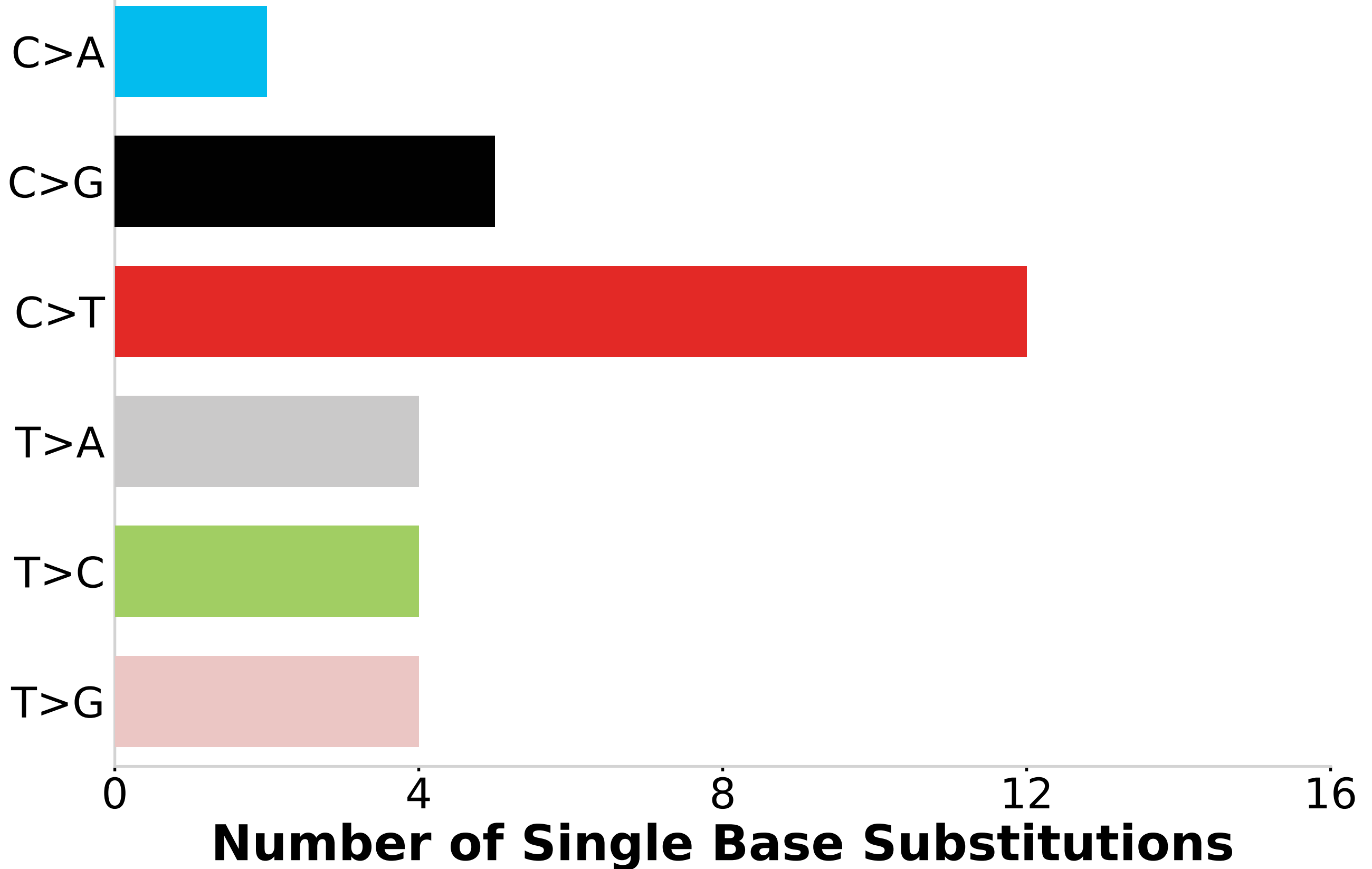
TCGA-5N-A9KM-01A-11D-A42E-08: 58 subs



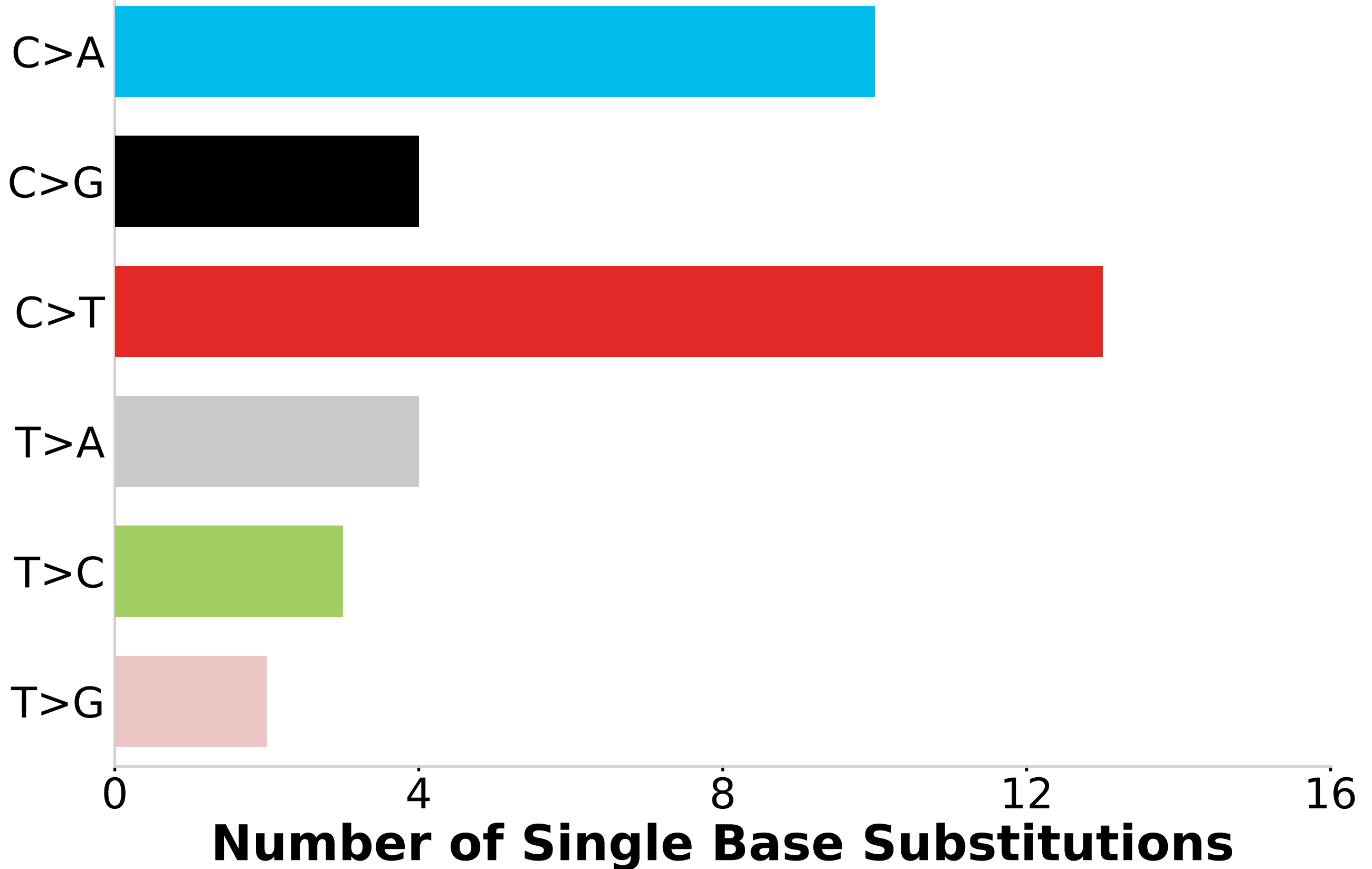
TCGA-BL-A0C8-01A-11D-A271-08: 41 subs



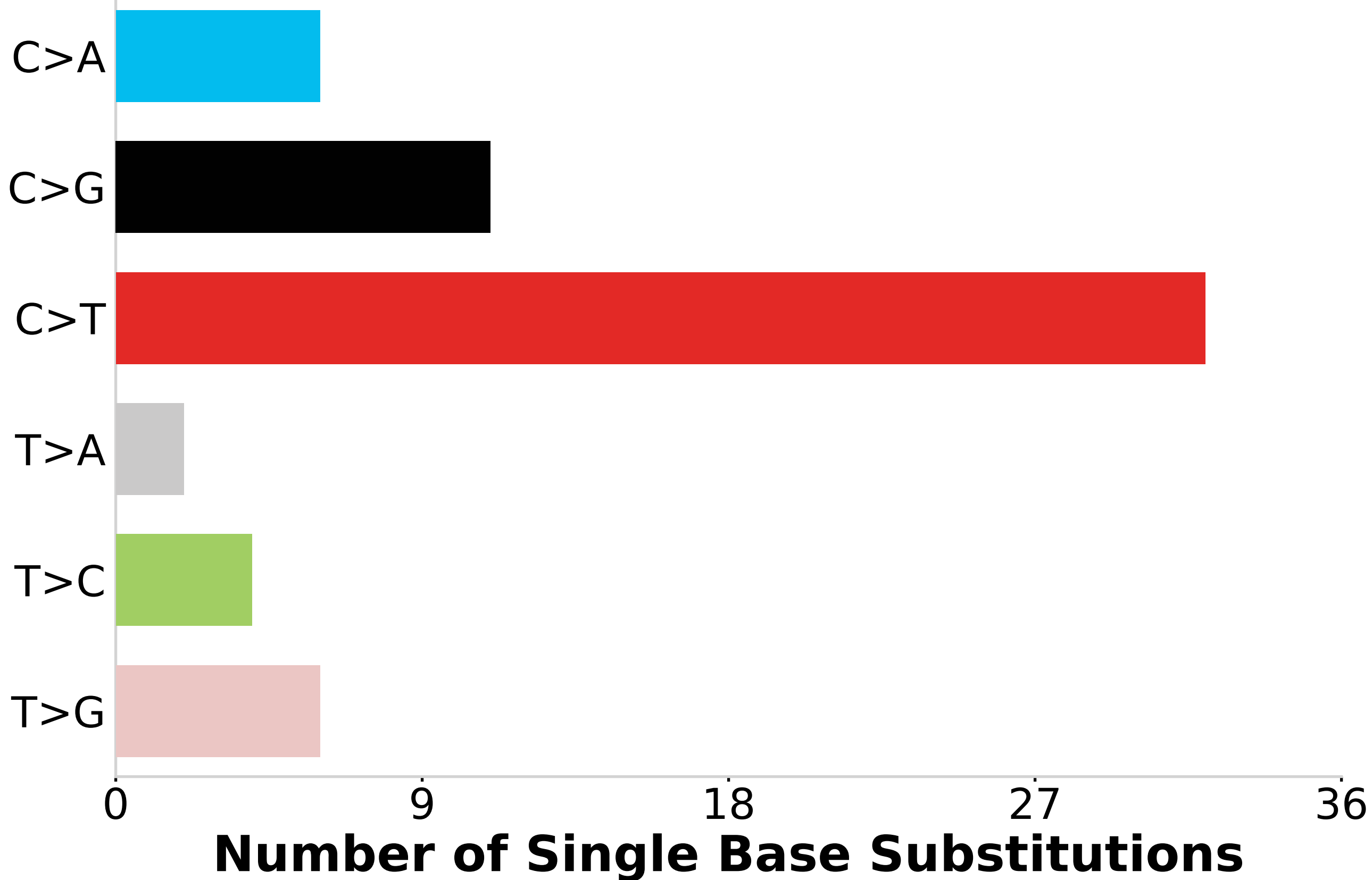
TCGA-BL-A13I-01A-11D-A271-08: 31 subs



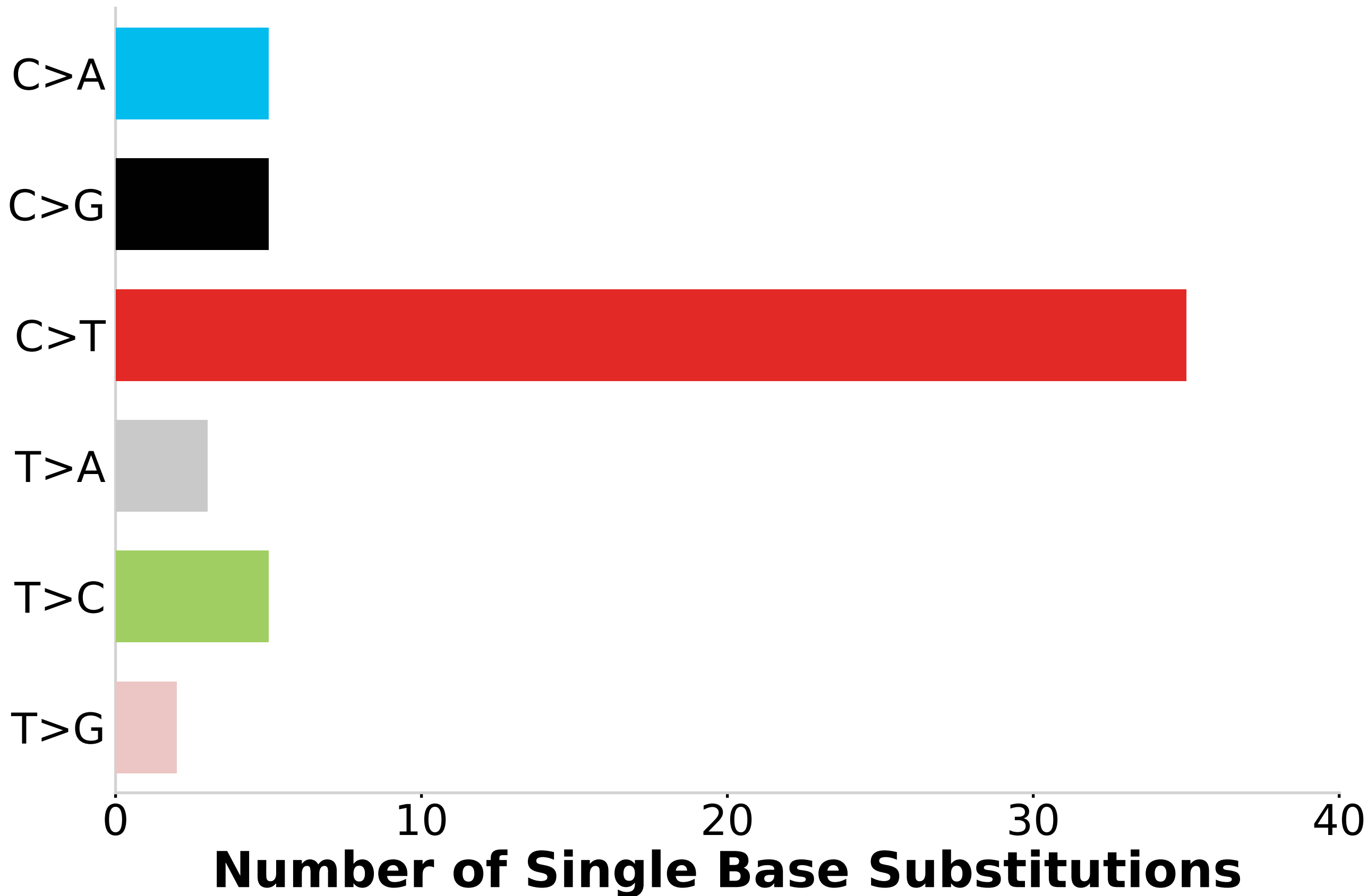
TCGA-BL-A13J-01A-11D-A271-08: 36 subs



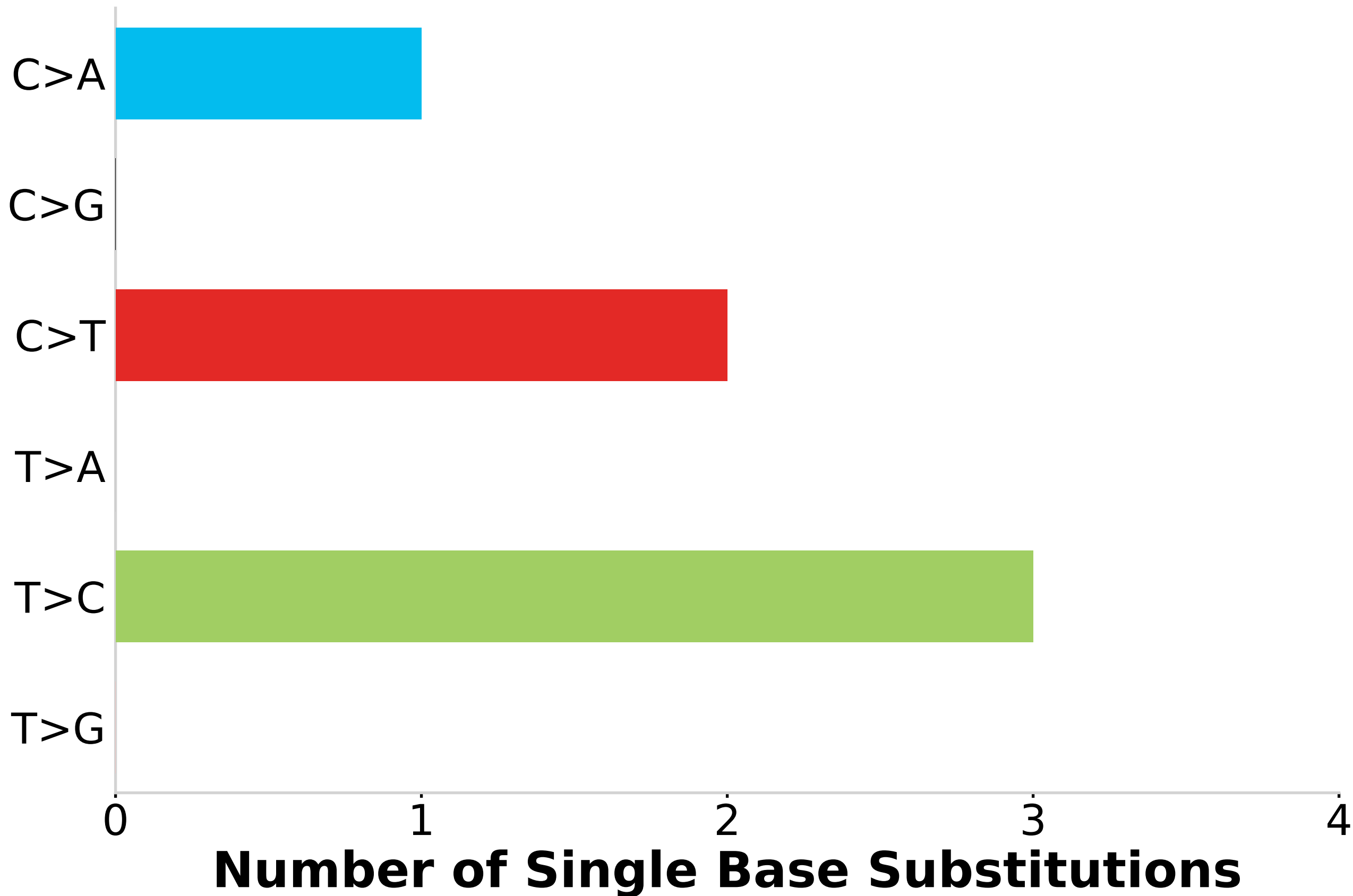
TCGA-BL-A3JM-01A-12D-A21A-08: 61 subs



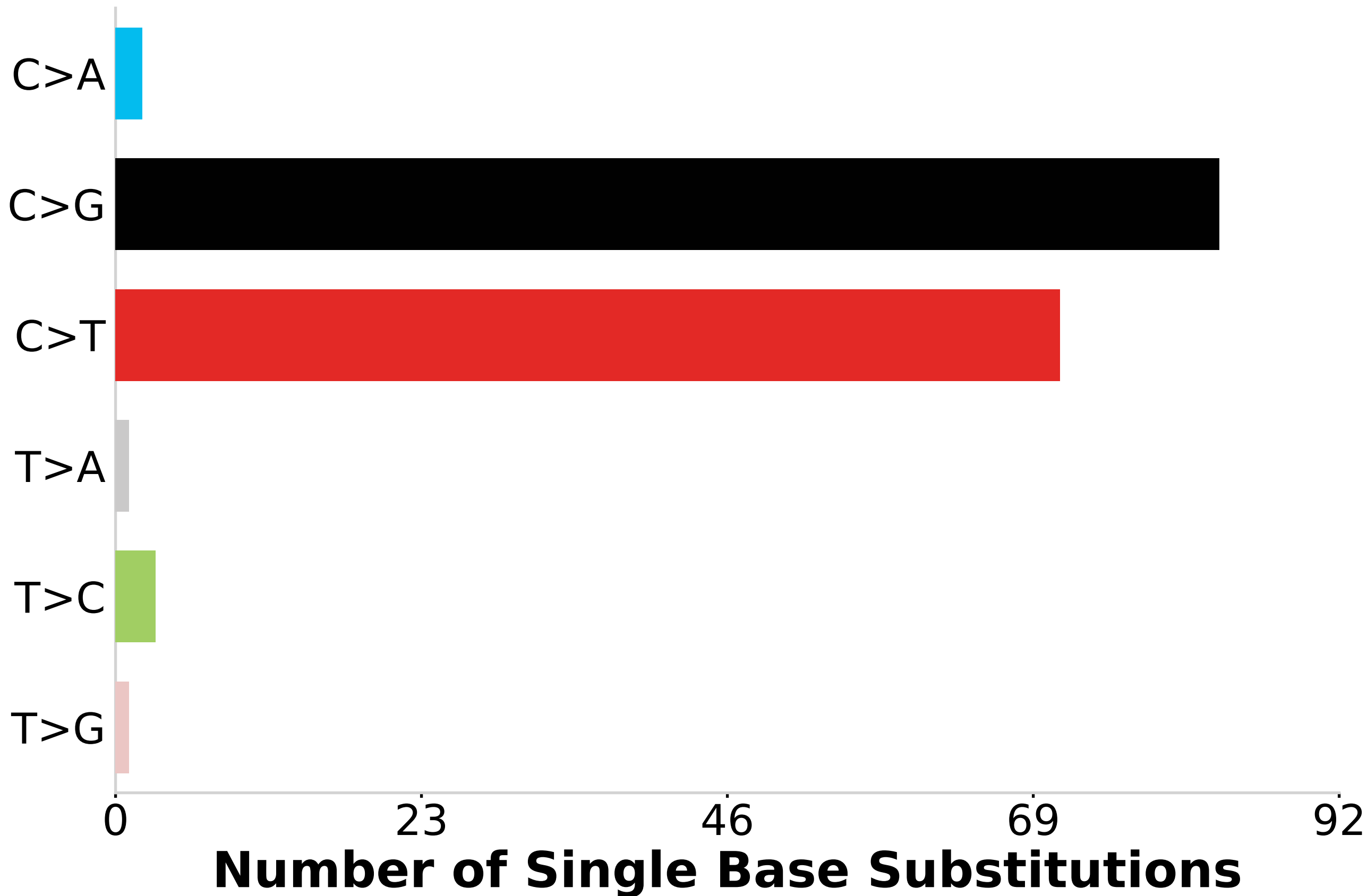
TCGA-BL-A5ZZ-01A-31D-A30E-08: 55 subs



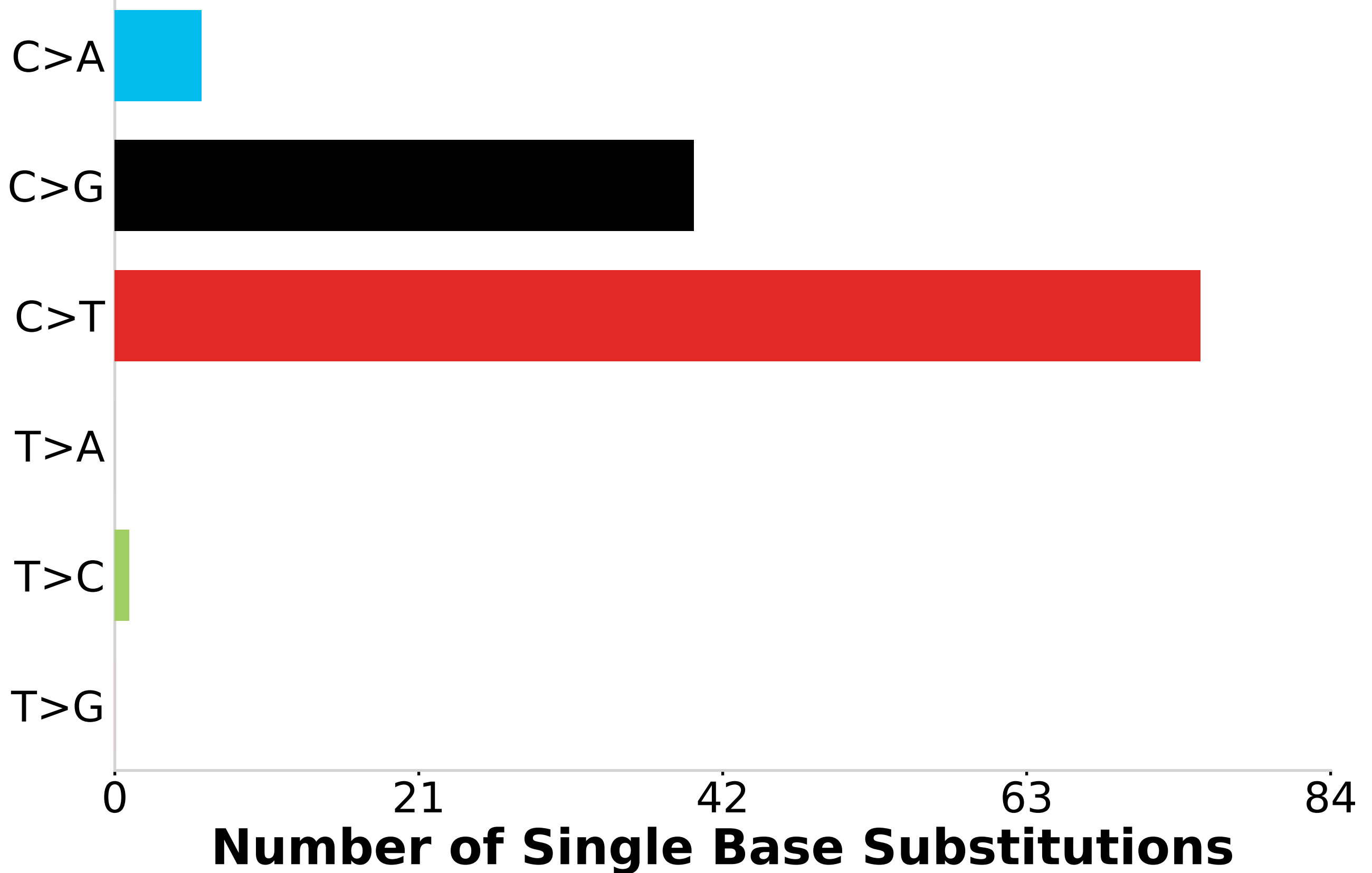
TCGA-BT-A0S7-01A-11D-A10S-08: 6 subs



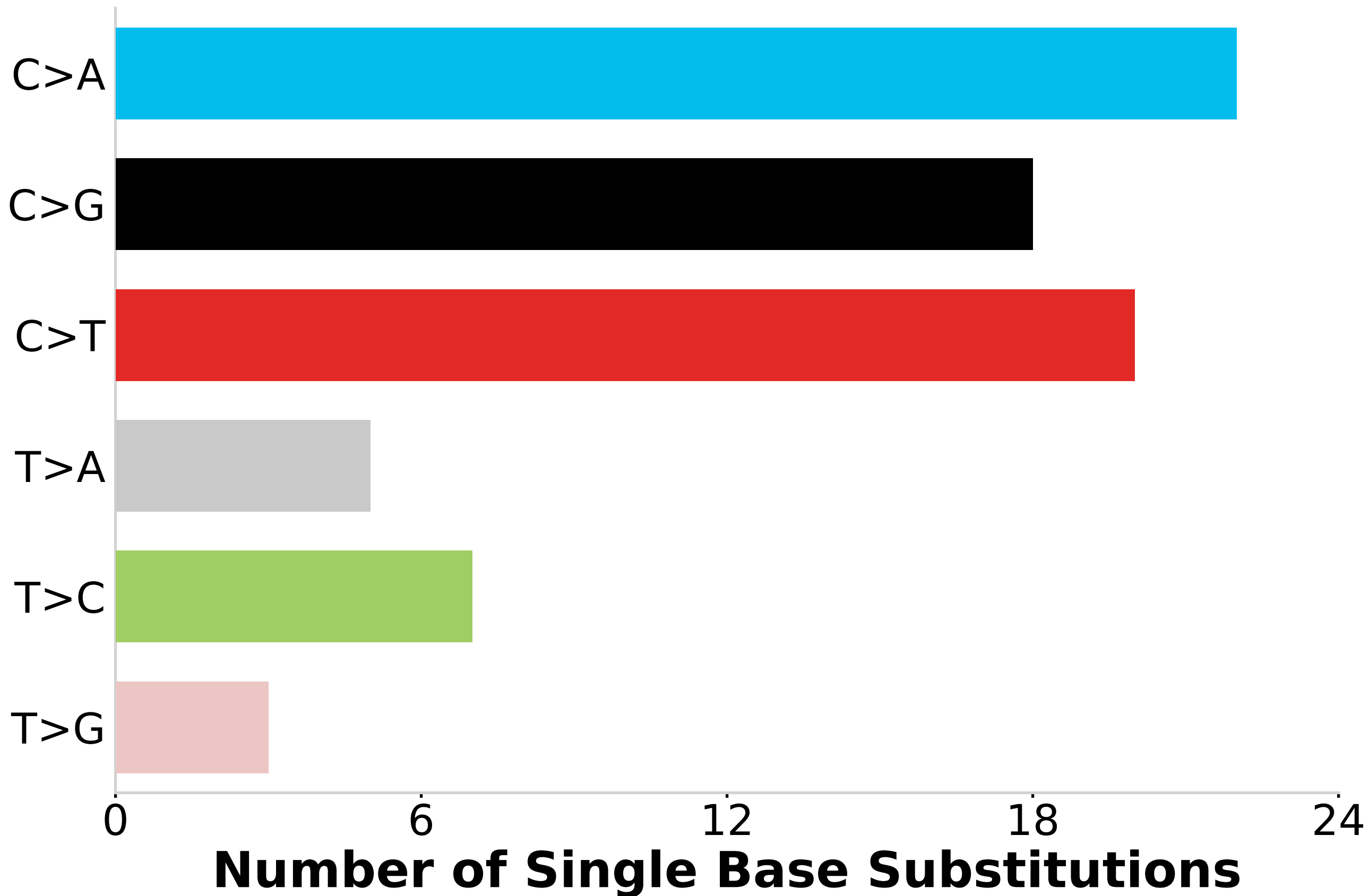
TCGA-BT-A0YX-01A-11D-A10S-08: 161 sub



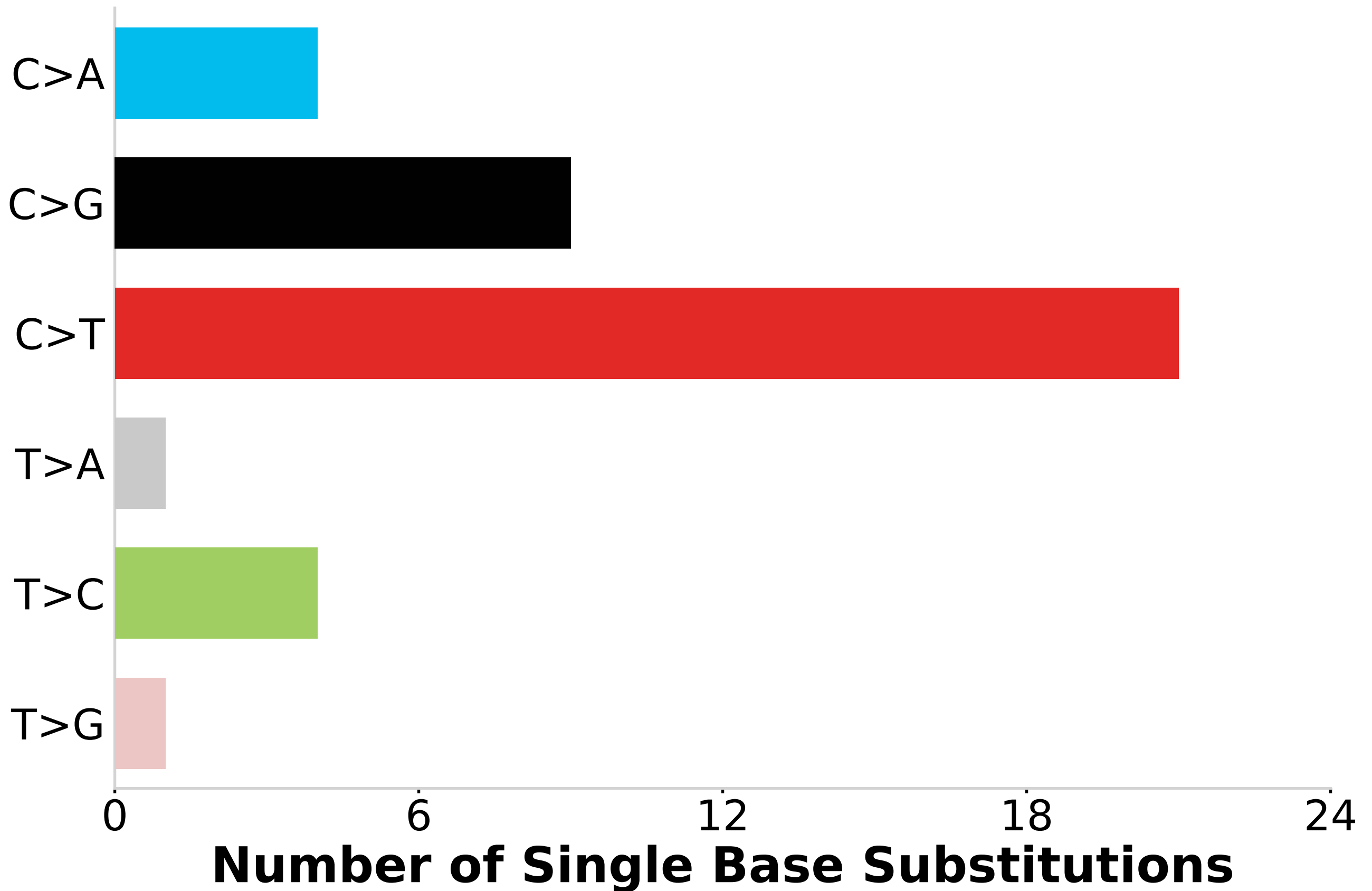
TCGA-BT-A20J-01A-11D-A14W-08: 122 sub



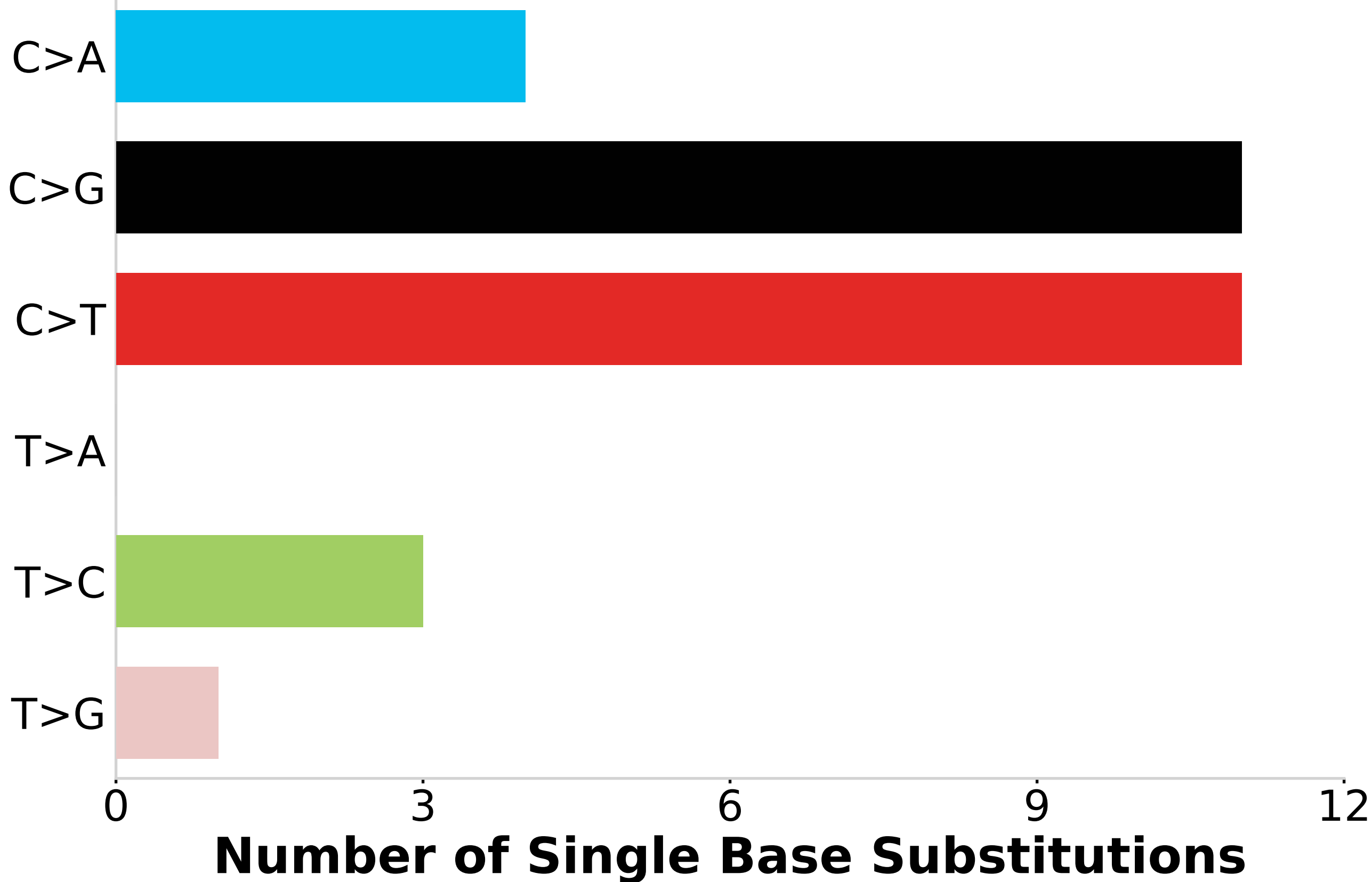
TCGA-BT-A20N-01A-11D-A14W-08: 75 subs



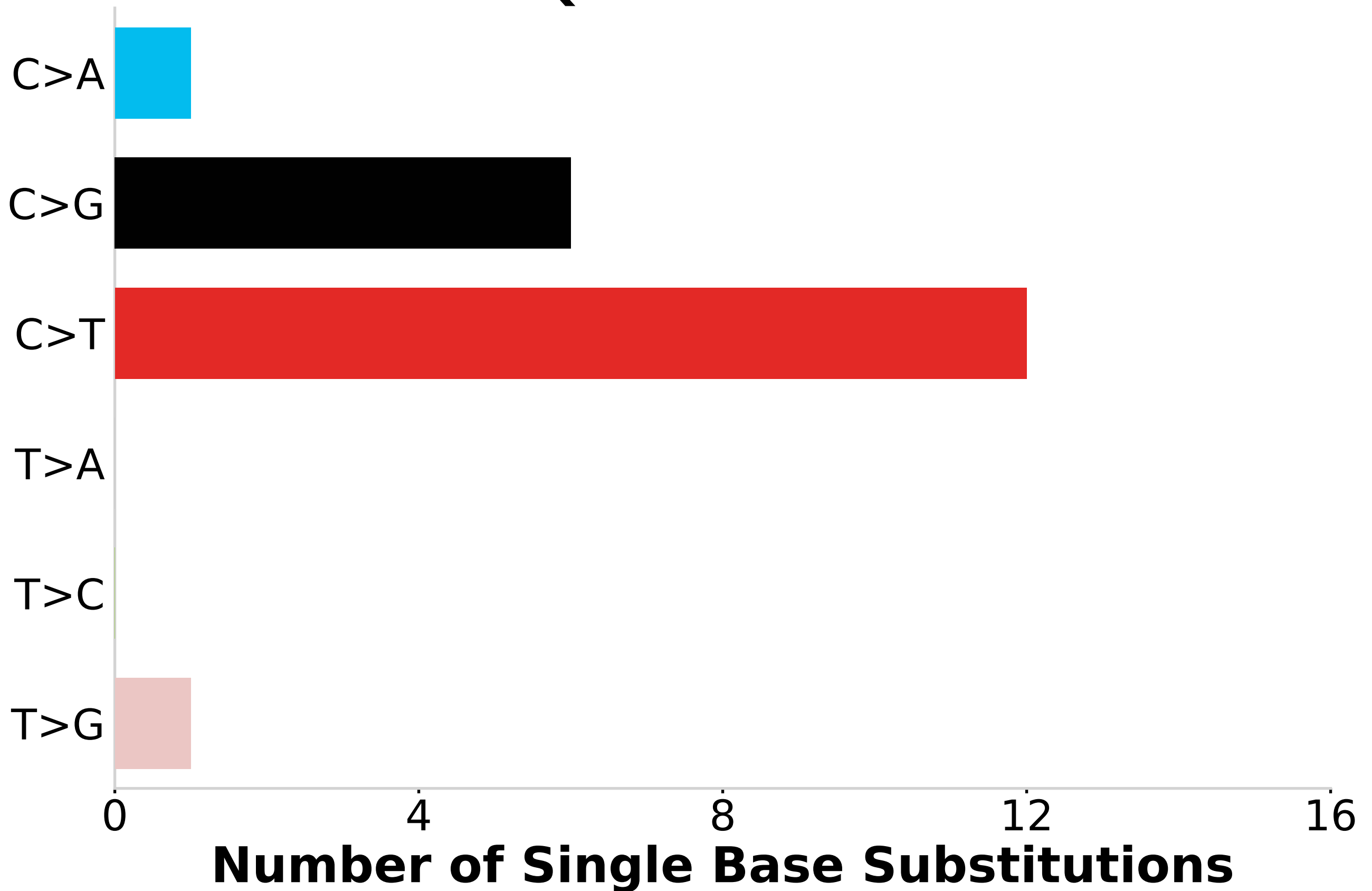
TCGA-BT-A200-01A-21D-A14W-08: 40 subs



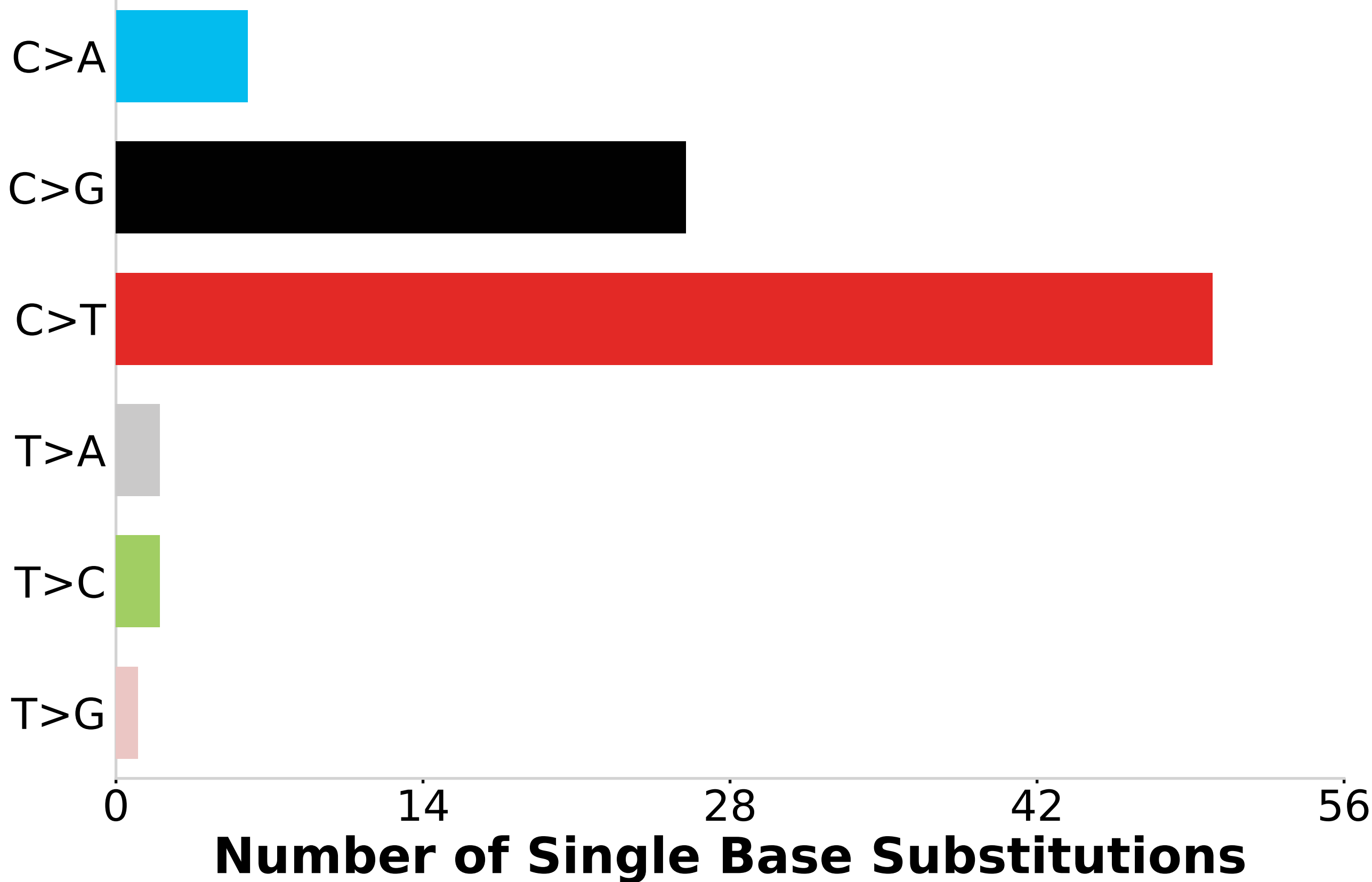
TCGA-BT-A20P-01A-11D-A14W-08: 30 subs



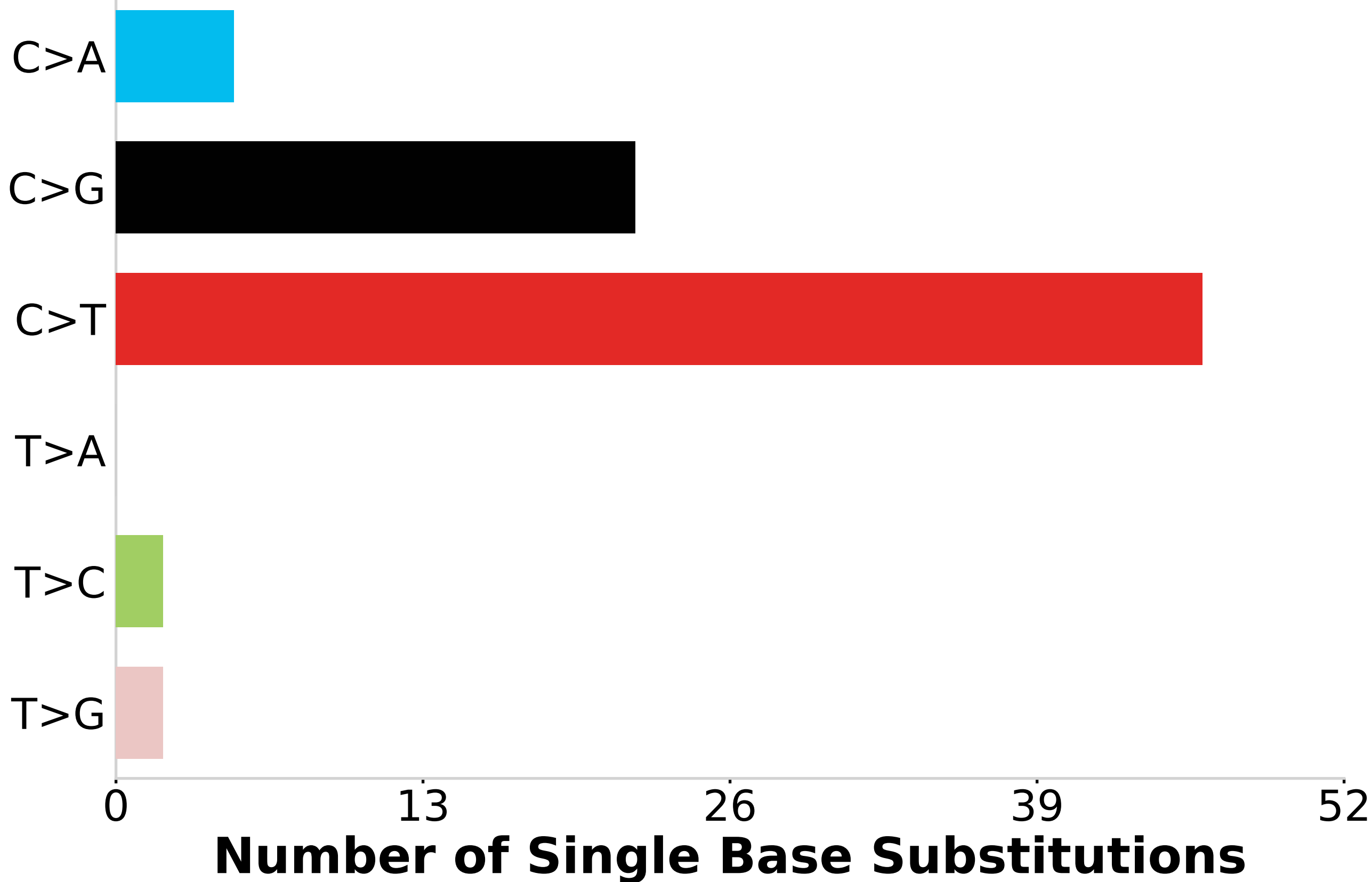
TCGA-BT-A20Q-01A-11D-A14W-08: 20 subs



TCGA-BT-A20R-01A-12D-A16O-08: 87 subs



TCGA-BT-A20T-01A-11D-A14W-08: 77 subs



TCGA-BT-A20U-01A-11D-A14W-08: 14 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

2

4

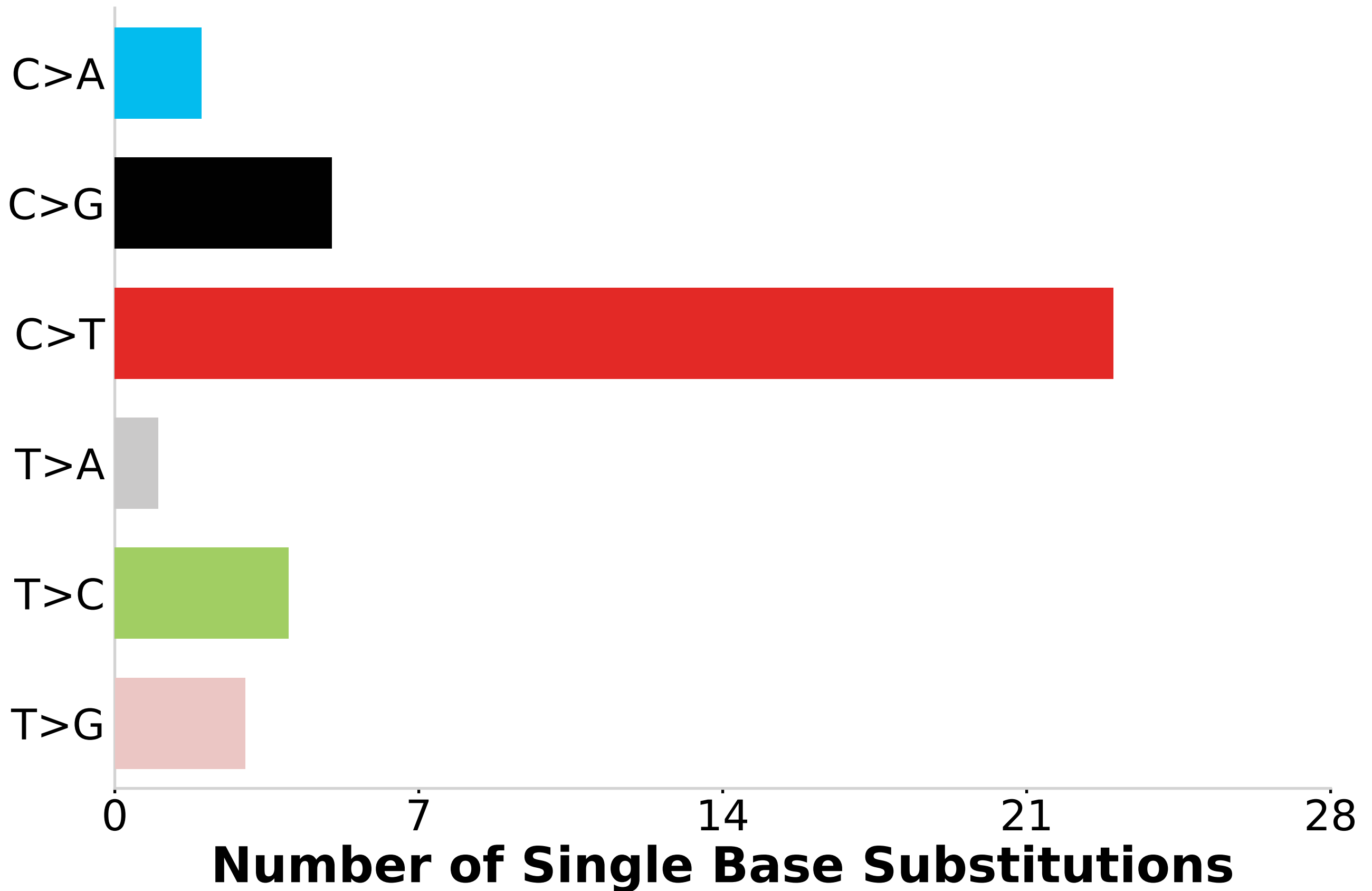
6

8

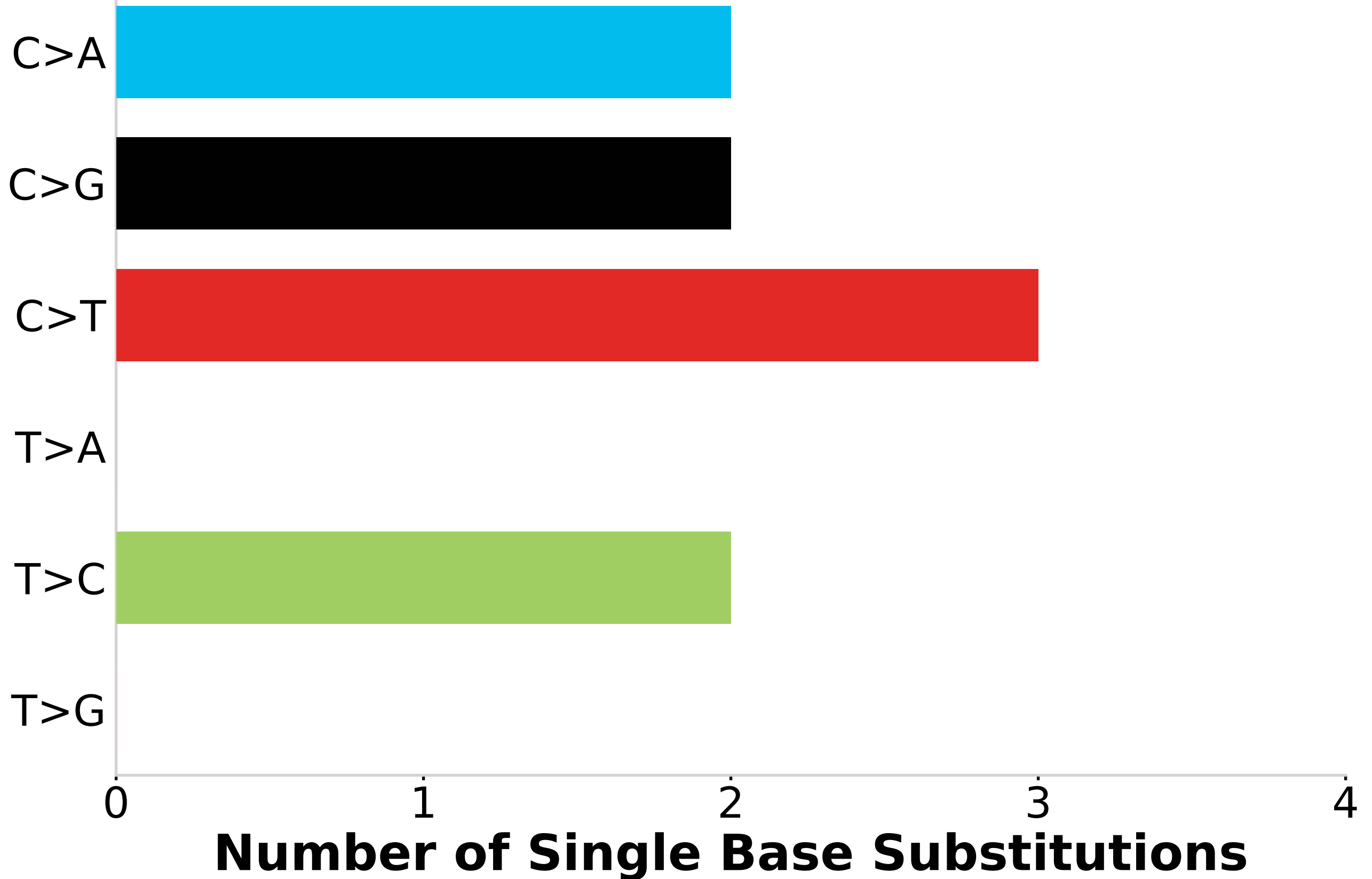
Number of Single Base Substitutions



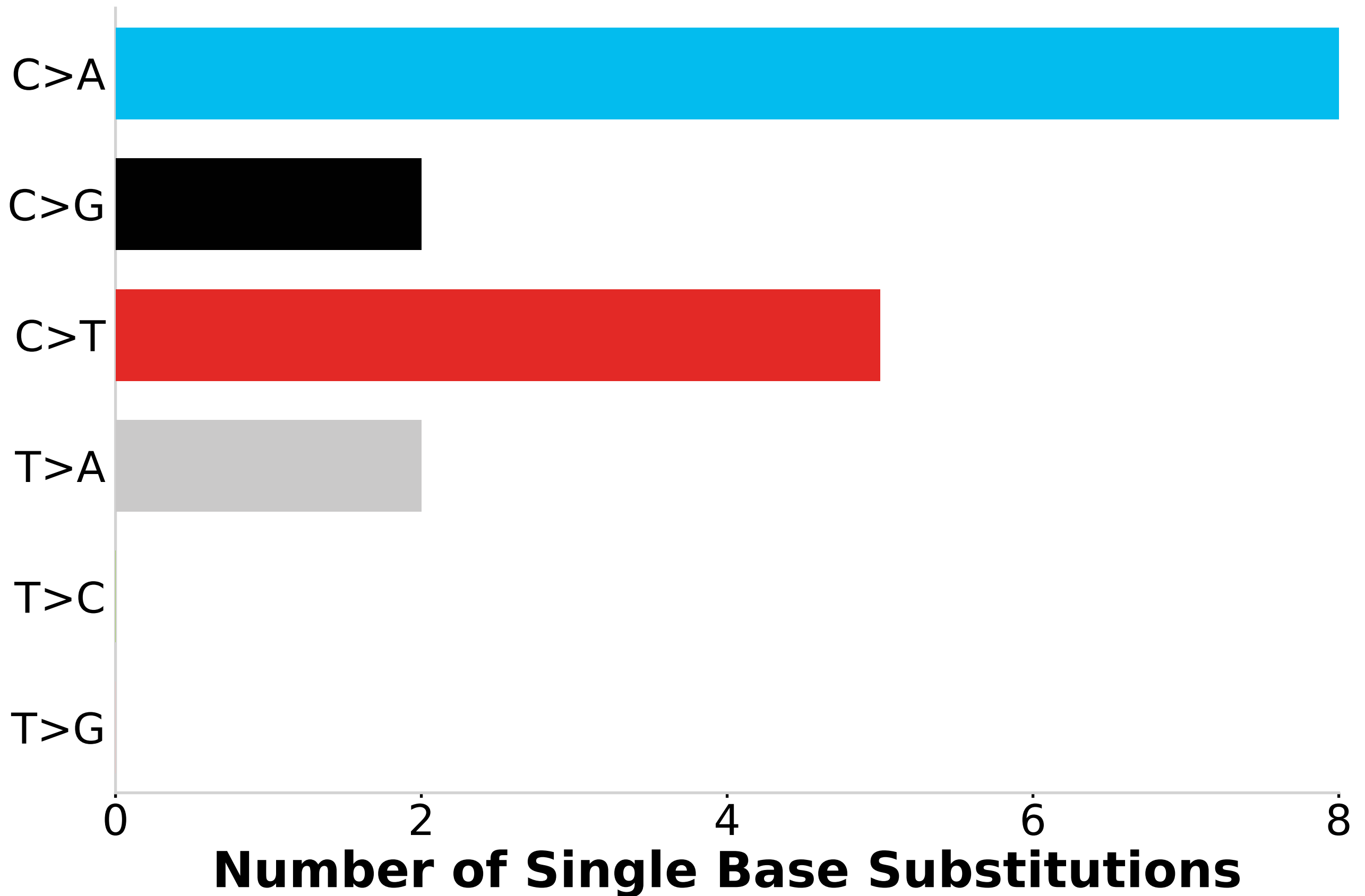
TCGA-BT-A20V-01A-11D-A14W-08: 38 subs



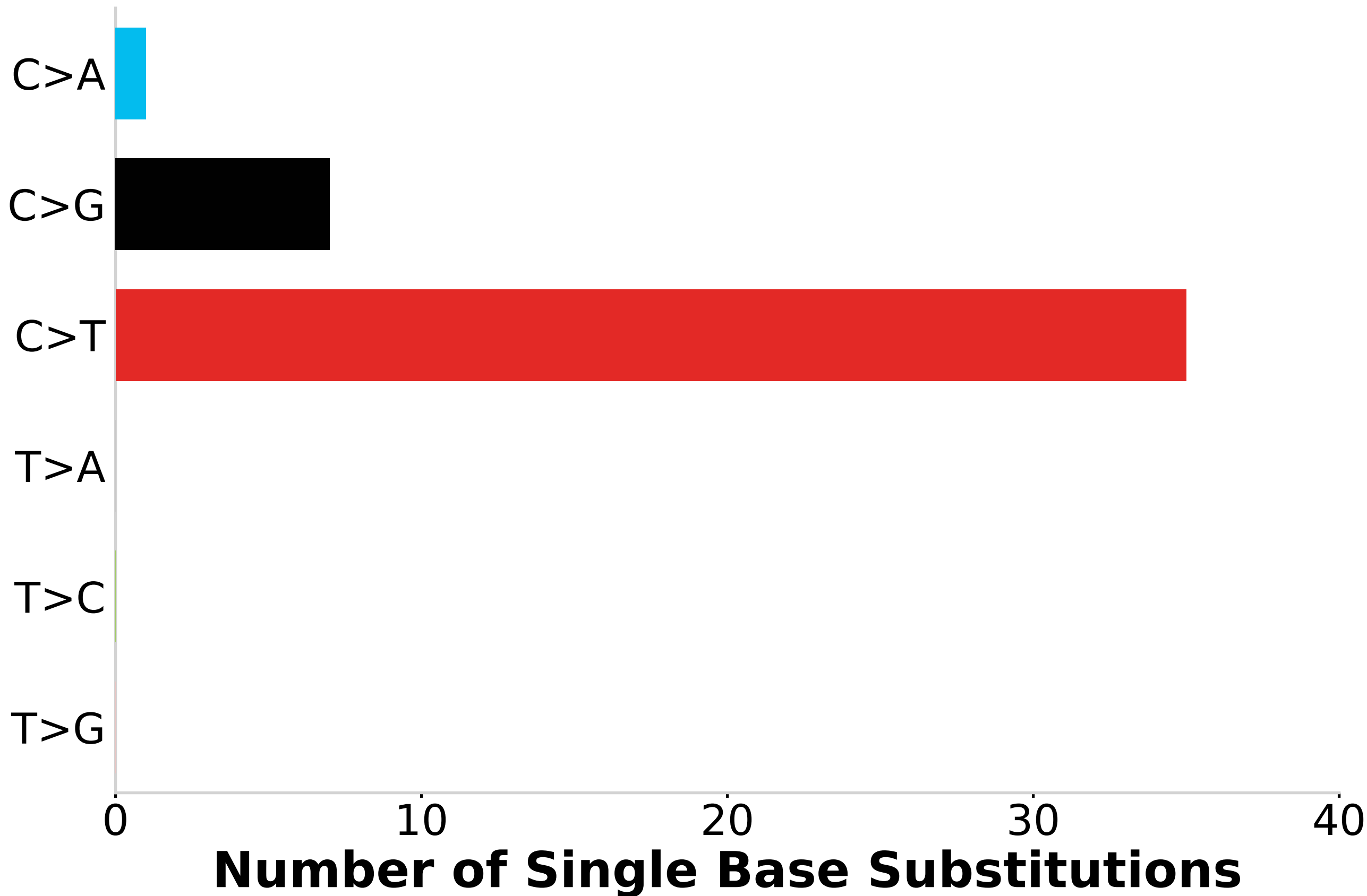
TCGA-BT-A20W-01A-21D-A14W-08: 9 subs



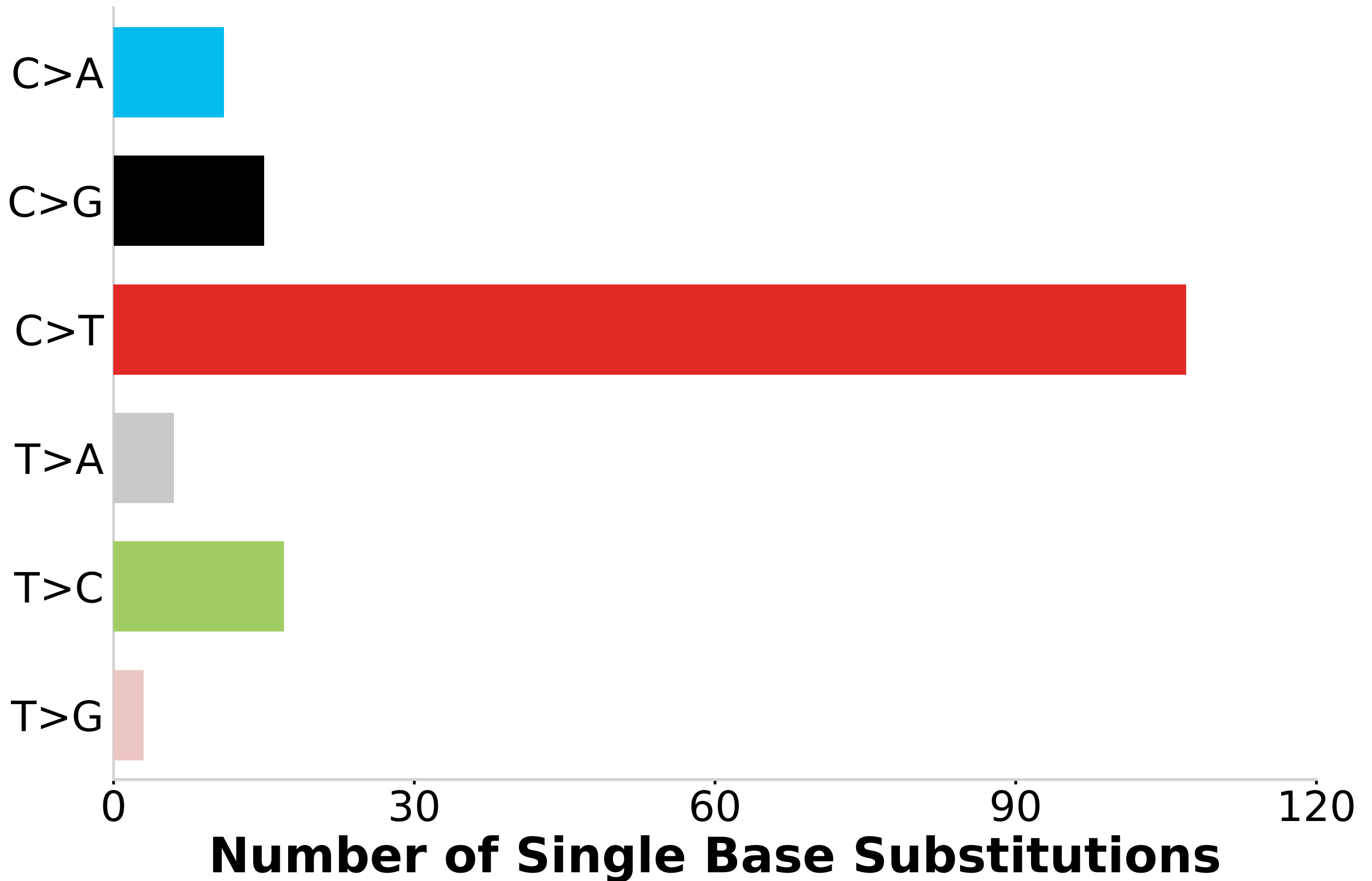
TCGA-BT-A20X-01A-11D-A16O-08: 17 subs



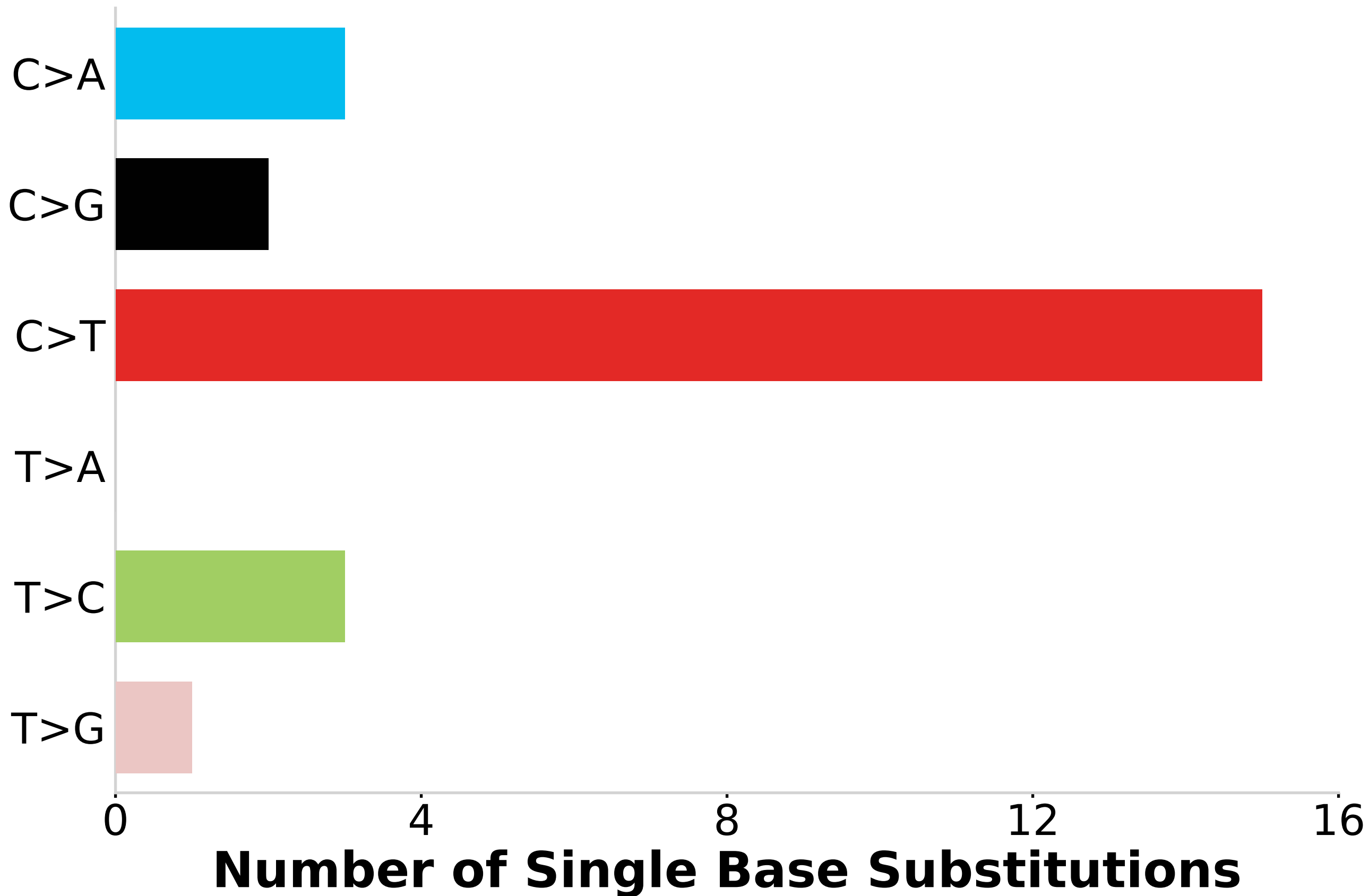
TCGA-BT-A2LA-01A-11D-A18F-08: 43 subs



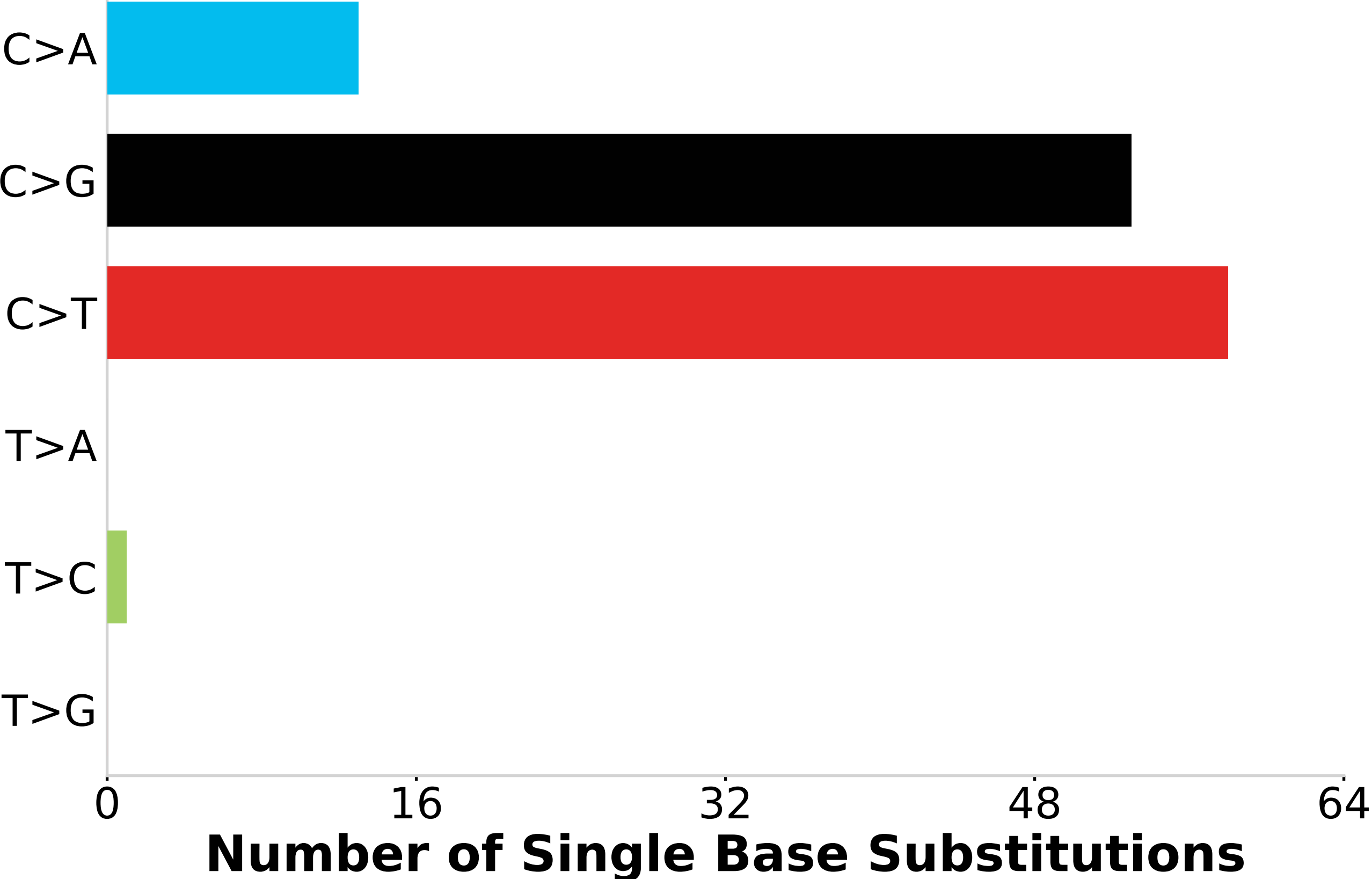
TCGA-BT-A2LB-01A-11D-A18F-08: 159 subs



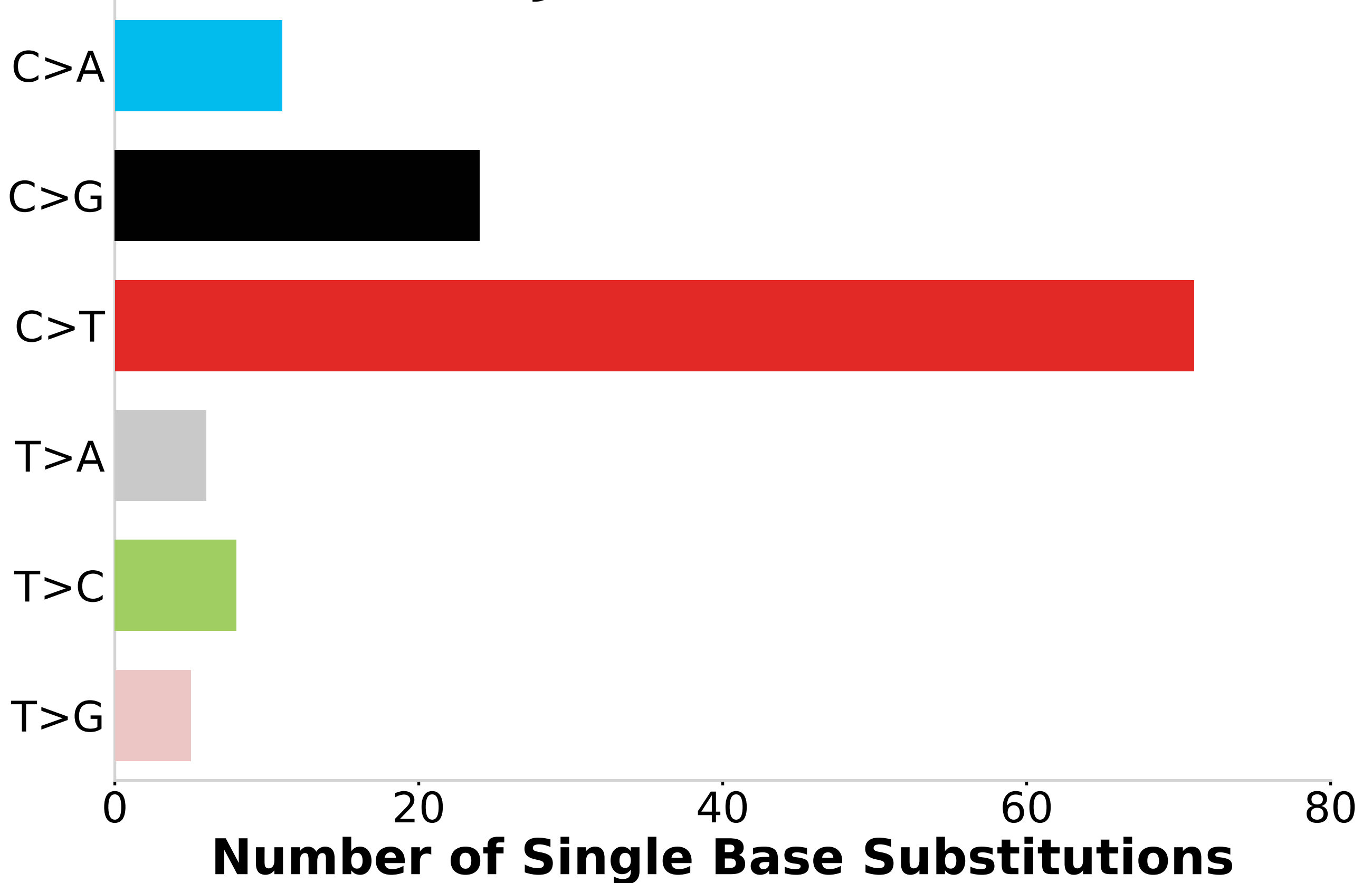
TCGA-BT-A2LD-01A-12D-A20D-08: 24 subs



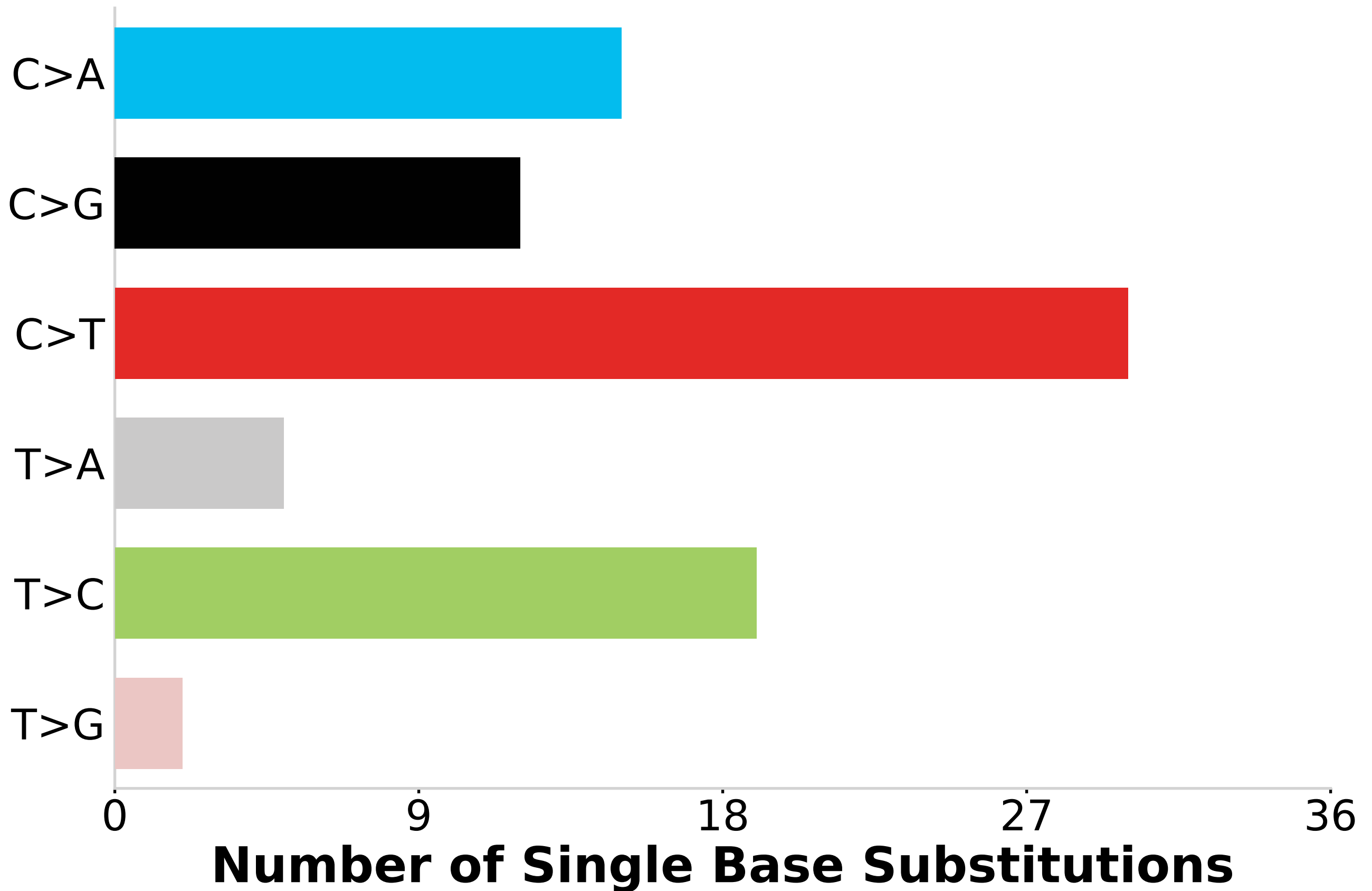
TCGA-BT-A3PH-01A-11D-A21Z-08: 125 sub



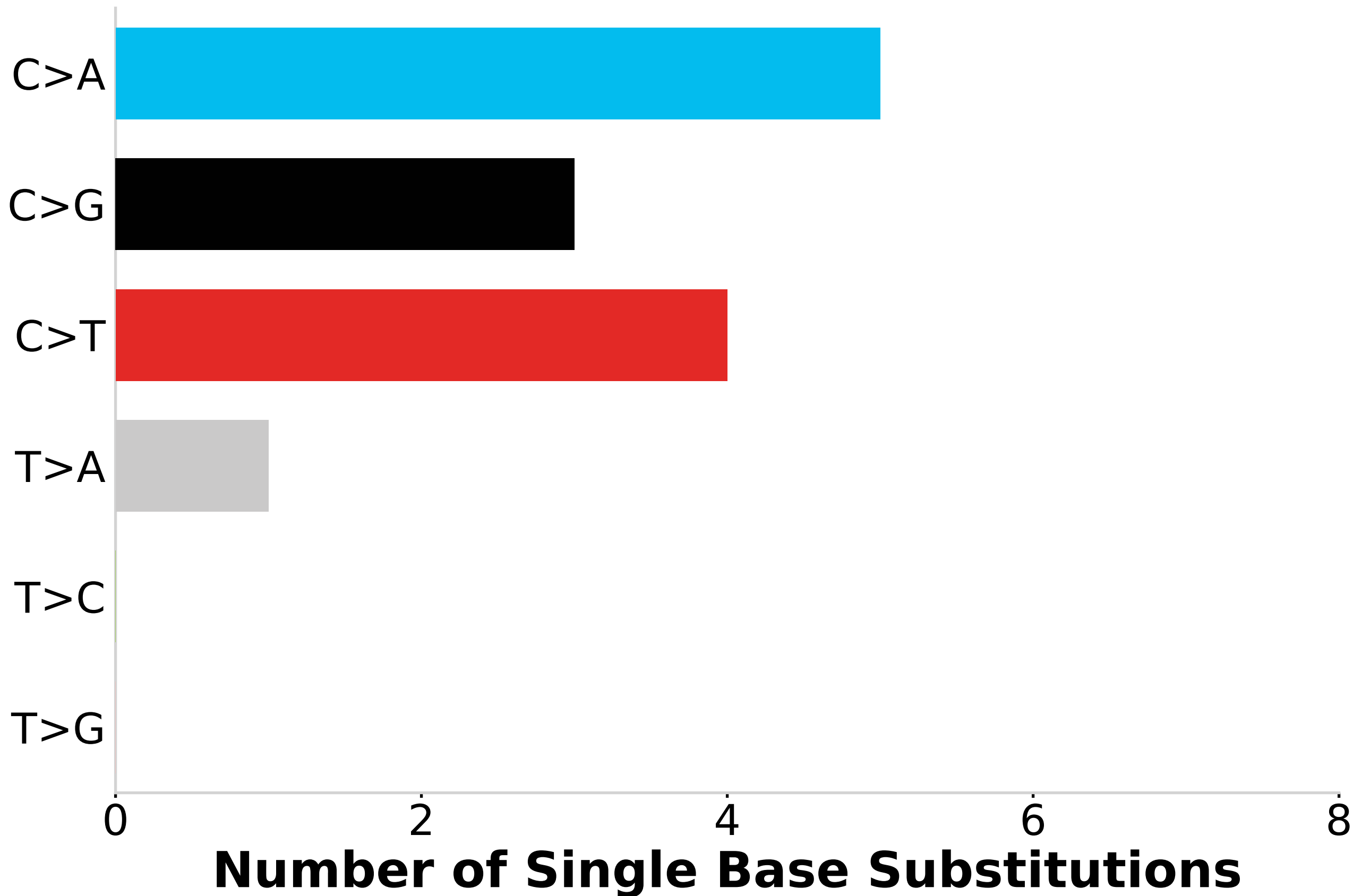
TCGA-BT-A3PJ-01A-21D-A21Z-08: 125 subs



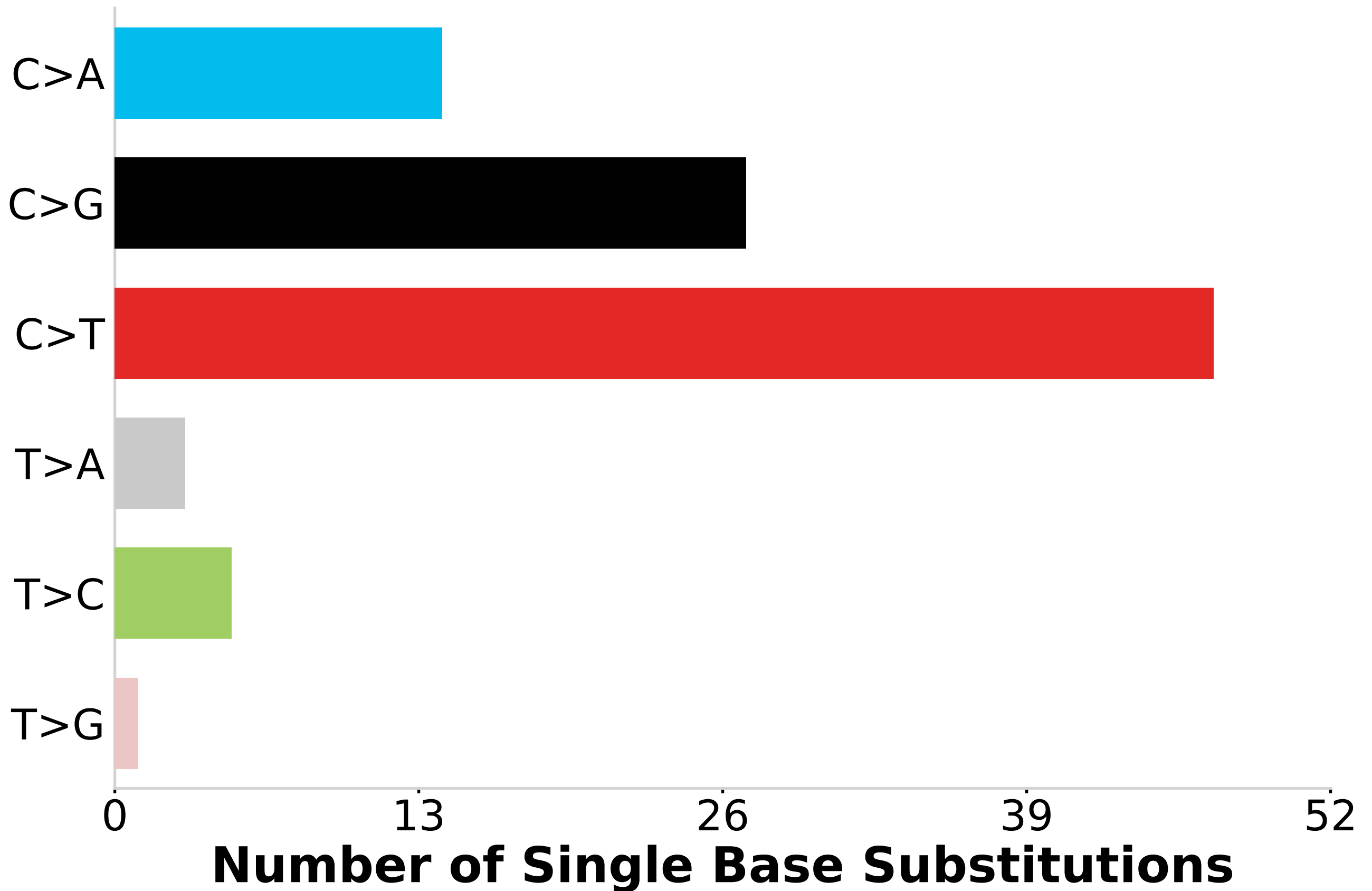
TCGA-BT-A3PK-01A-21D-A21Z-08: 83 subs



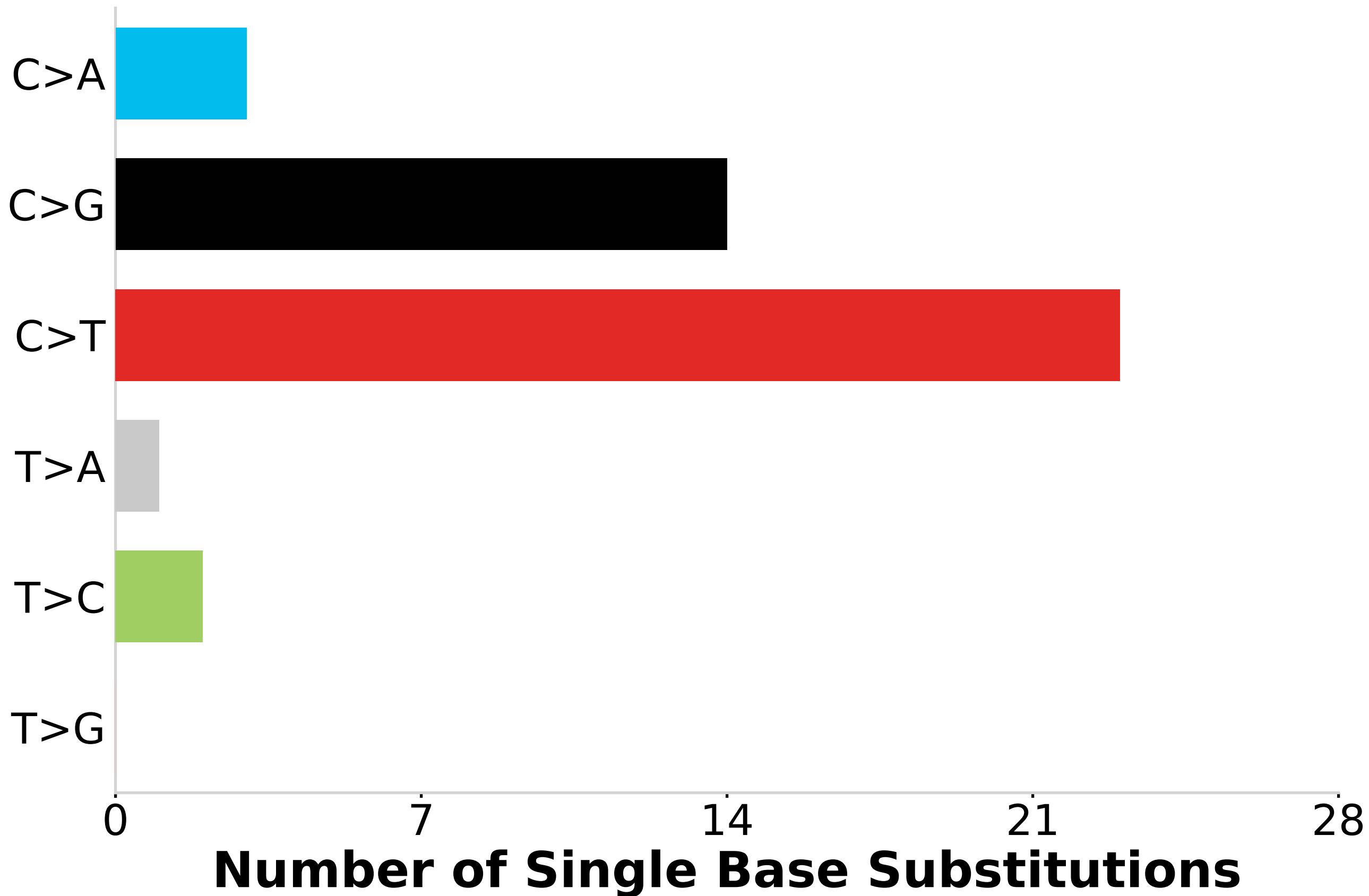
TCGA-BT-A42B-01A-32D-A23M-08: 13 subs



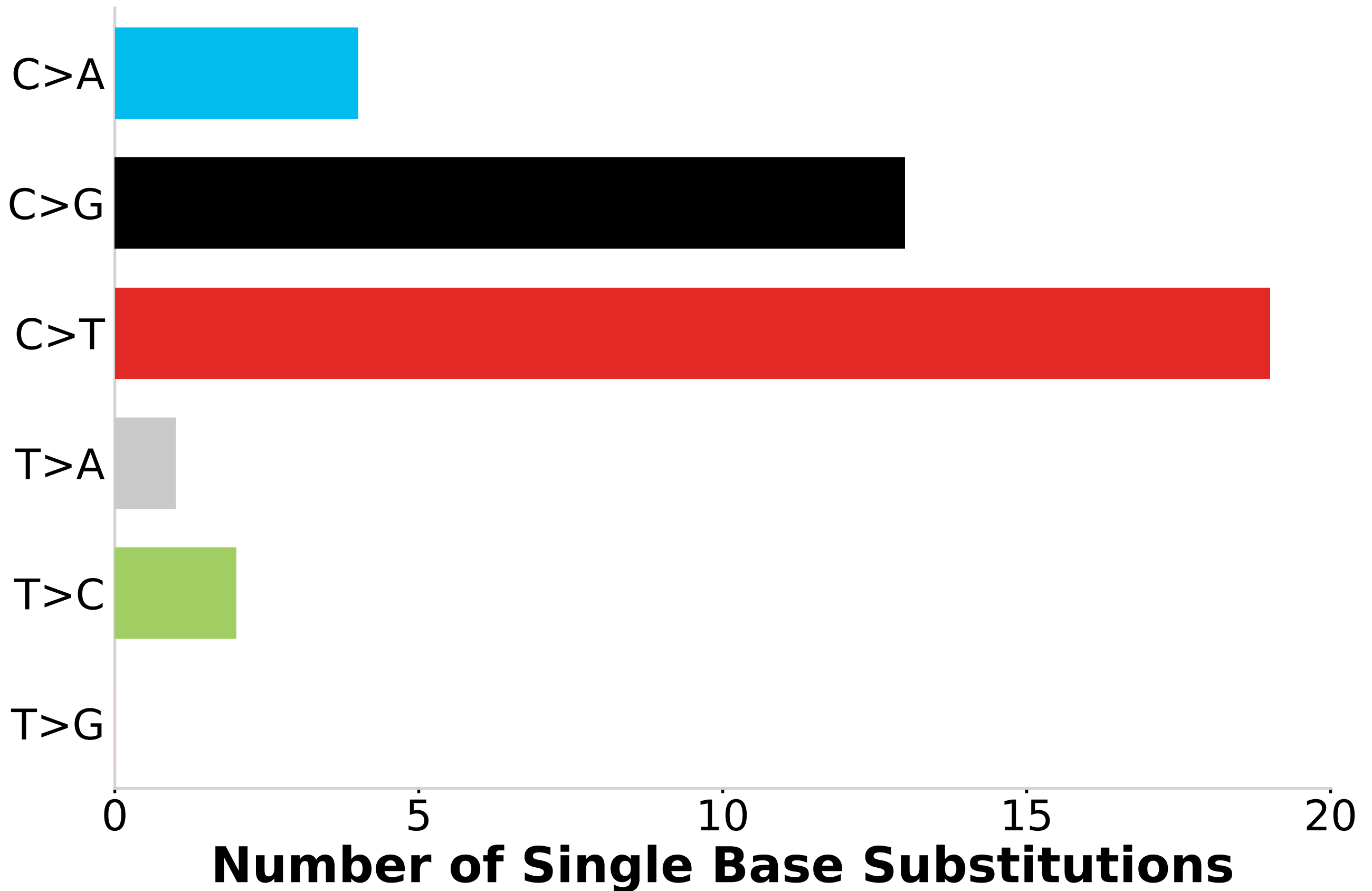
TCGA-BT-A42C-01A-11D-A23M-08: 97 subs



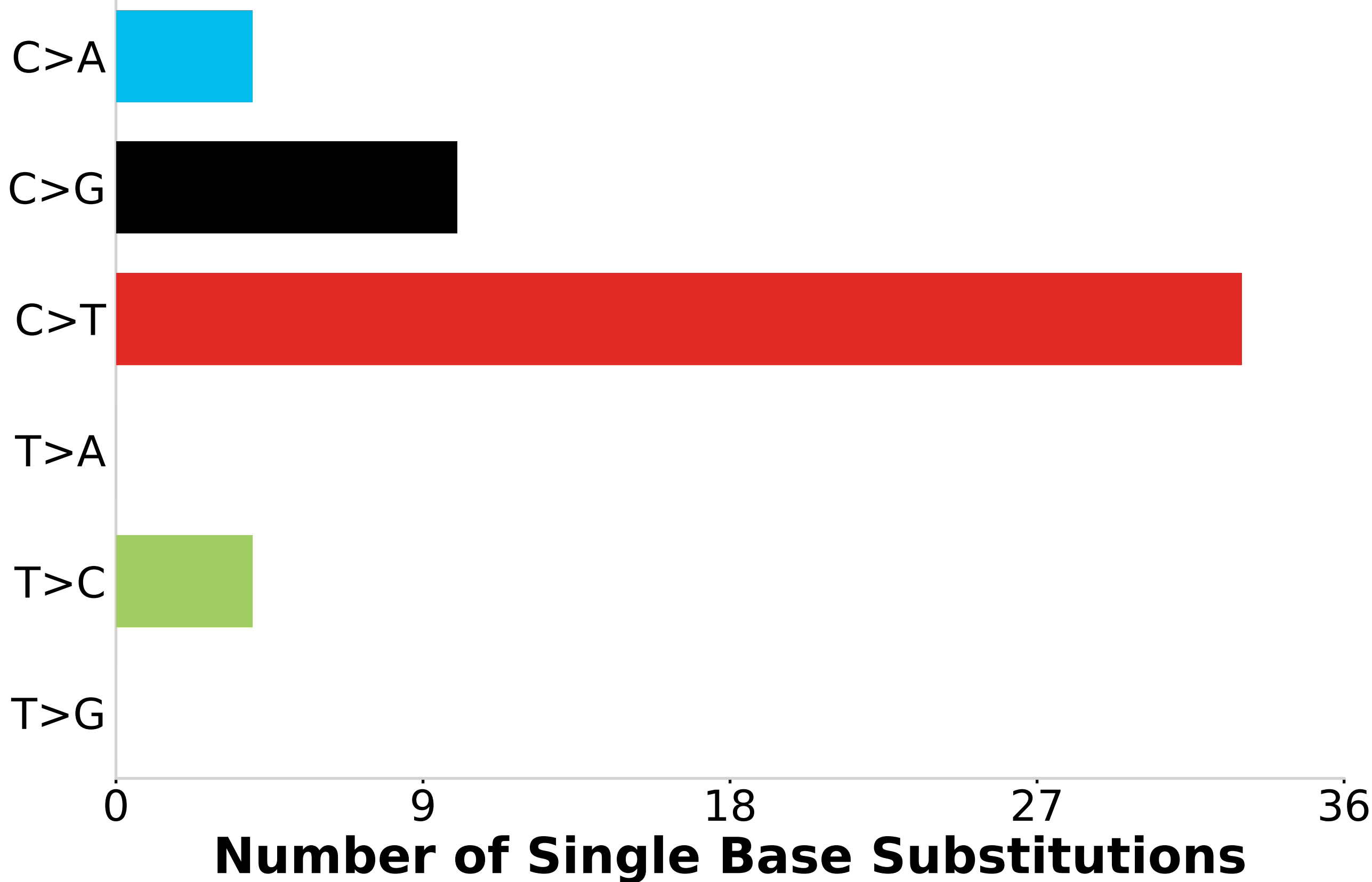
TCGA-BT-A42E-01A-11D-A23U-08: 43 subs



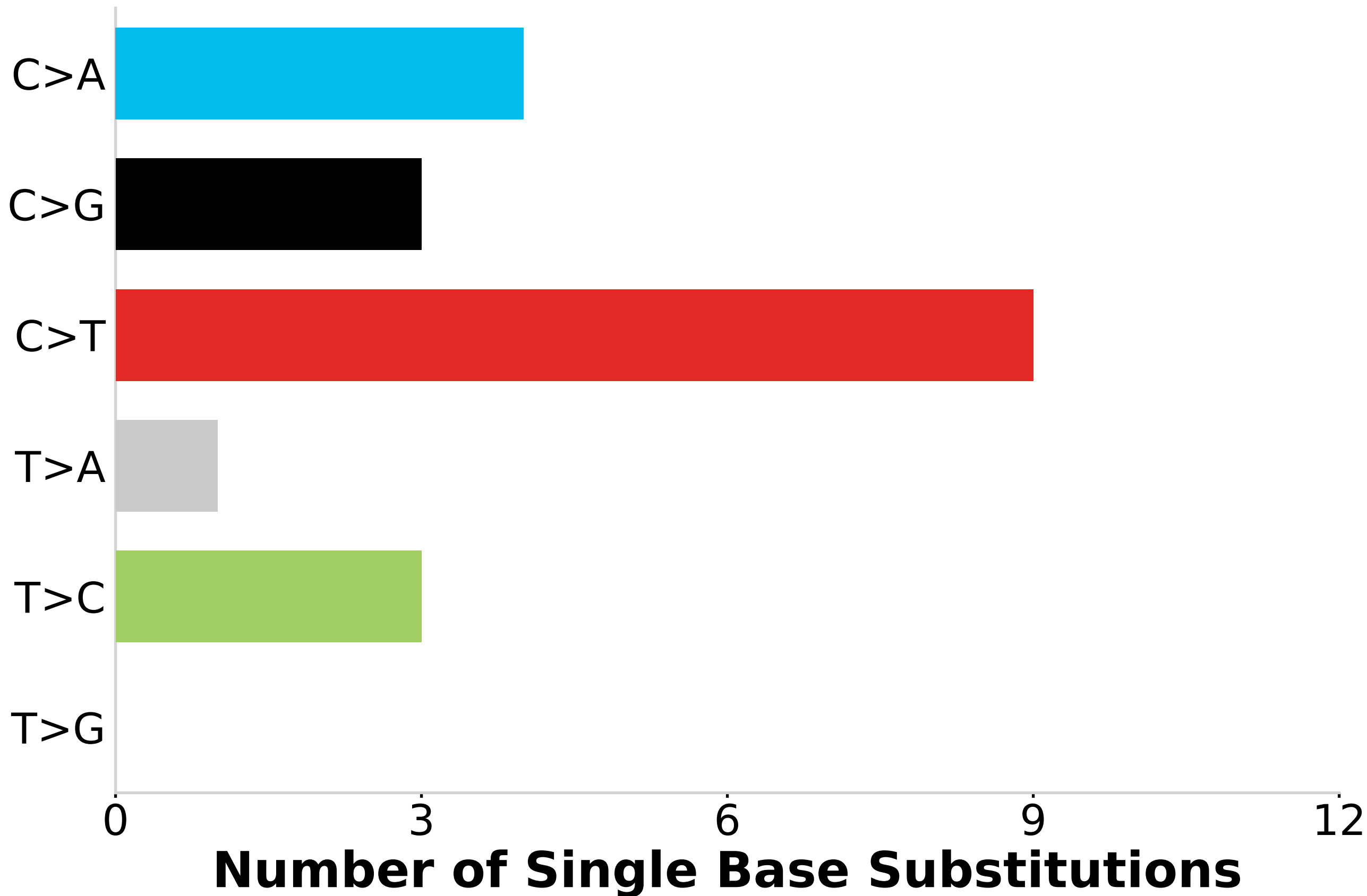
TCGA-BT-A42F-01A-11D-A23U-08: 39 subs



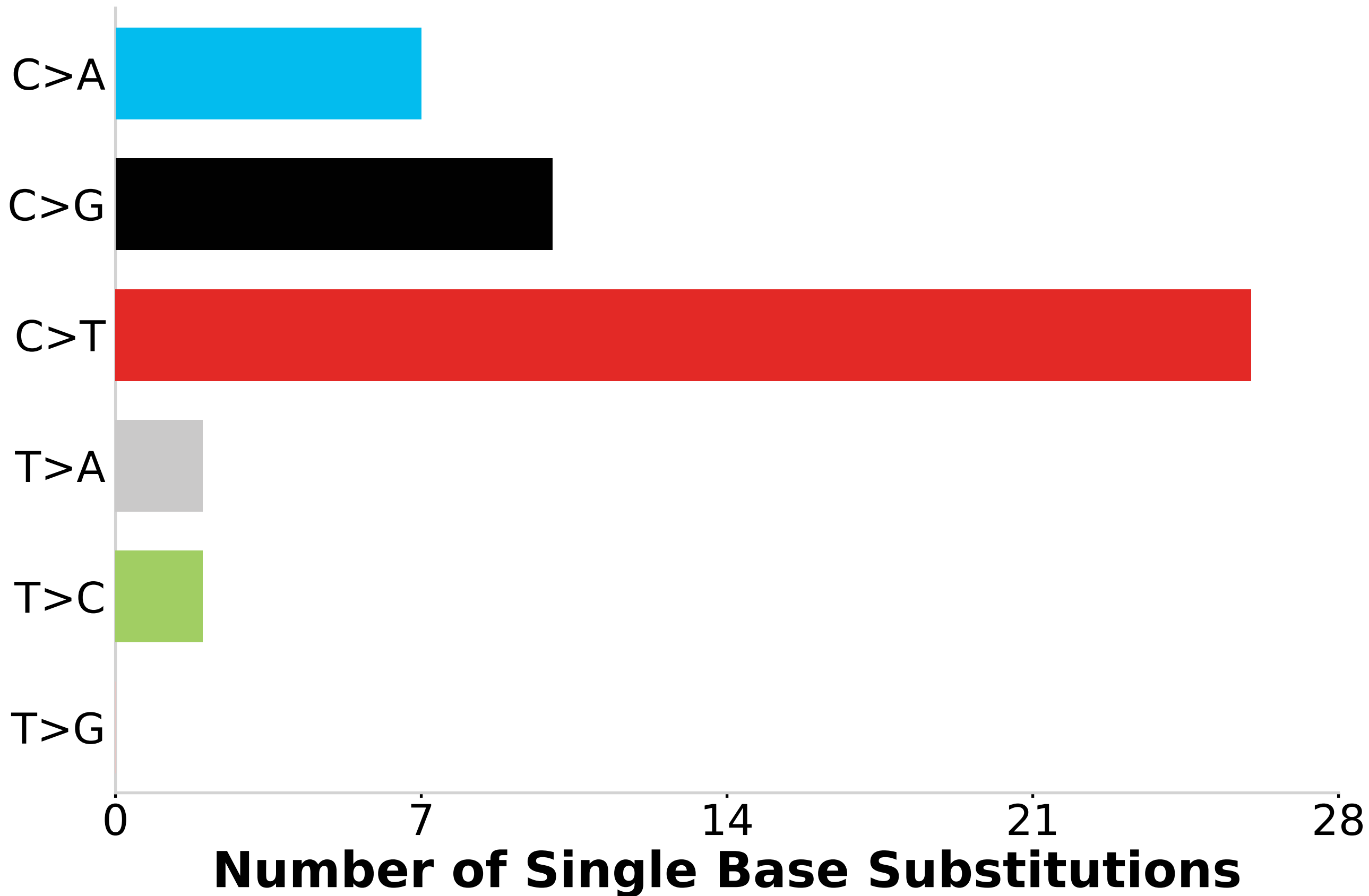
TCGA-C4-A0EZ-01A-21D-A10S-08: 51 subs



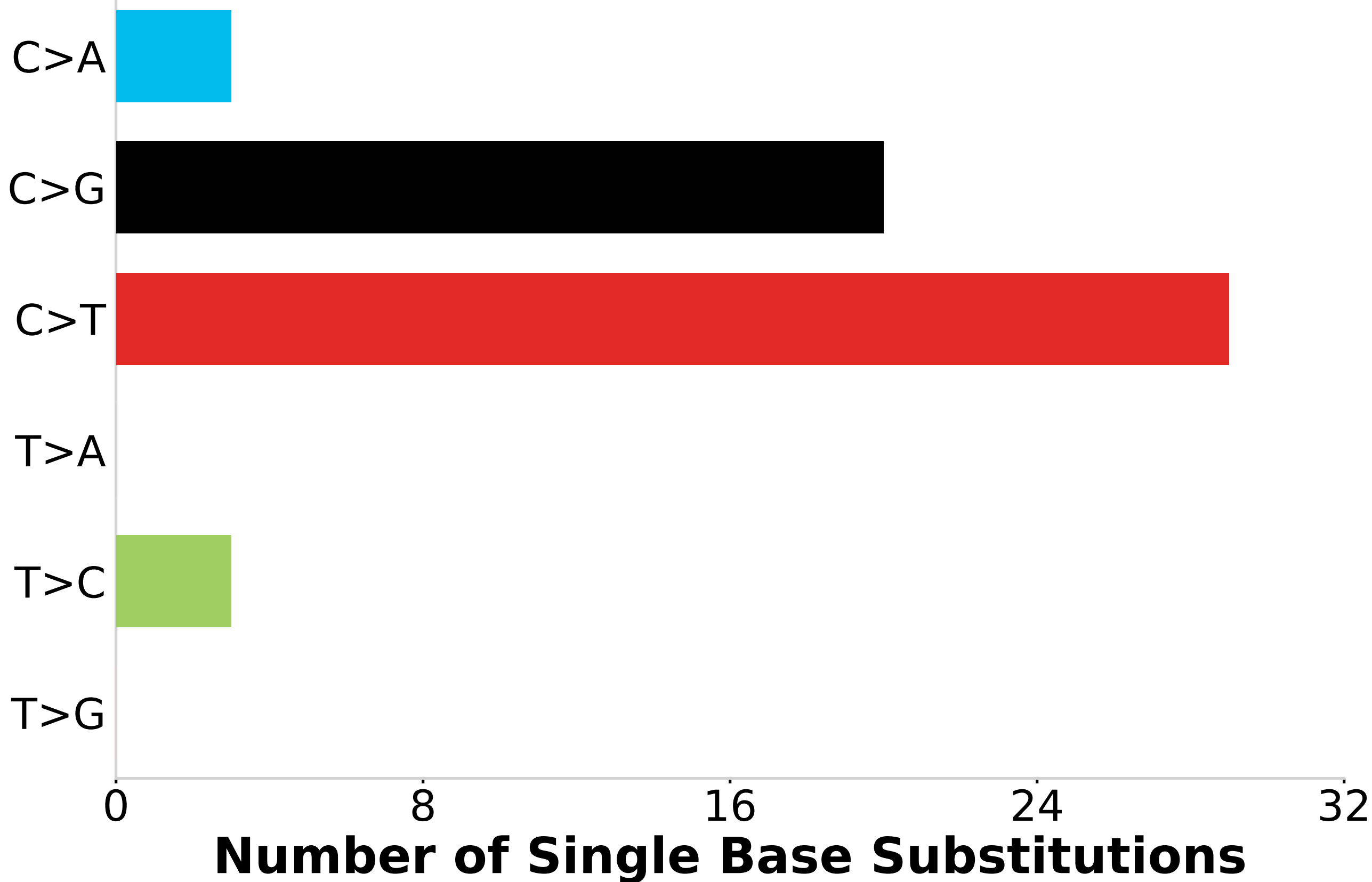
TCGA-C4-A0F0-01A-12D-A10S-08: 20 subs



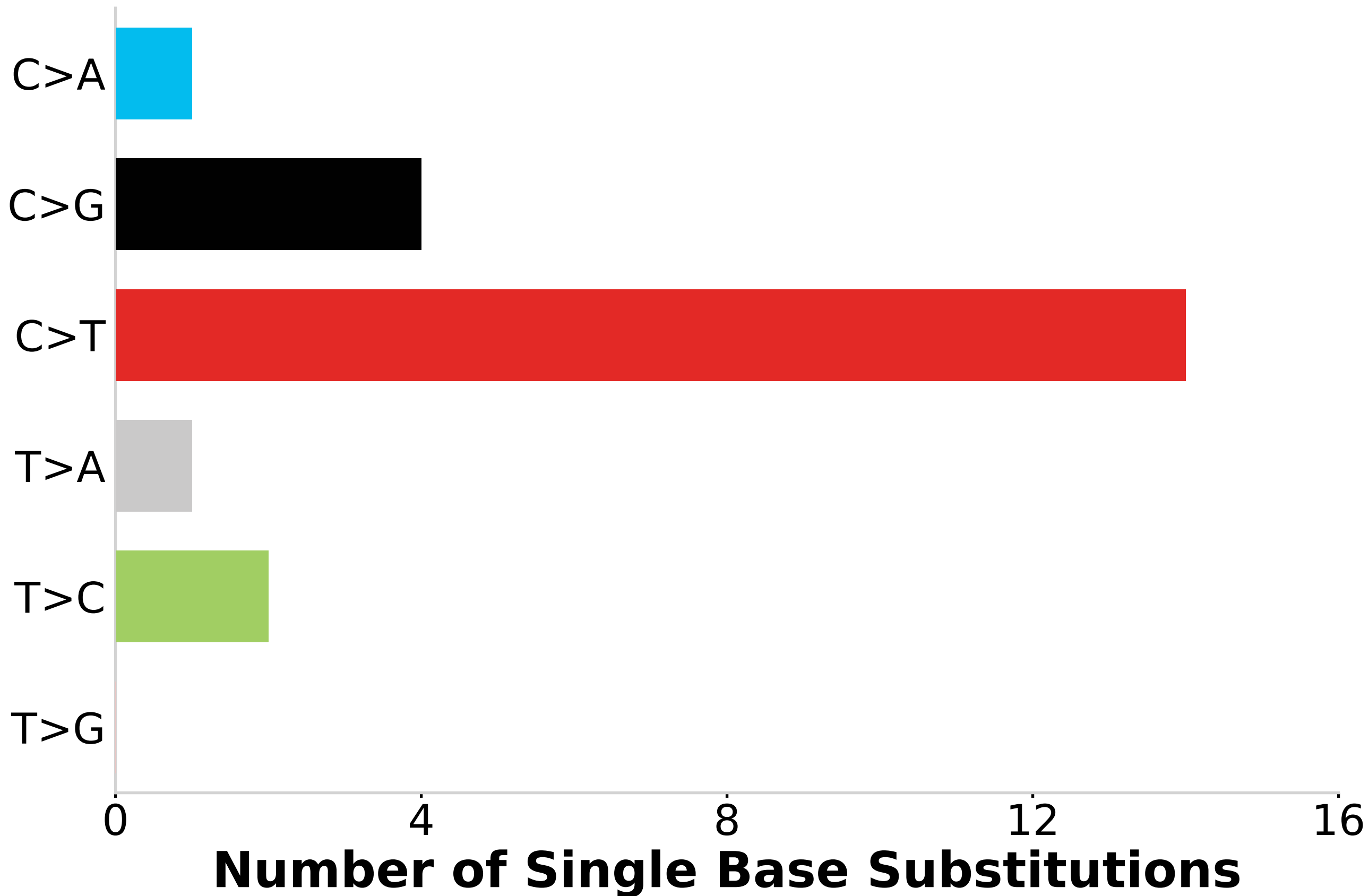
TCGA-C4-A0F1-01A-11D-A10S-08: 47 subs



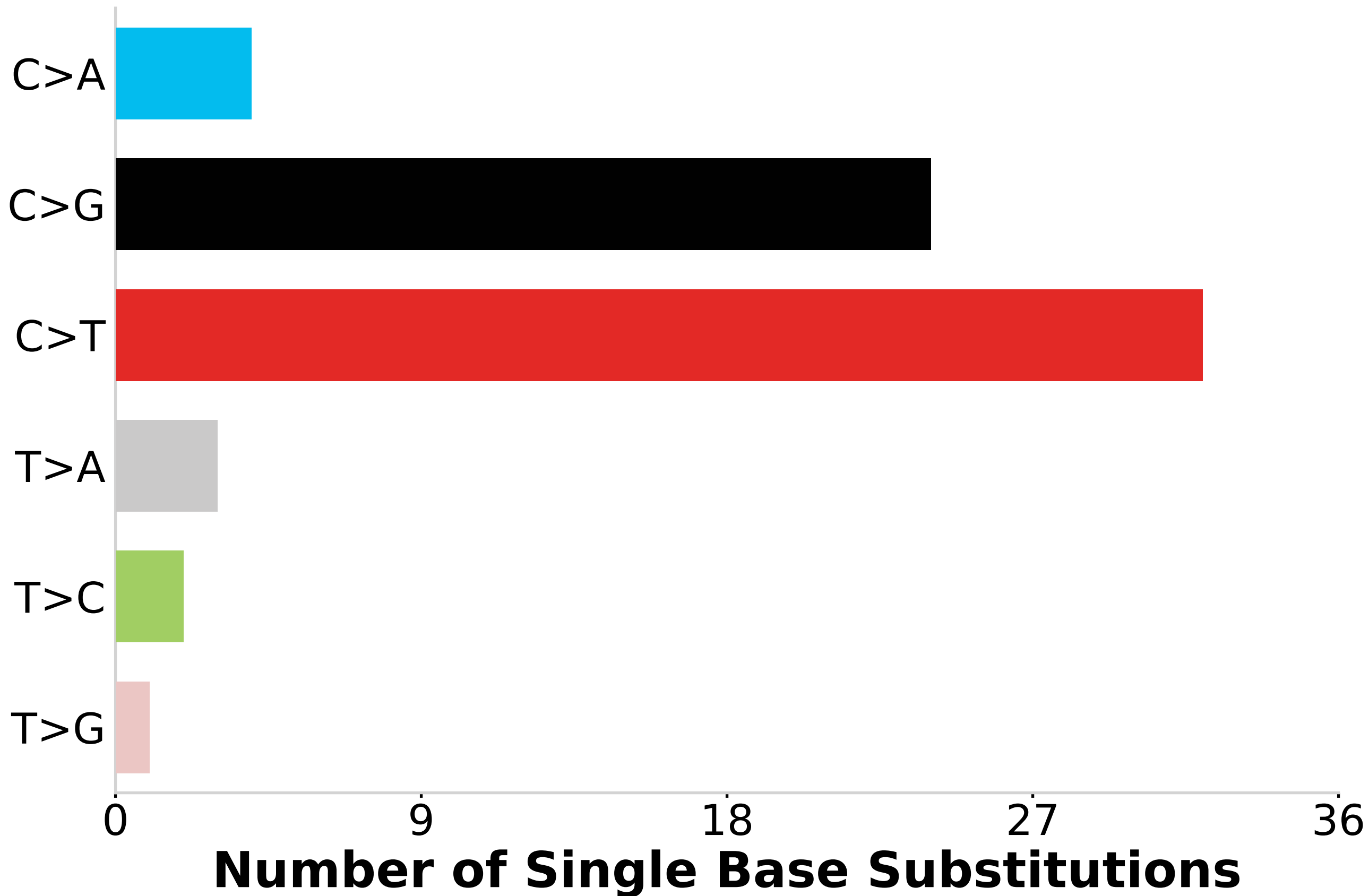
TCGA-C4-A0F6-01A-11D-A10S-08: 55 subs



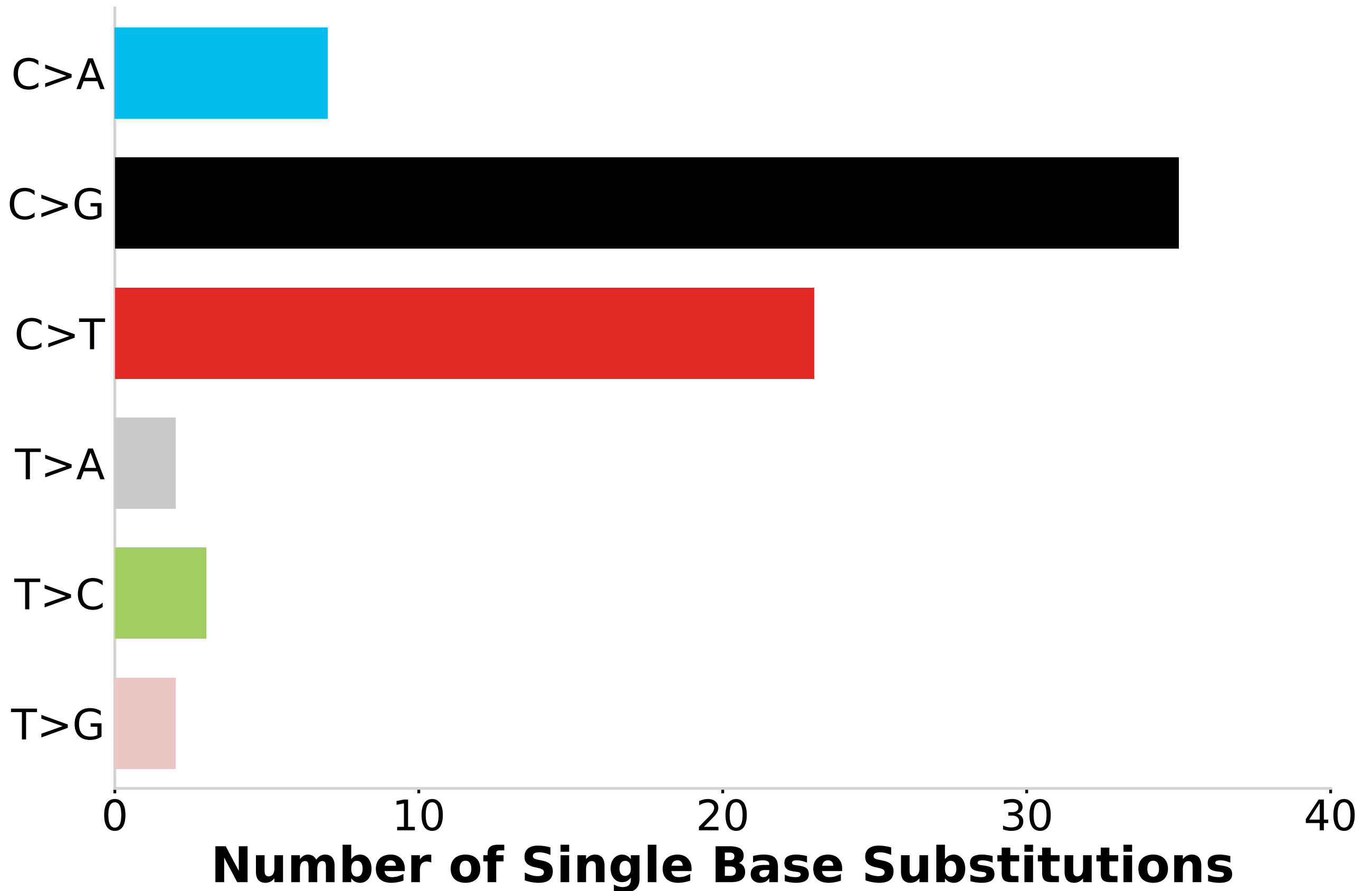
TCGA-C4-A0F7-01A-11D-A10S-08: 22 subs



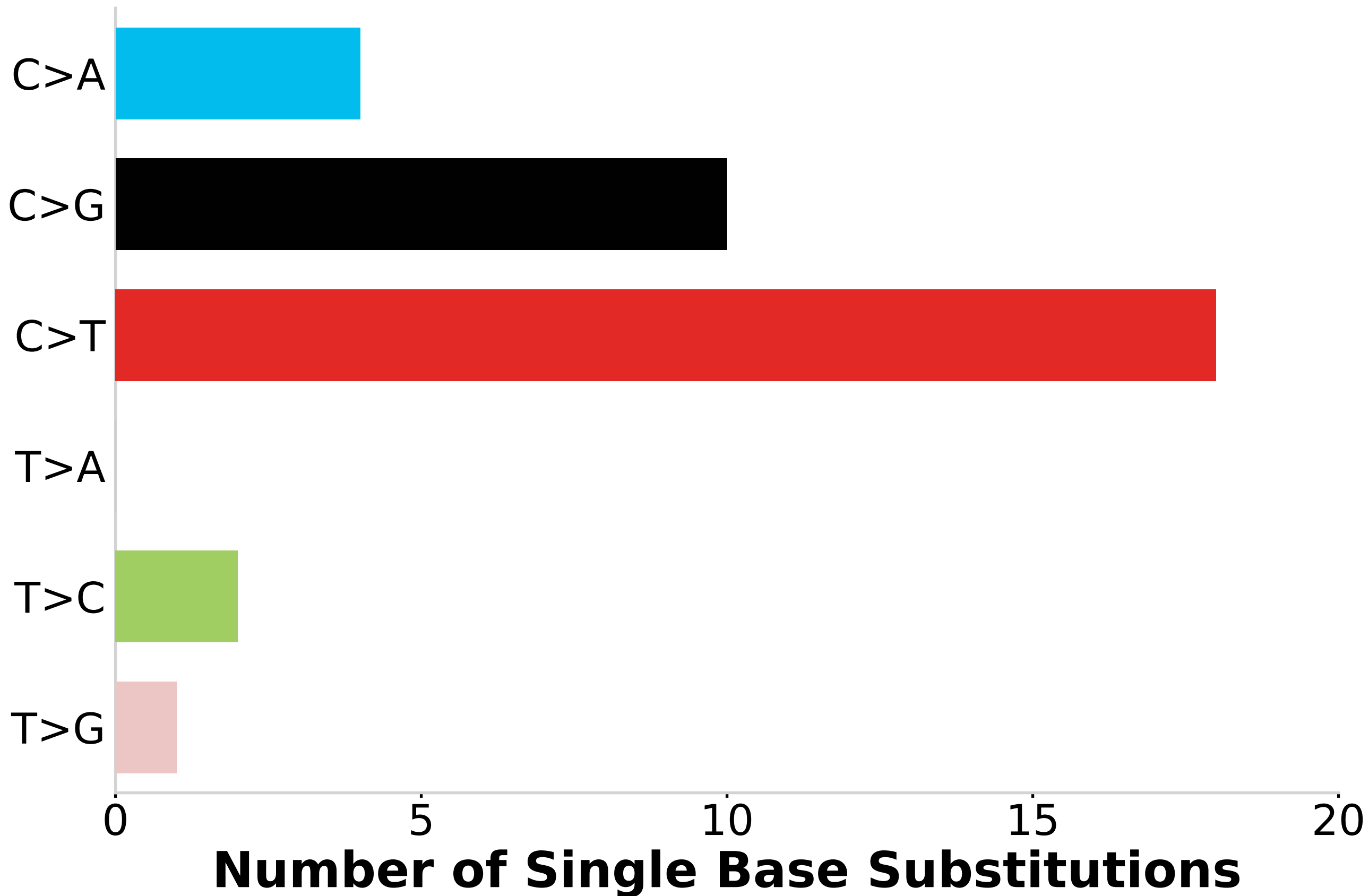
TCGA-CF-A1HR-01A-11D-A13W-08: 66 subs



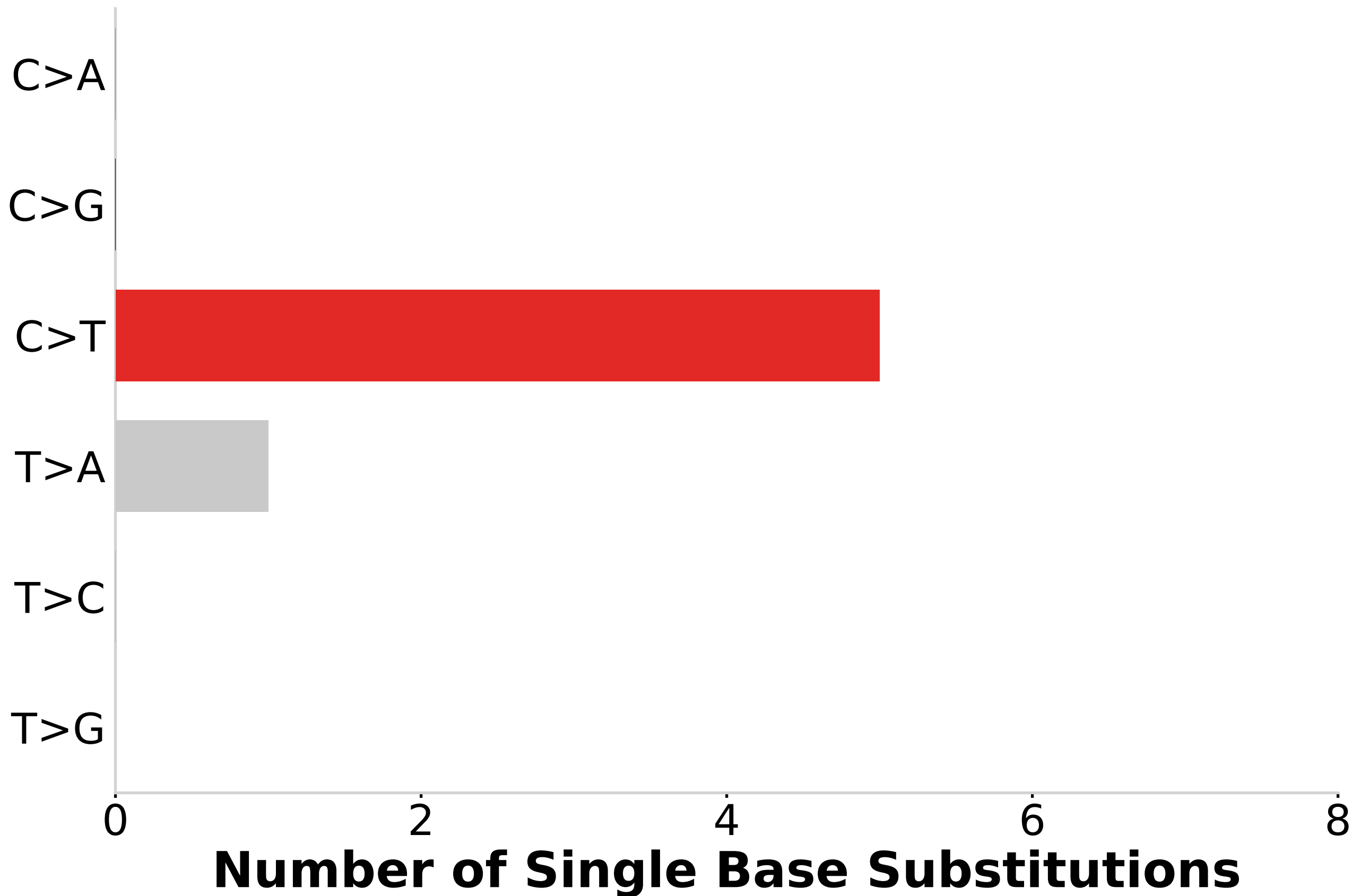
TCGA-CF-A1HS-01A-11D-A13W-08: 72 subs



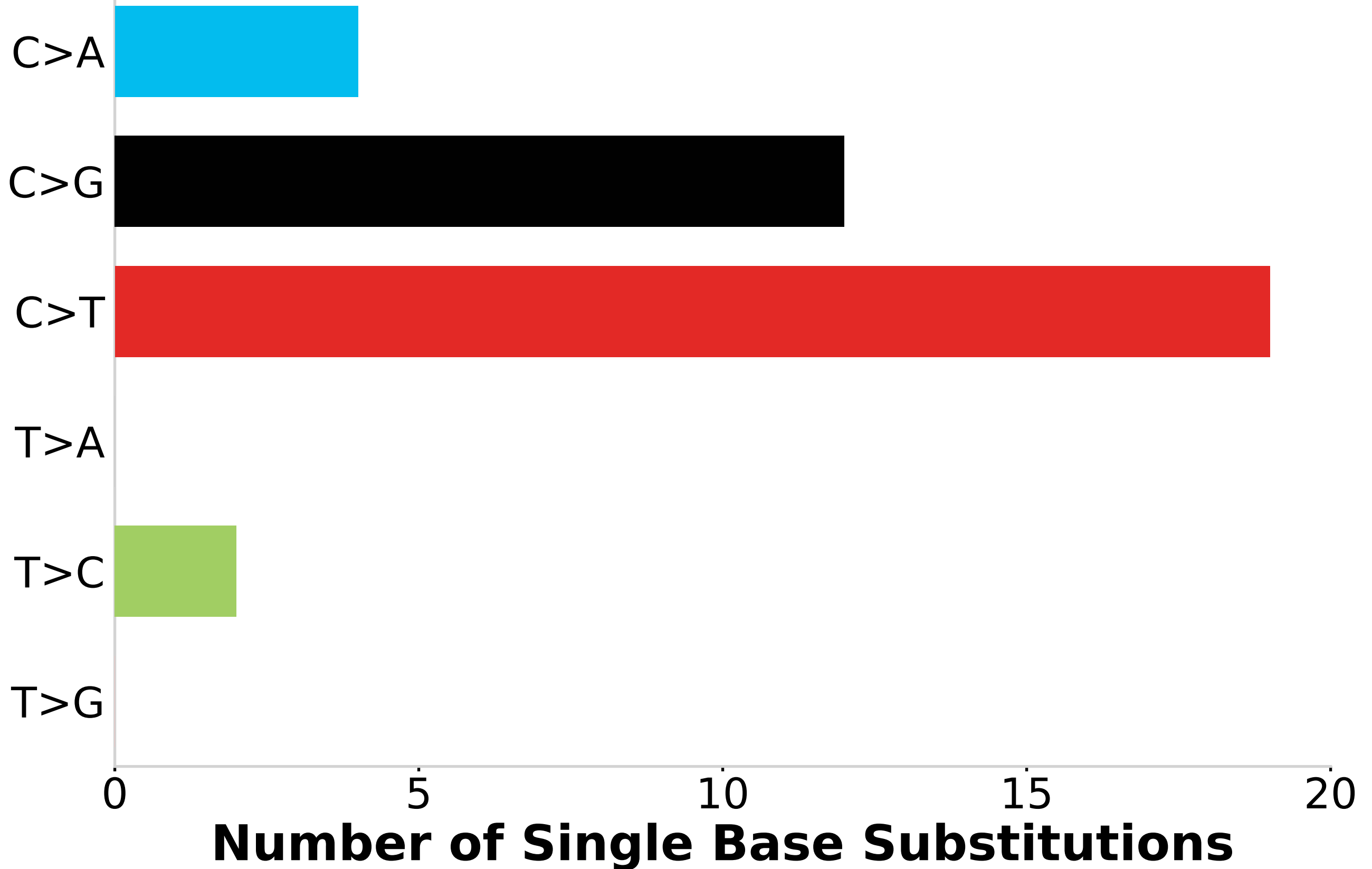
TCGA-CF-A27C-01A-11D-A16O-08: 35 subs



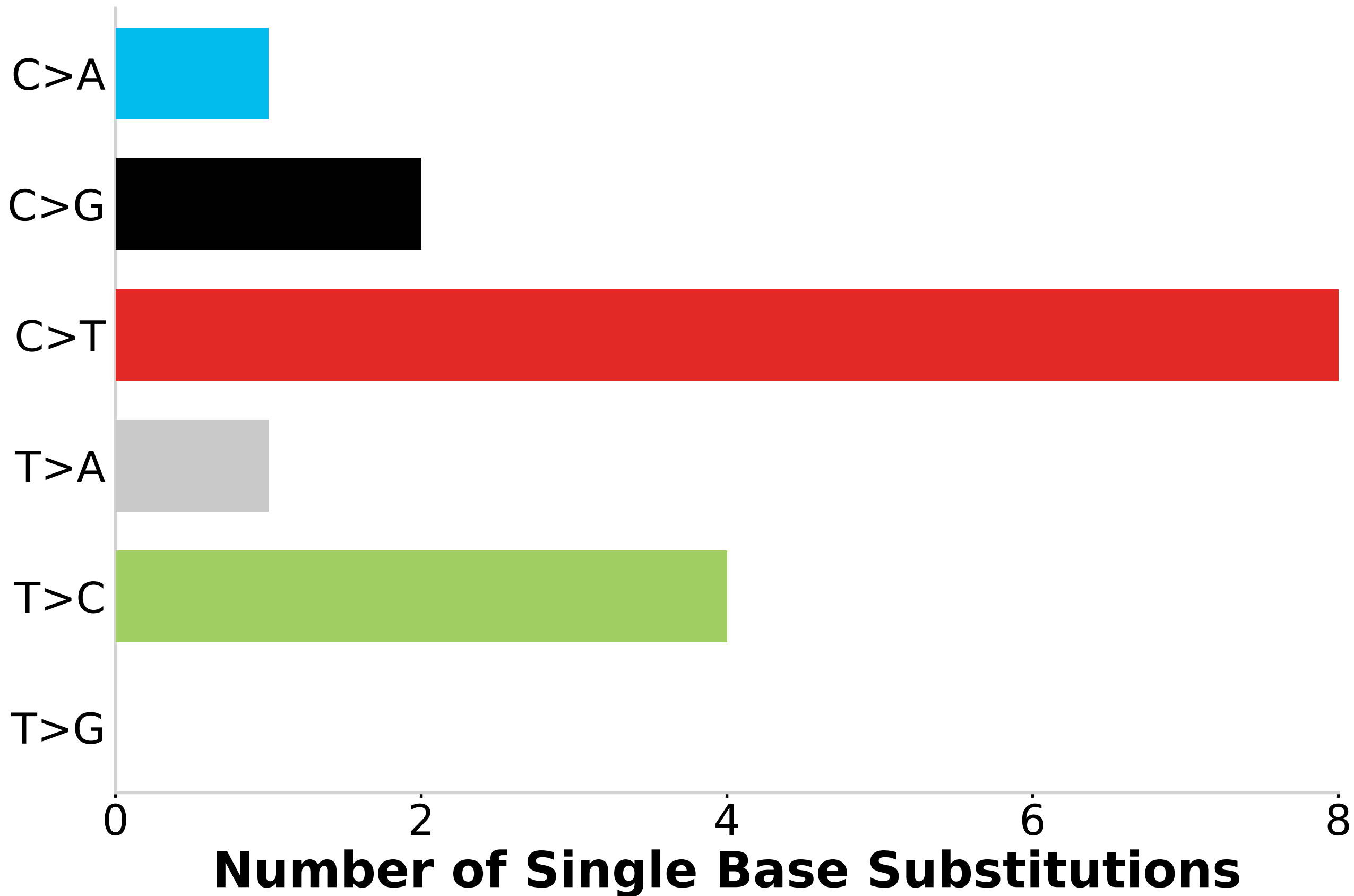
TCGA-CF-A3MF-01A-12D-A21A-08: 6 subs



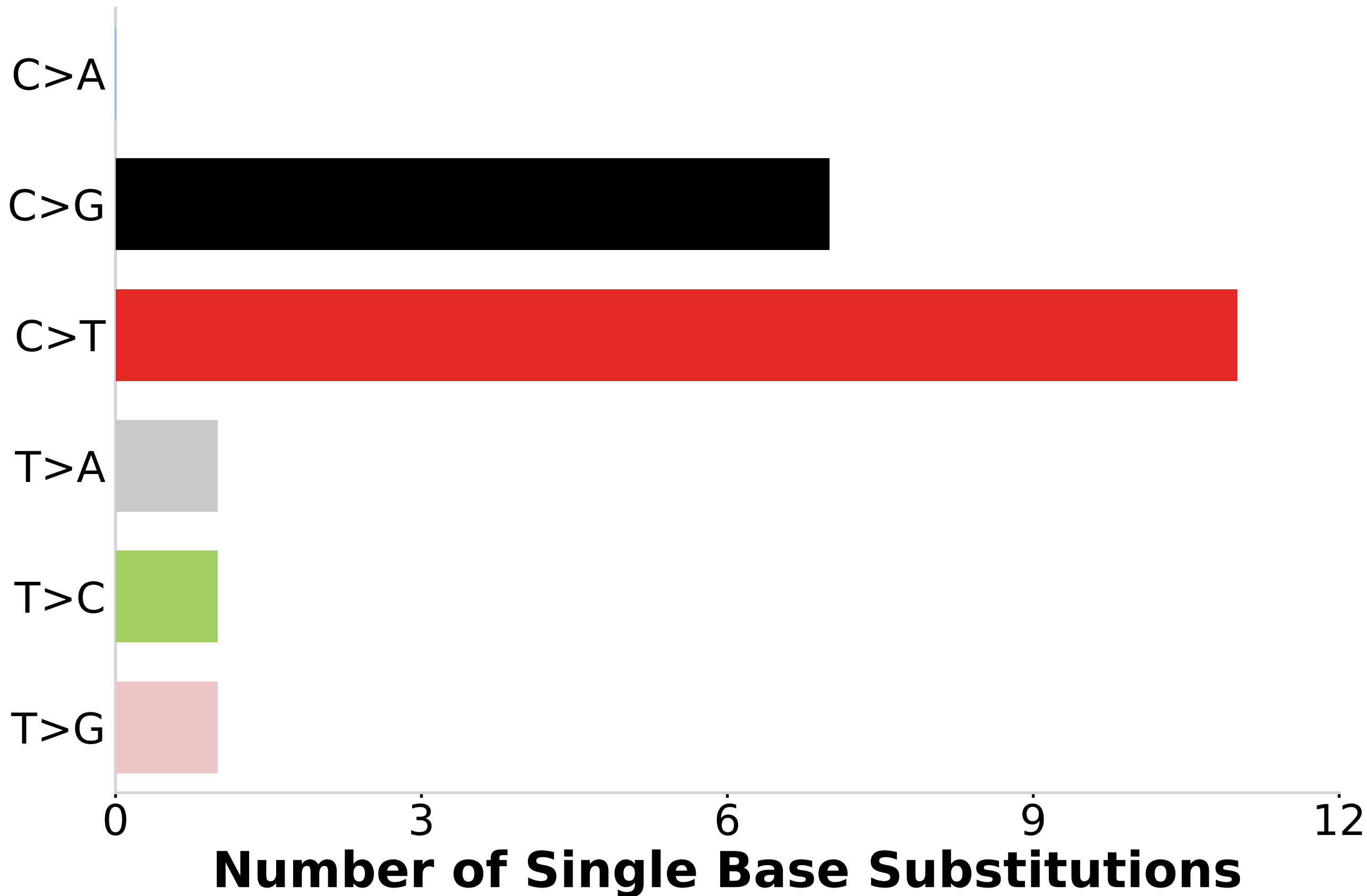
TCGA-CF-A3MG-01A-11D-A20D-08: 37 subs



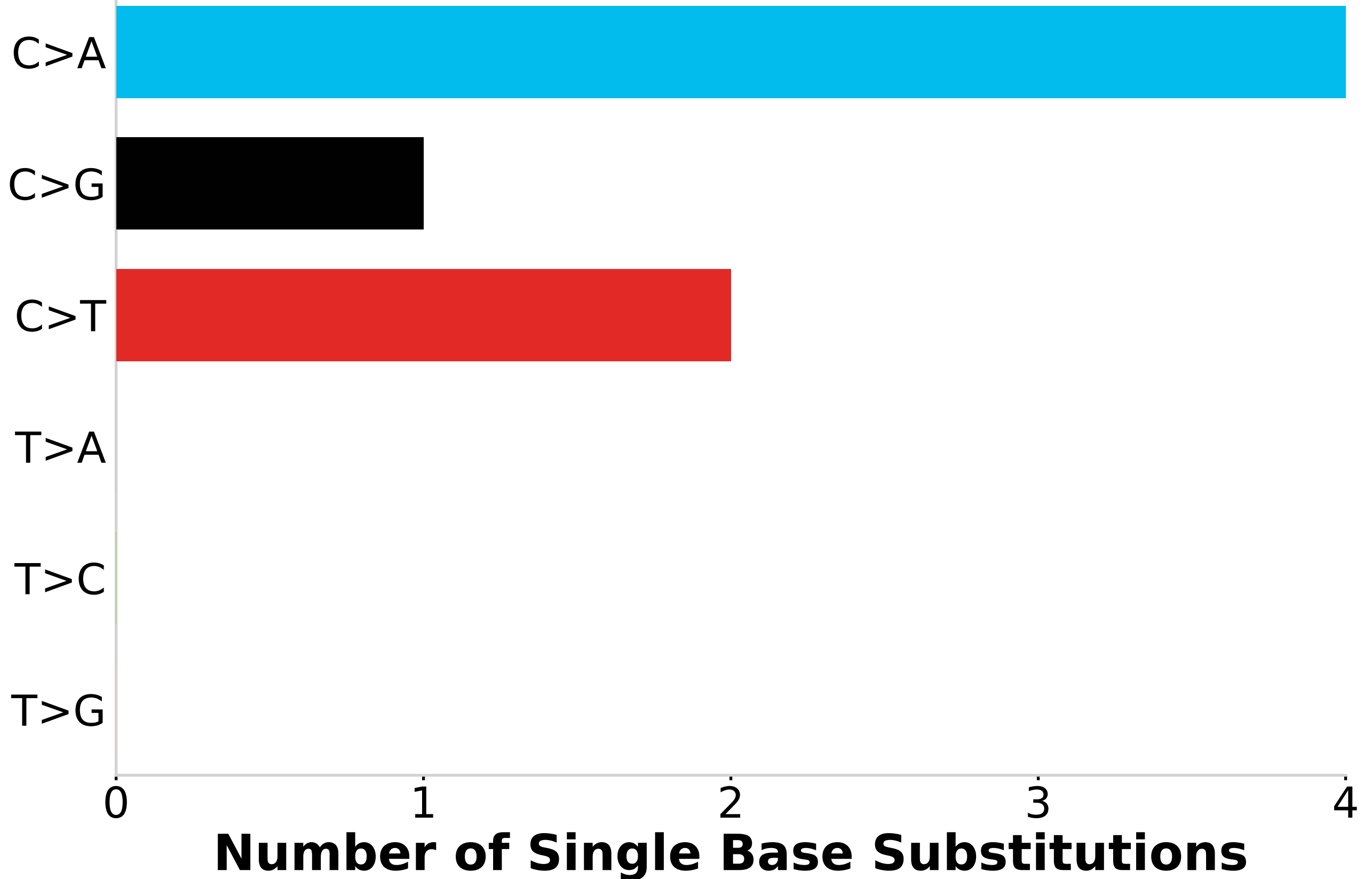
TCGA-CF-A3MH-01A-11D-A20D-08: 16 subs



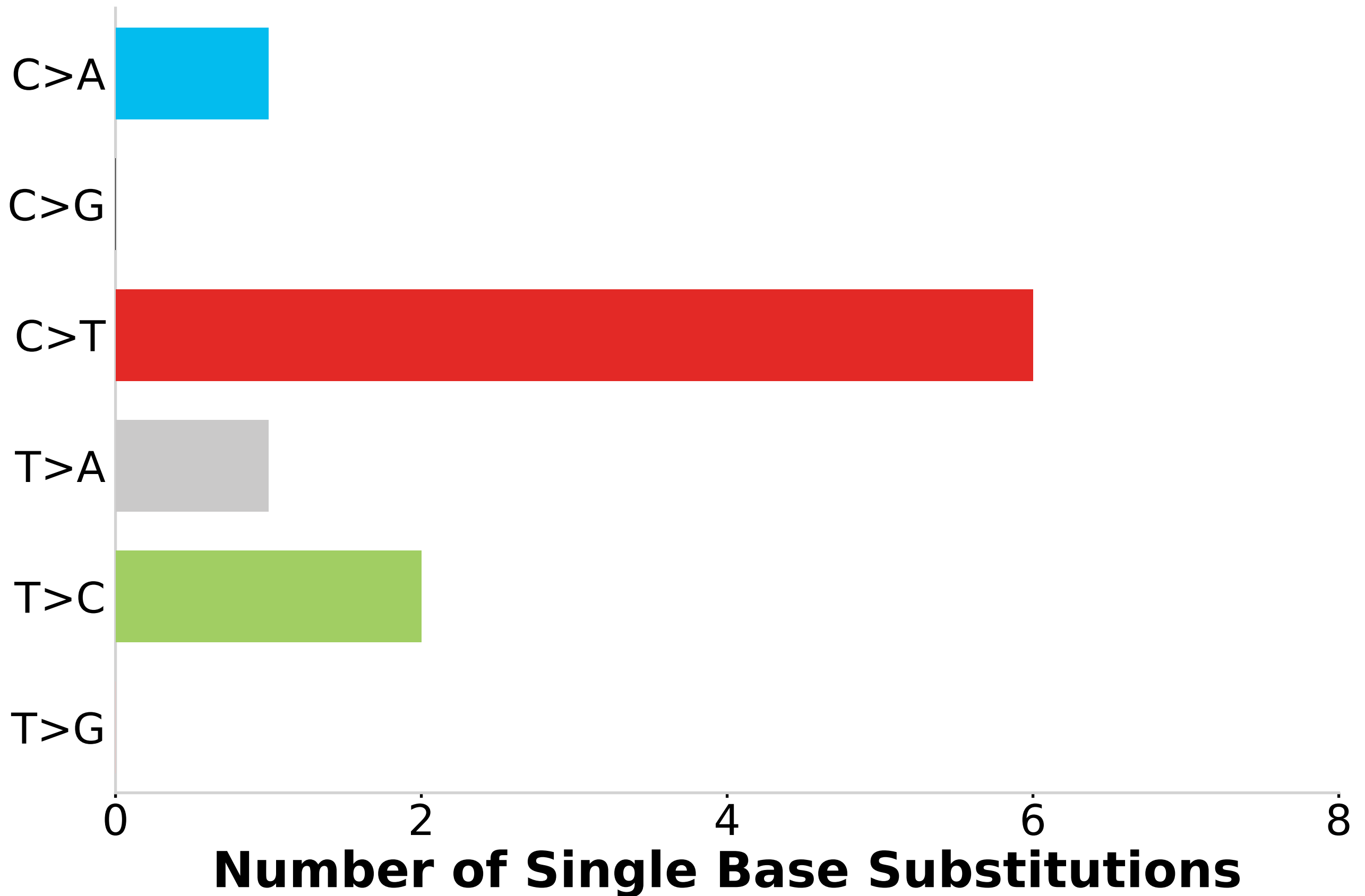
TCGA-CF-A3MI-01A-11D-A20D-08: 21 subs



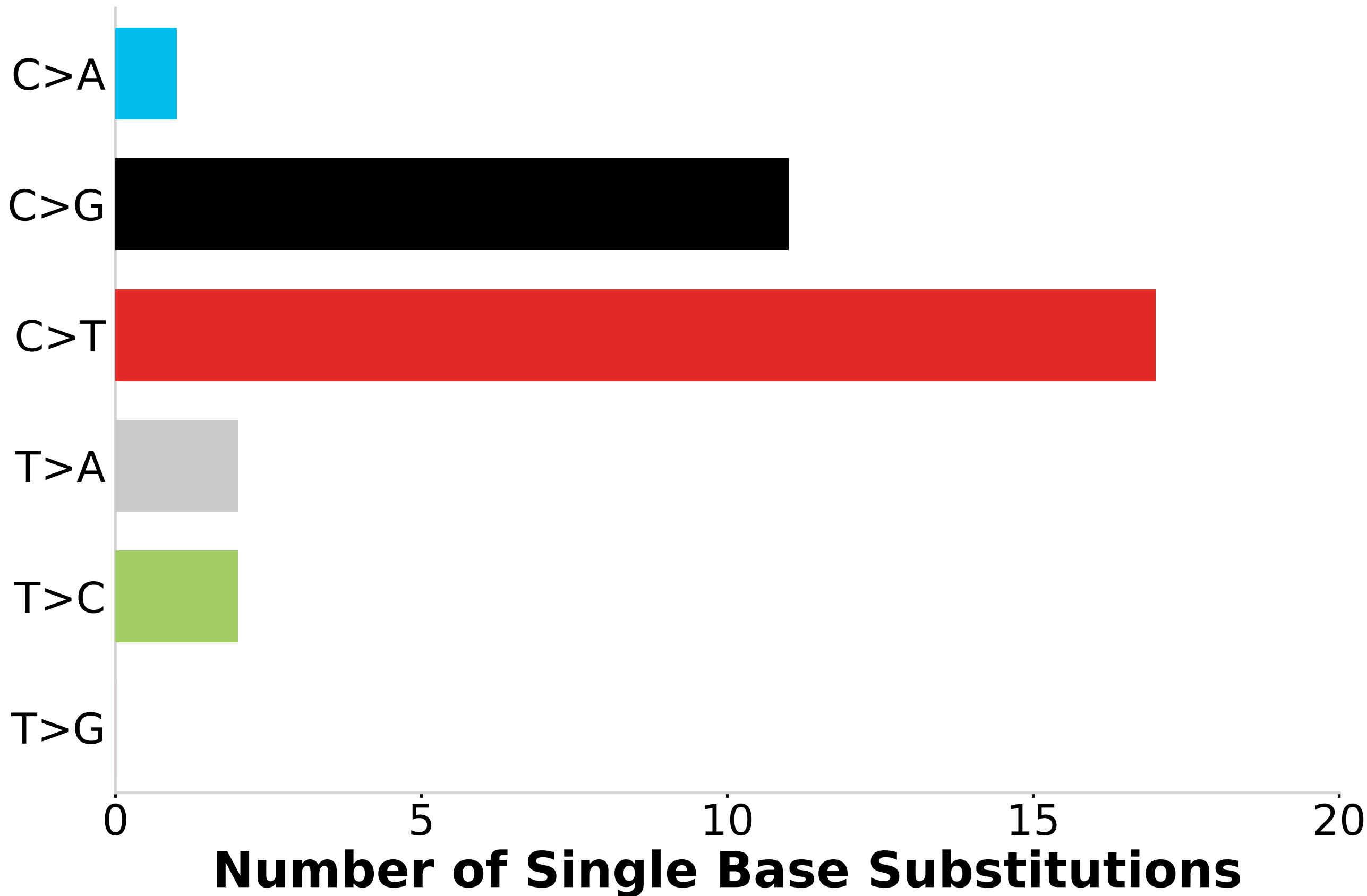
TCGA-CF-A47S-01A-11D-A23U-08: 7 subs



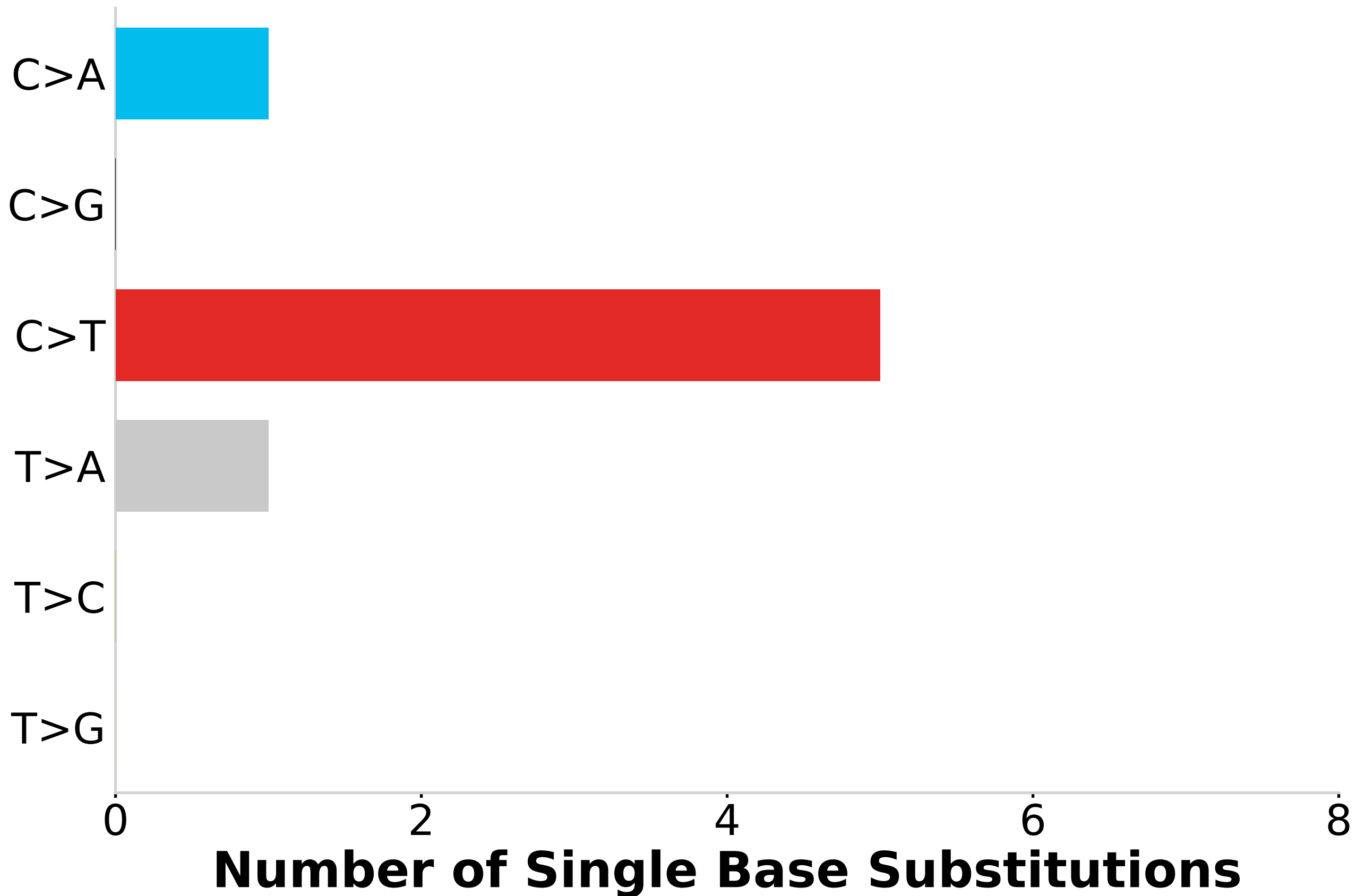
TCGA-CF-A47T-01A-11D-A23U-08: 10 subs



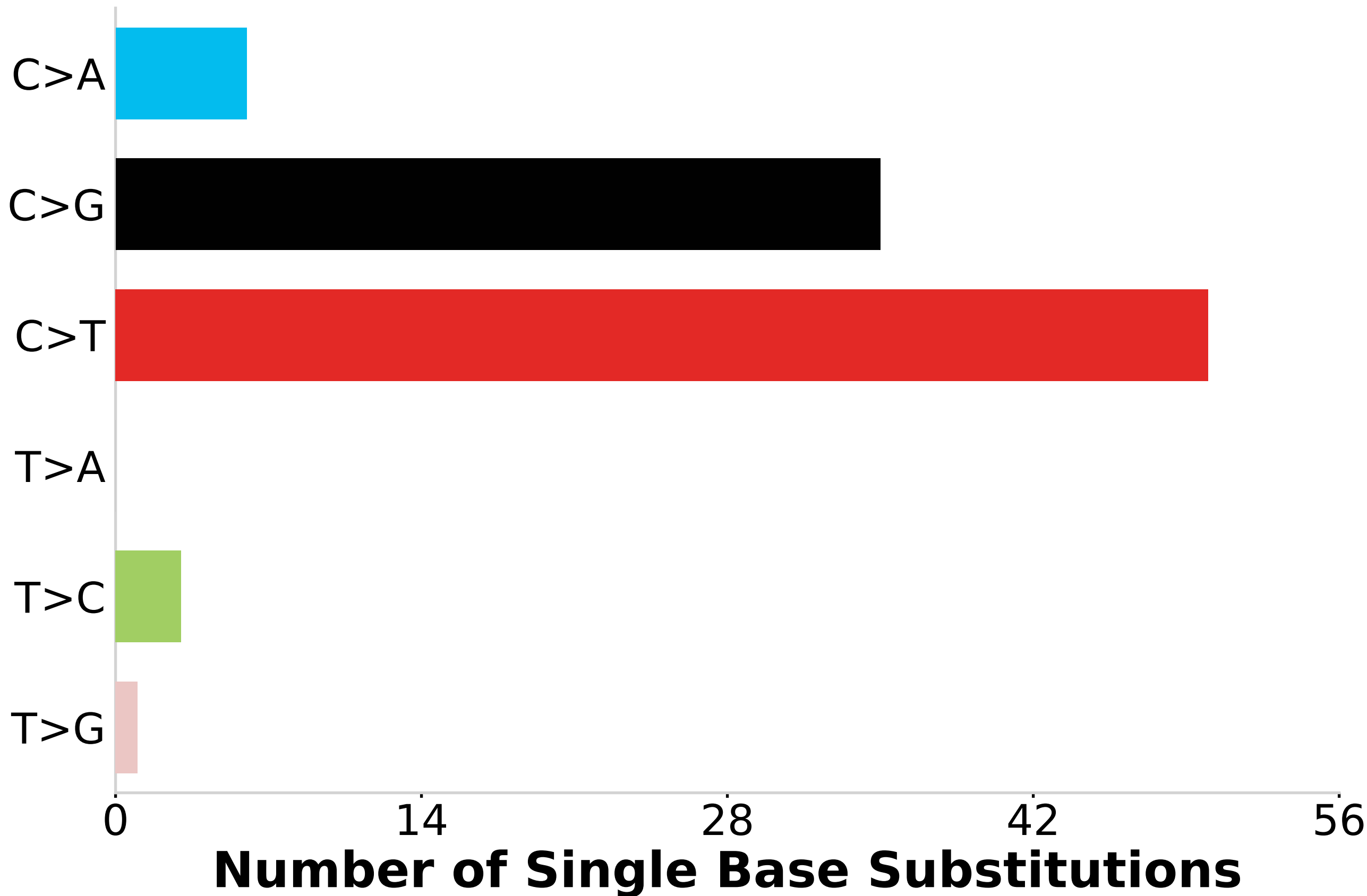
TCGA-CF-A47V-01A-11D-A23U-08: 33 subs



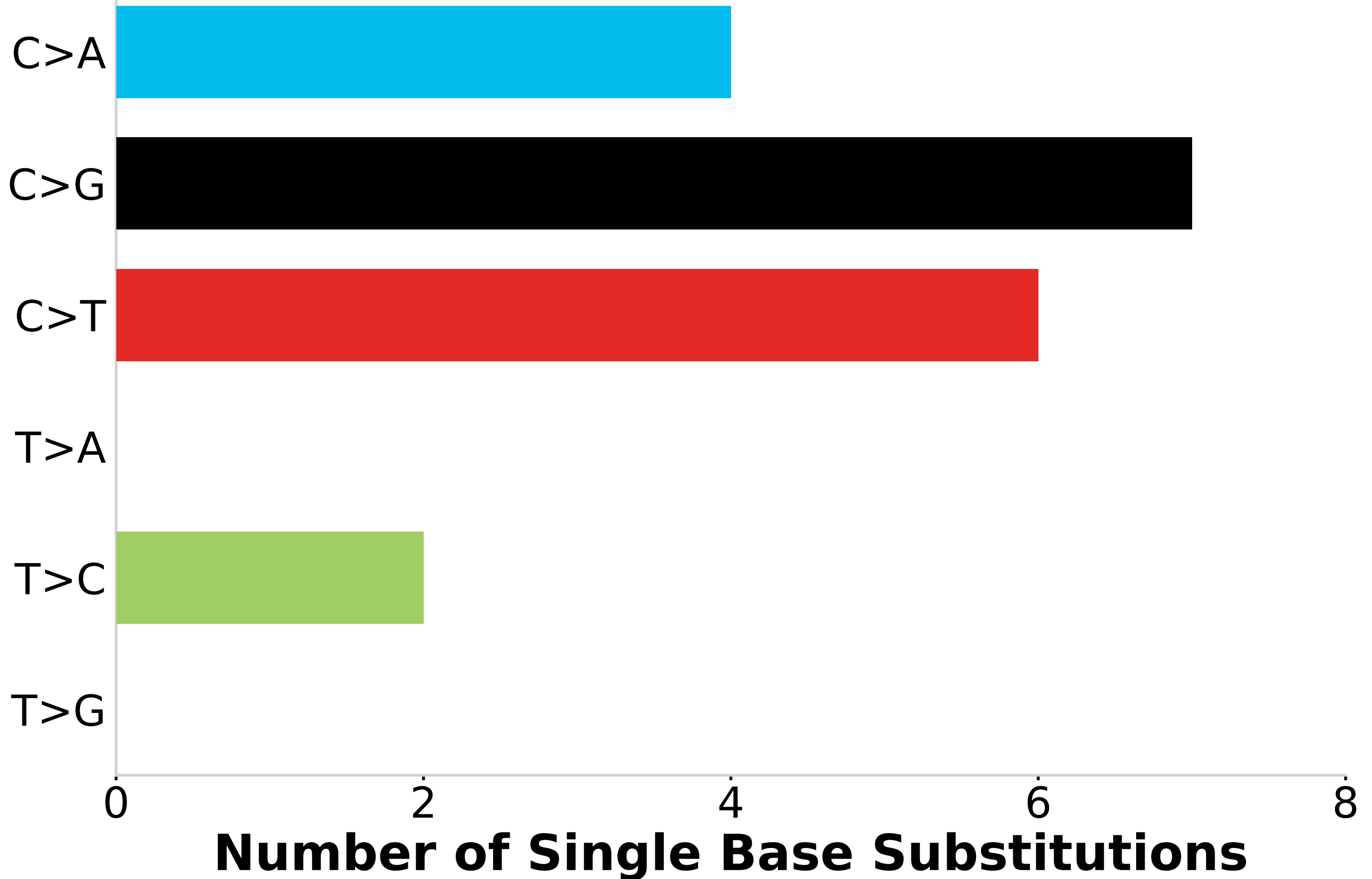
TCGA-CF-A47W-01A-11D-A23U-08: 7 subs



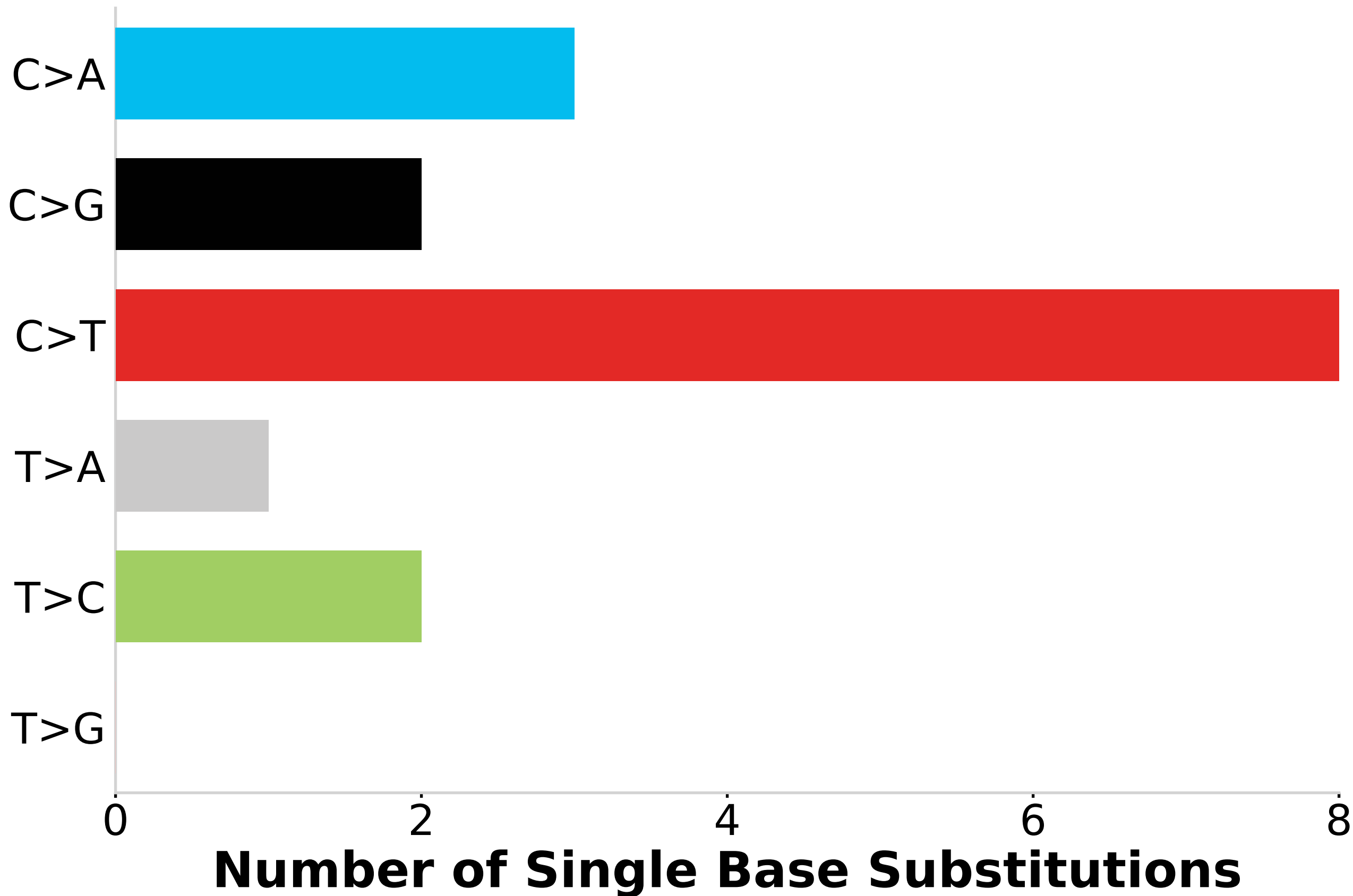
TCGA-CF-A47X-01A-31D-A23U-08: 95 subs



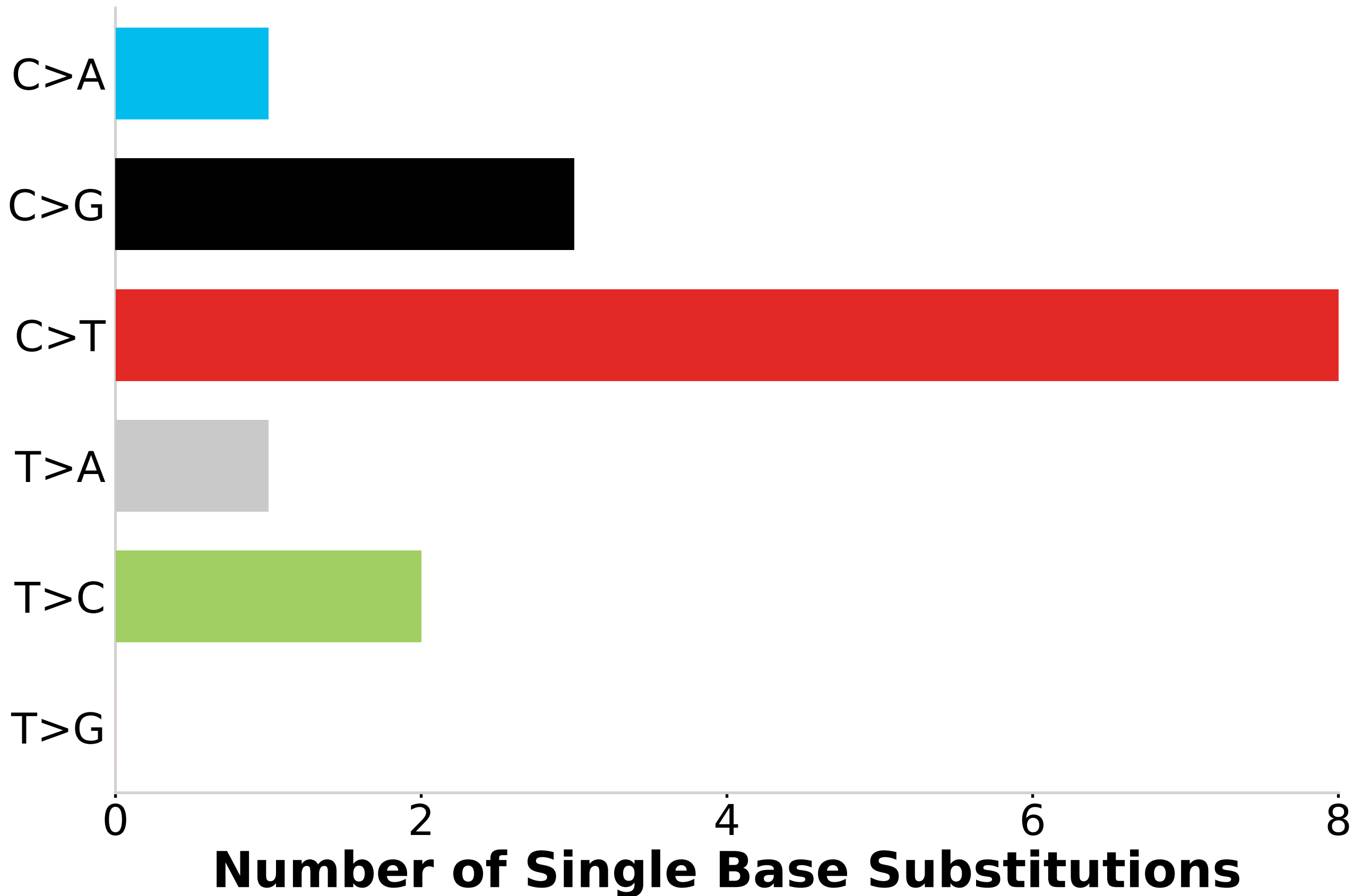
TCGA-CF-A47Y-01A-11D-A23U-08: 19 subs



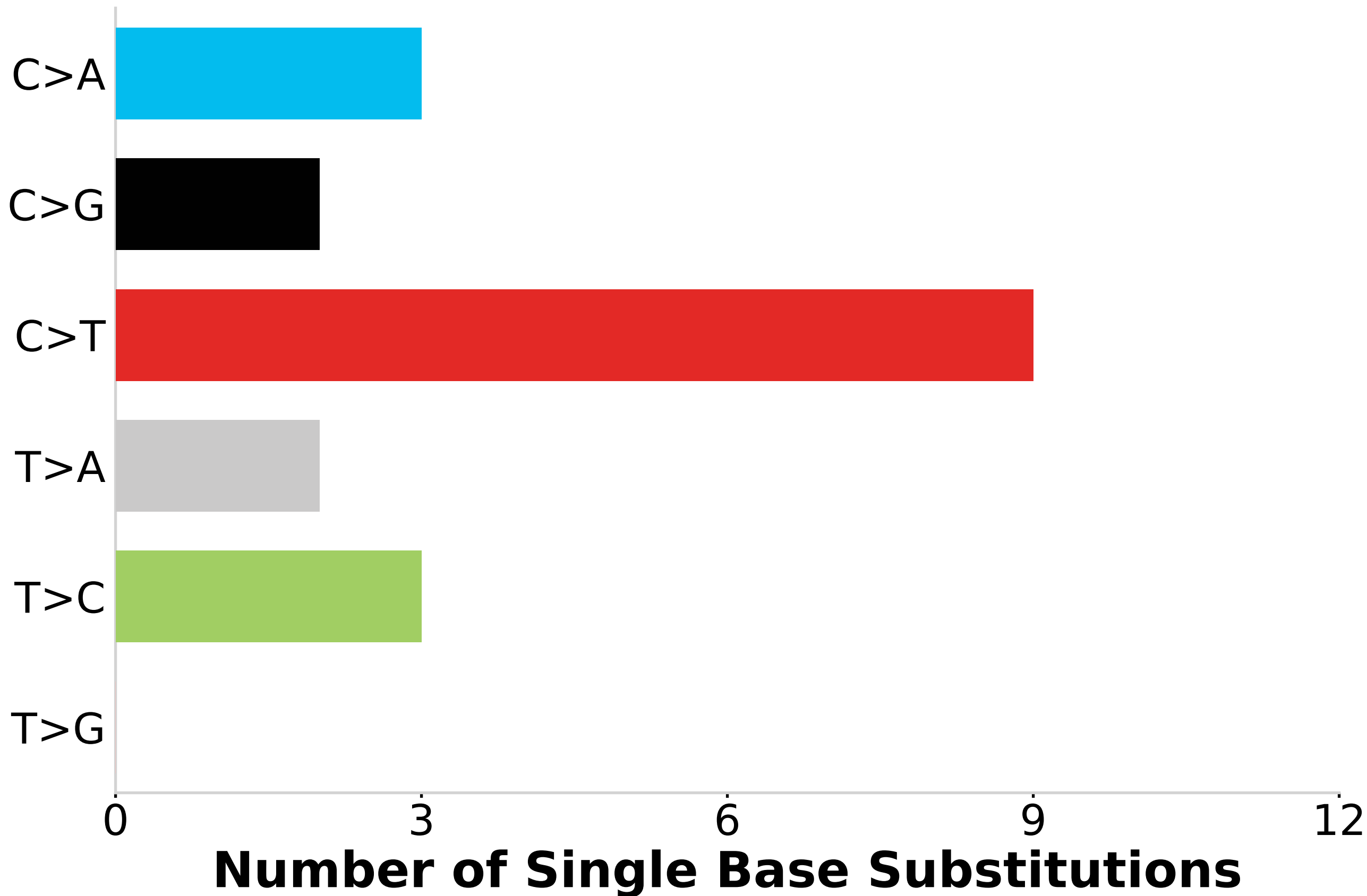
TCGA-CF-A5U8-01A-11D-A289-08: 16 subs



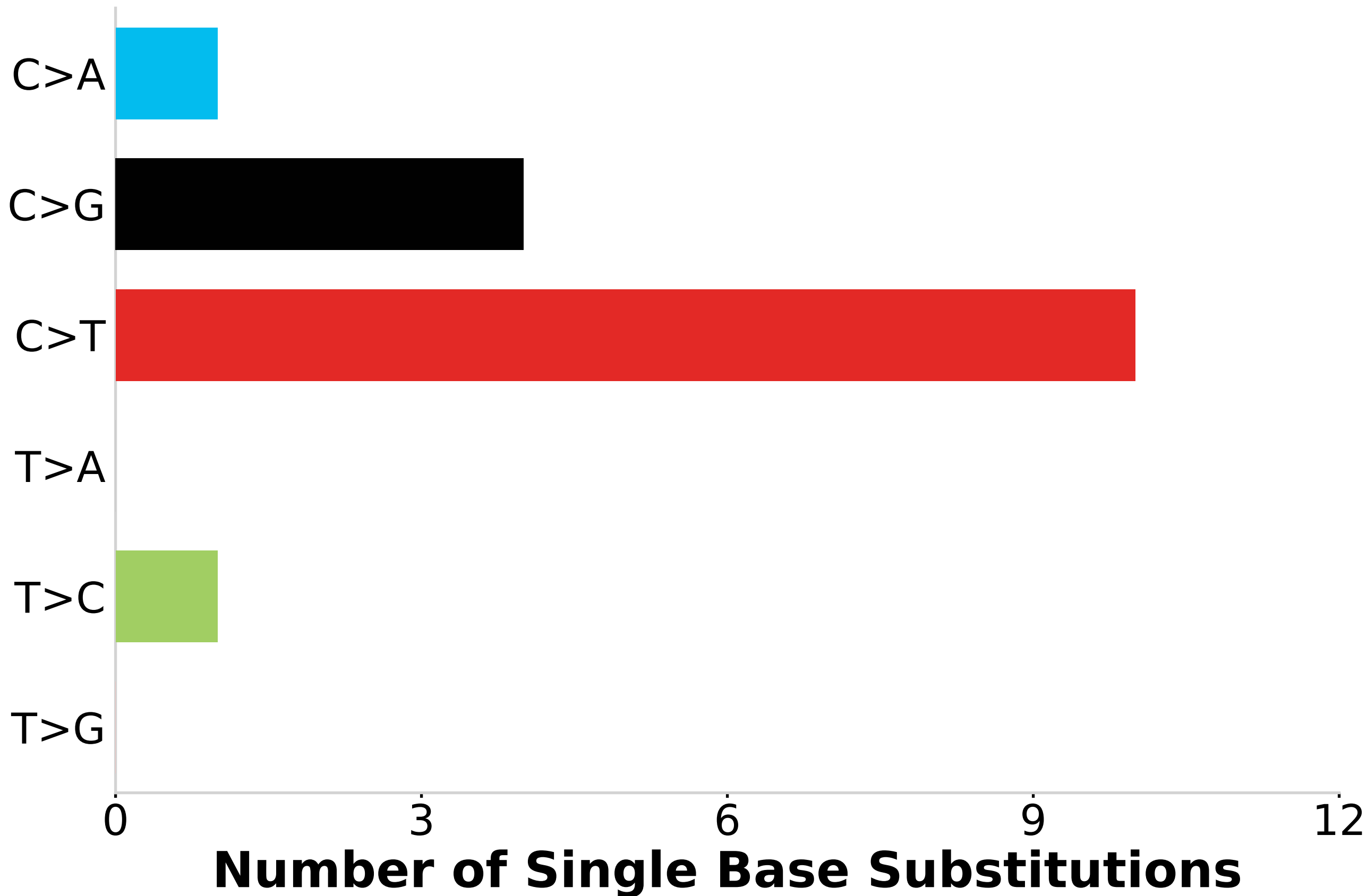
TCGA-CF-A5UA-01A-11D-A289-08: 15 subs



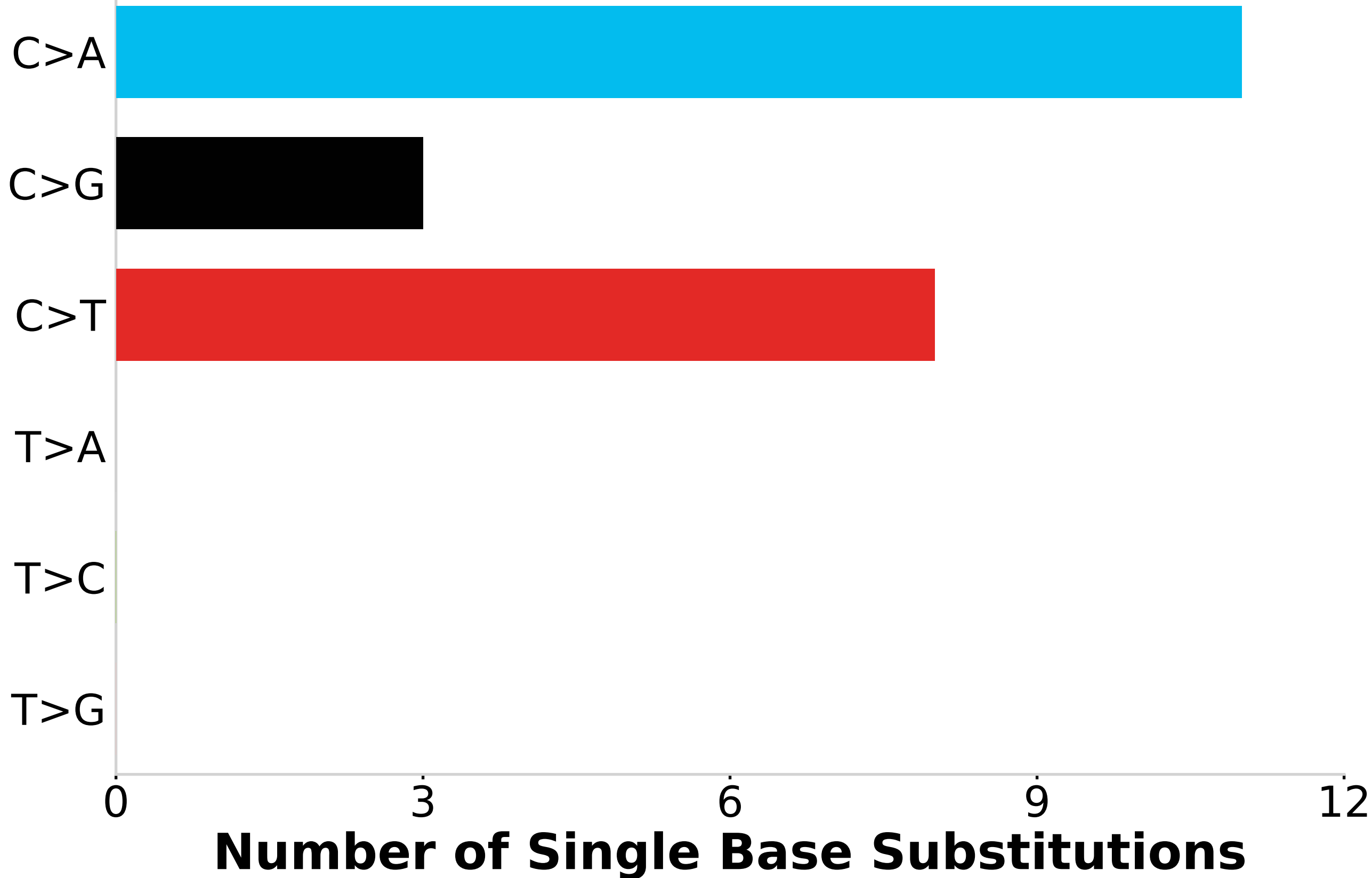
TCGA-CF-A710-01A-22D-A34U-08: 19 subs



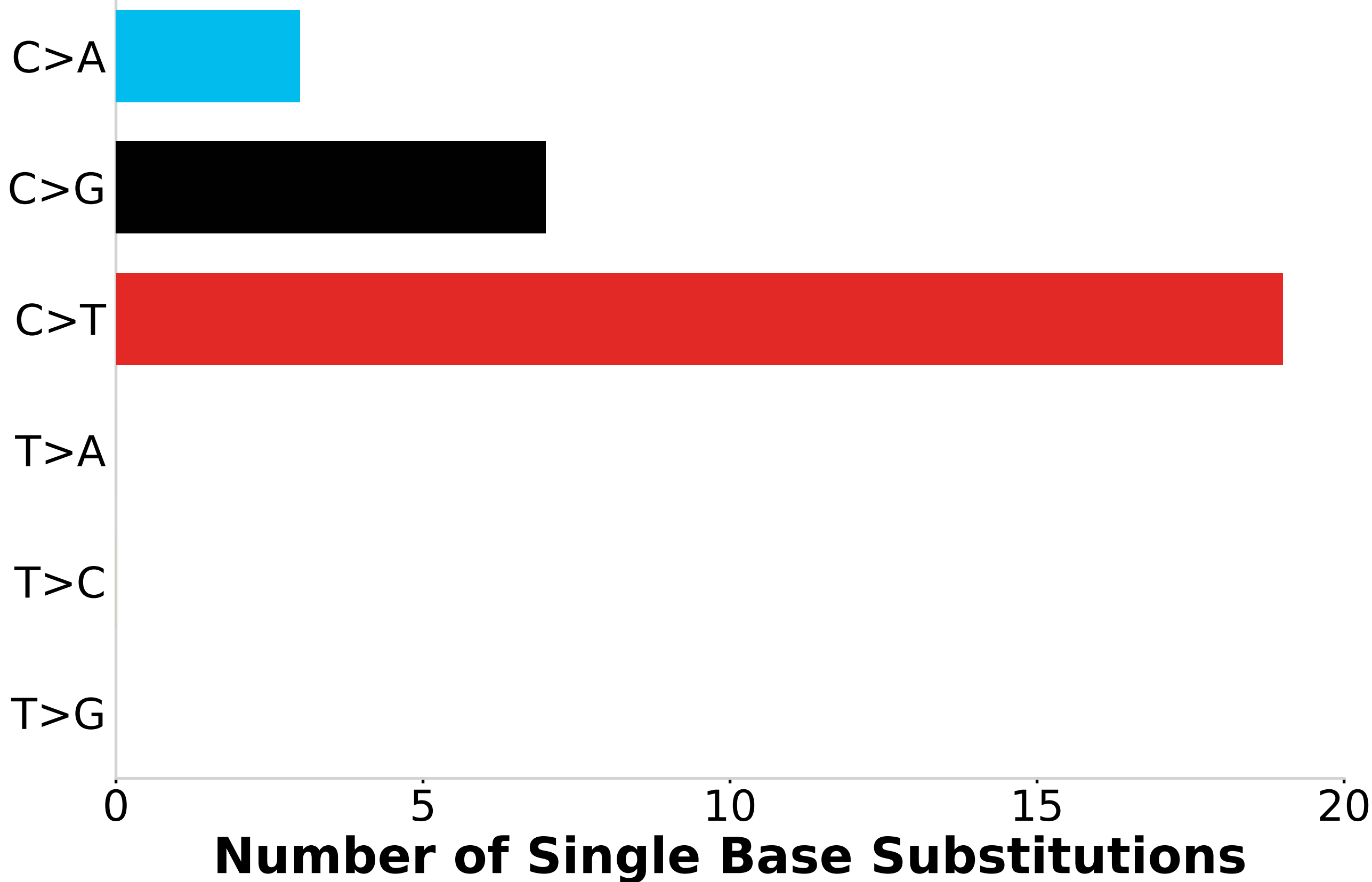
TCGA-CF-A8HX-01A-11D-A364-08: 16 subs



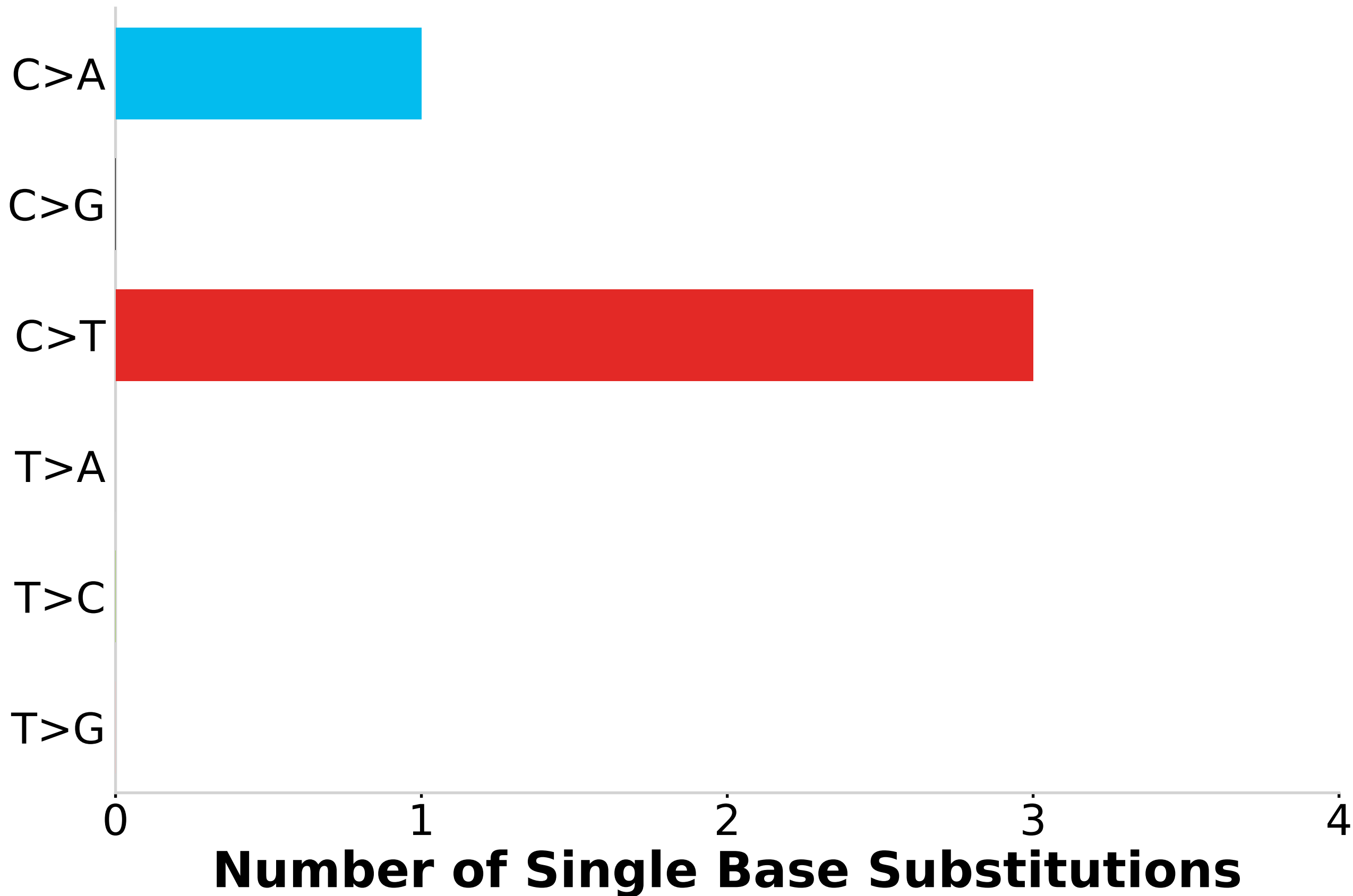
TCGA-CF-A8HY-01A-11D-A364-08: 22 subs



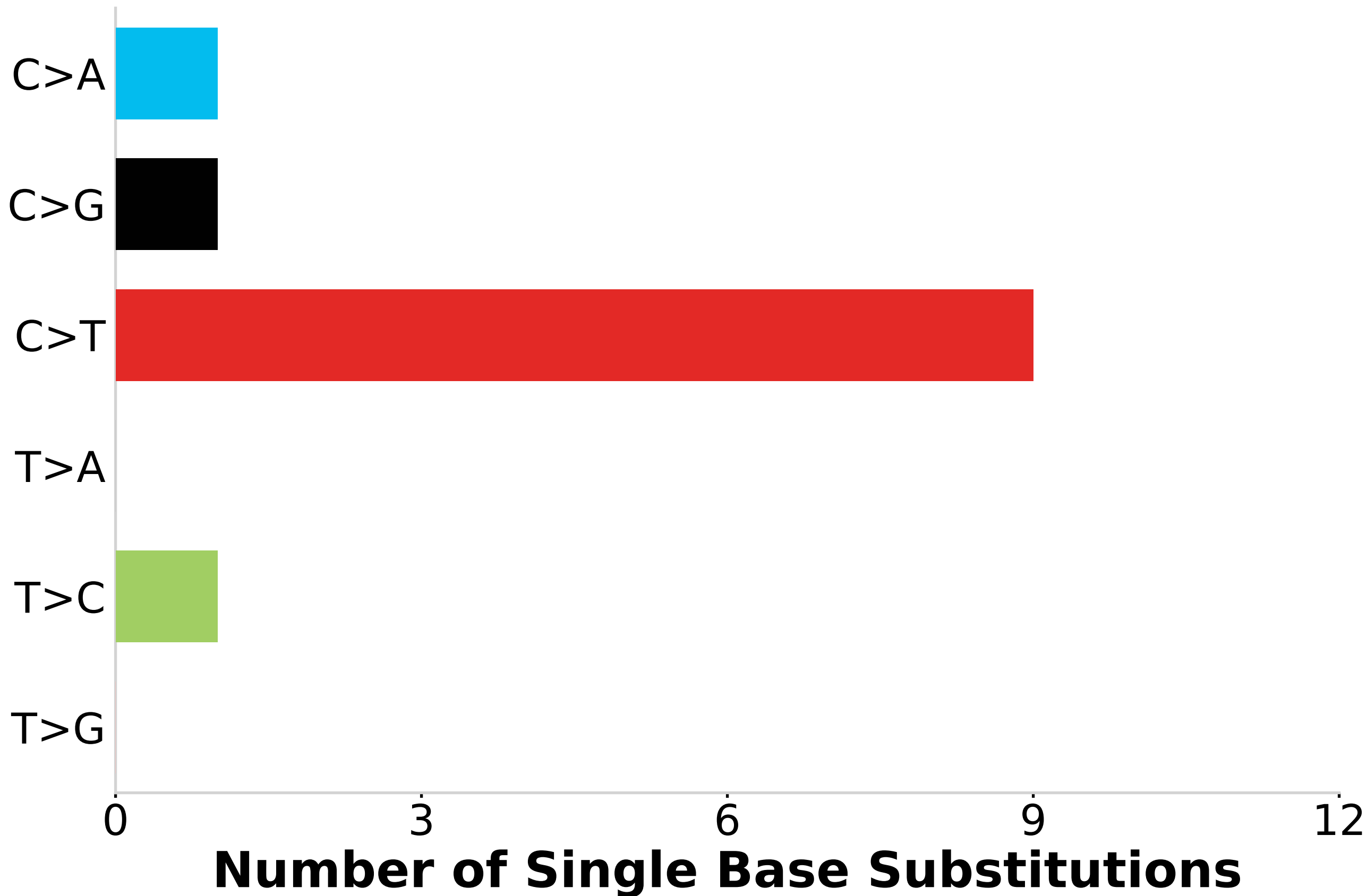
TCGA-CF-A9FF-01A-11D-A38G-08: 29 subs



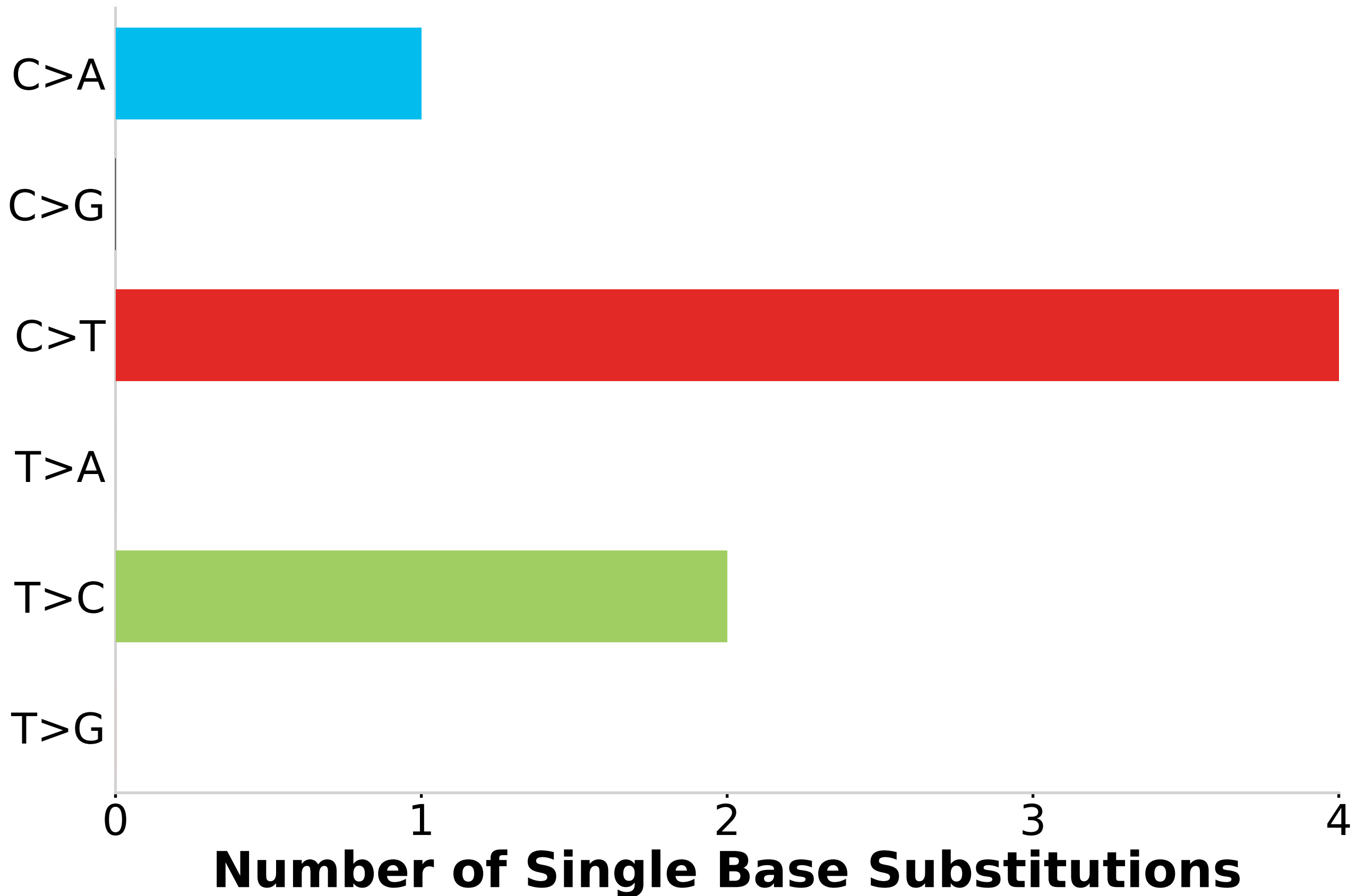
TCGA-CF-A9FH-01A-11D-A38G-08: 4 subs



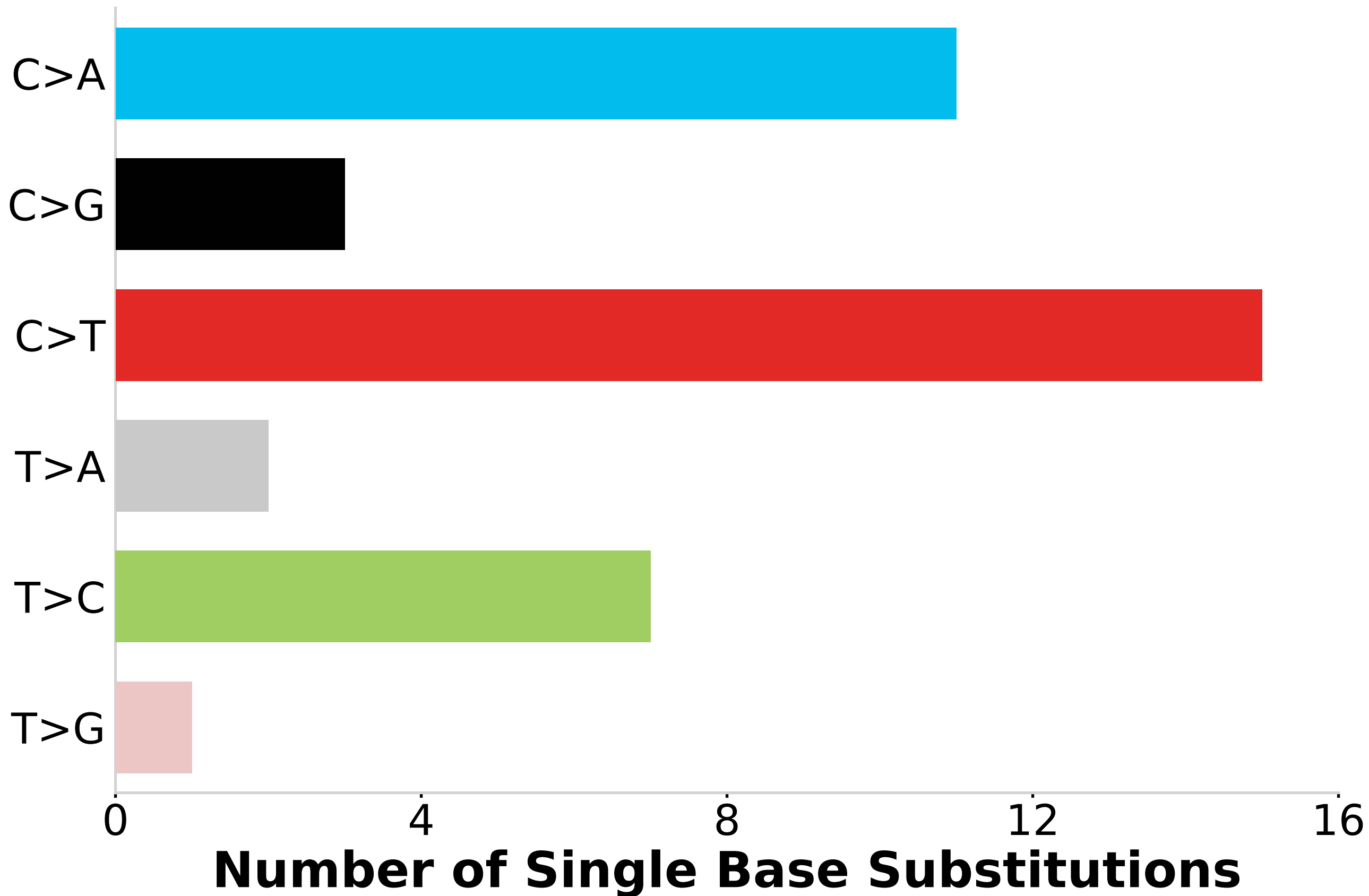
TCGA-CF-A9FL-01A-11D-A38G-08: 12 subs



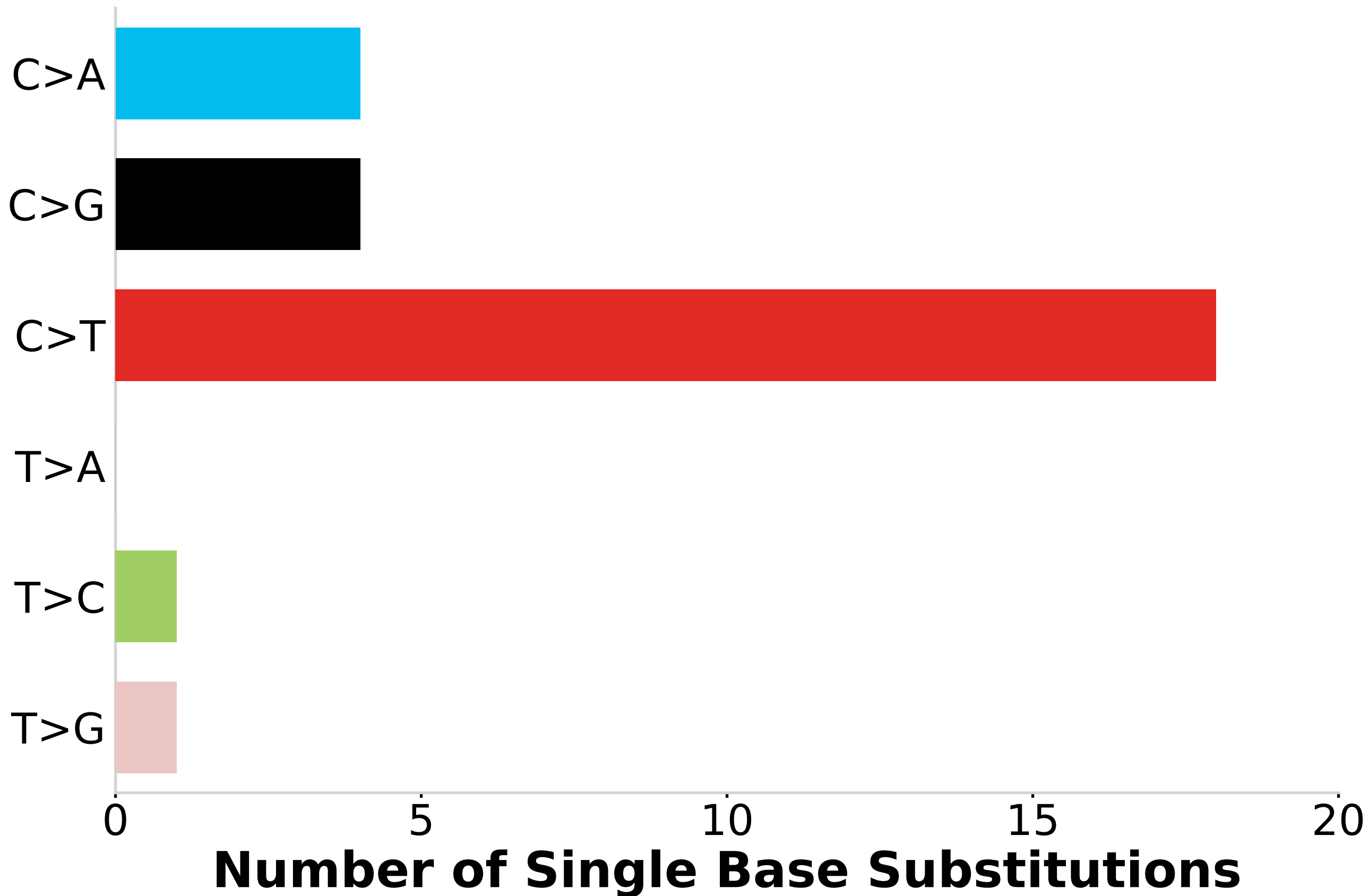
TCGA-CF-A9FM-01A-11D-A38G-08: 7 subs



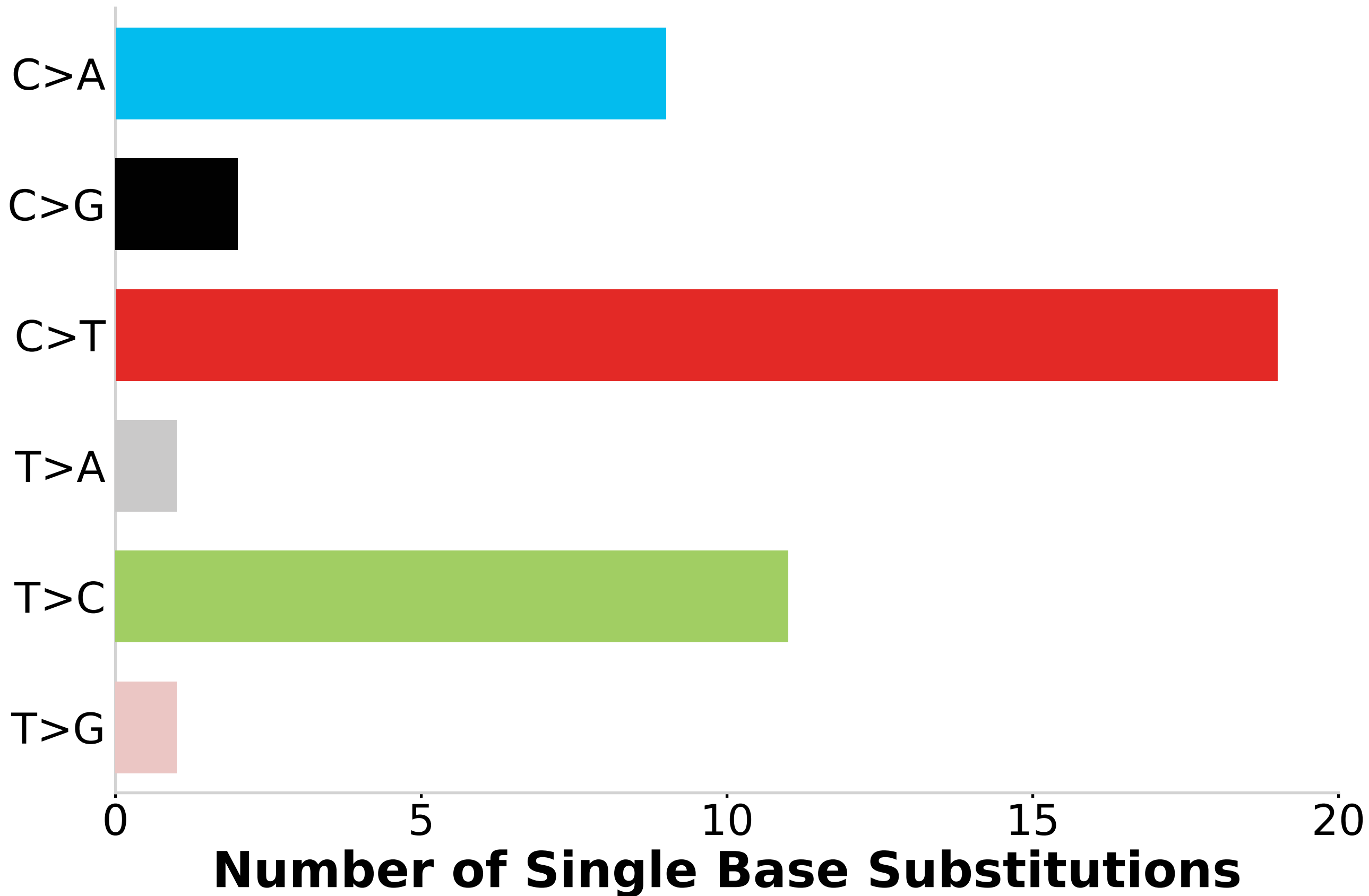
TCGA-CU-A0YN-01A-21D-A10S-08: 39 subs



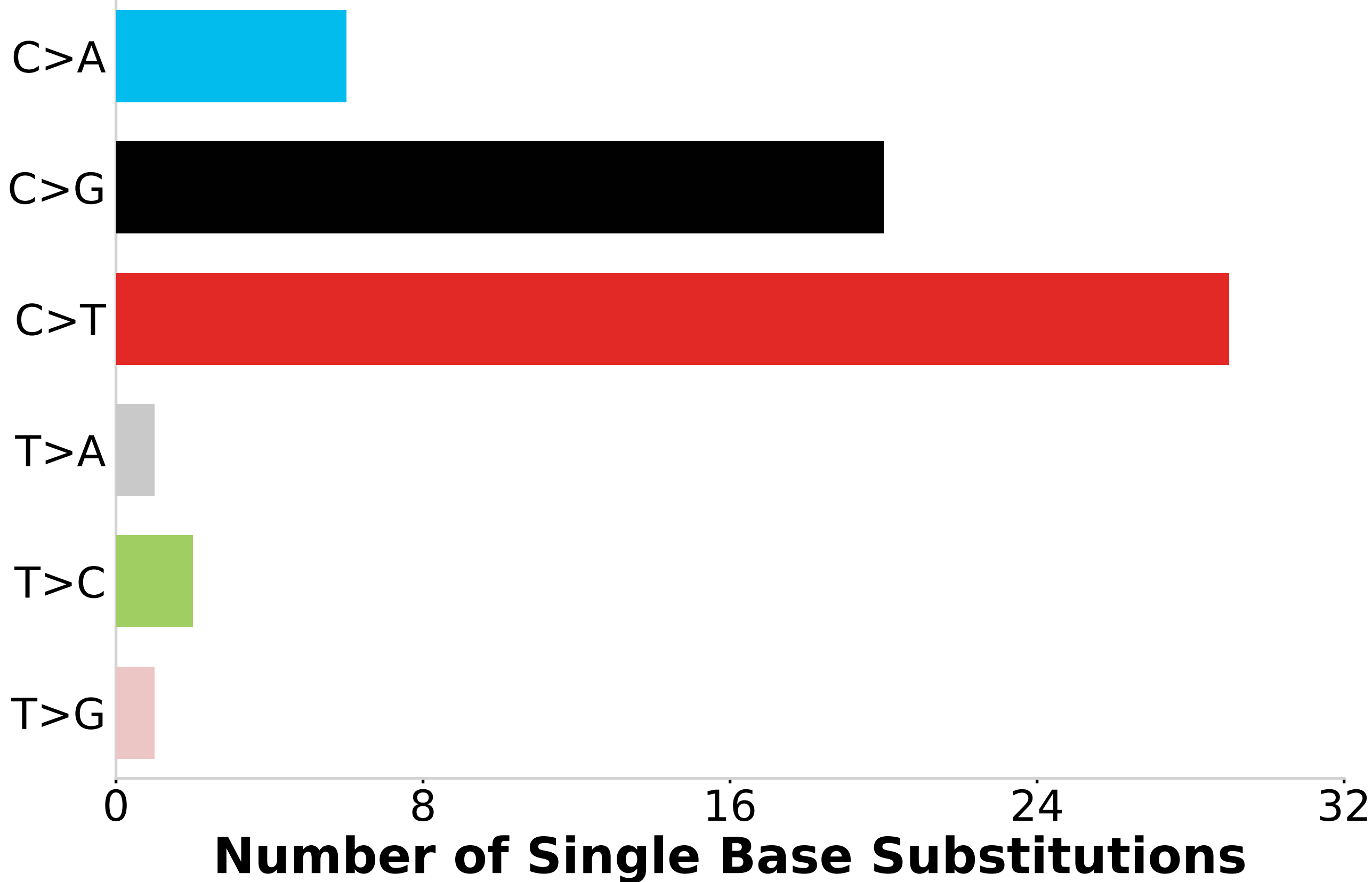
TCGA-CU-A0YO-01A-11D-A10S-08: 28 subs



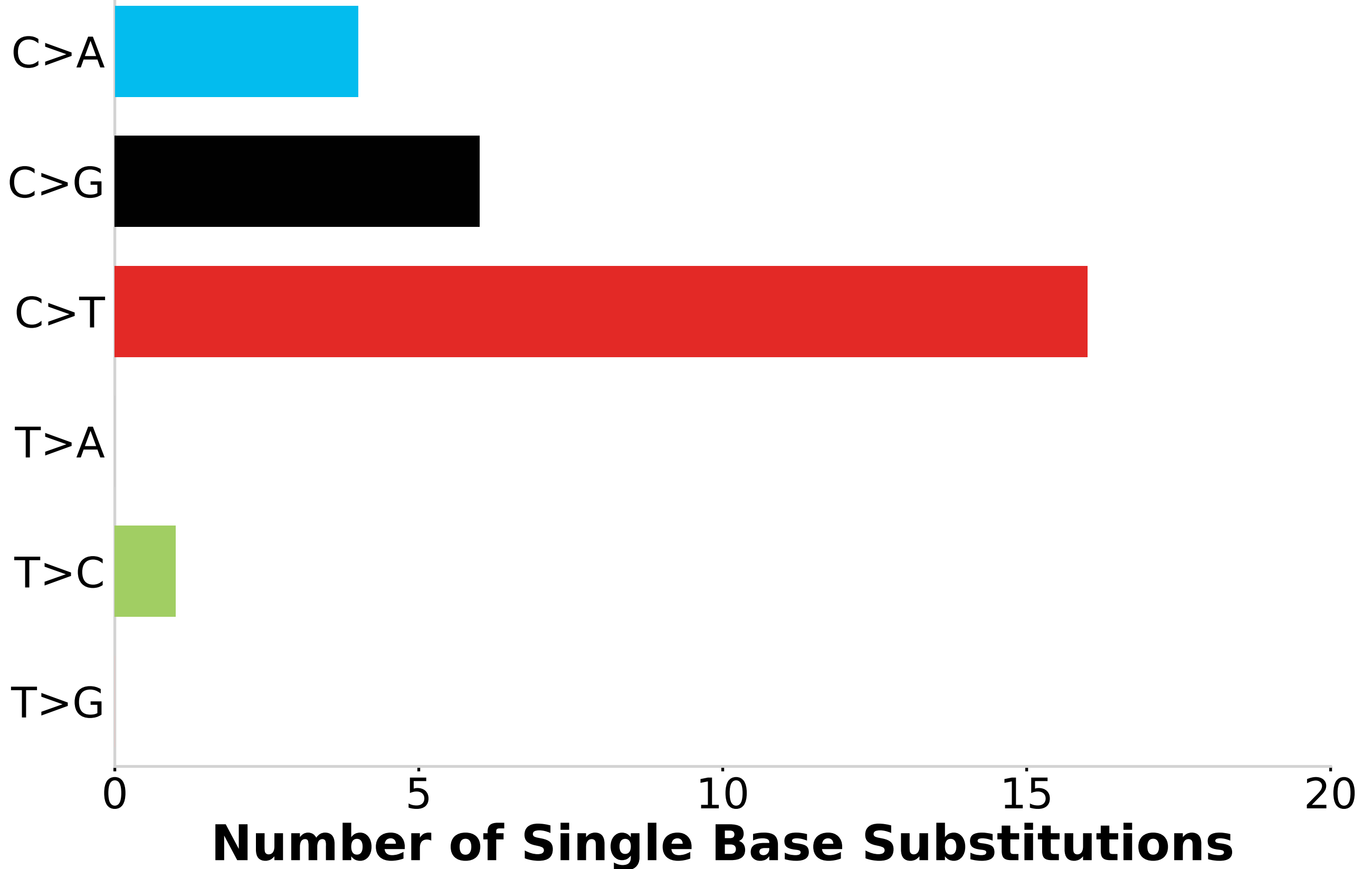
TCGA-CU-A0YR-01A-12D-A10S-08: 43 subs



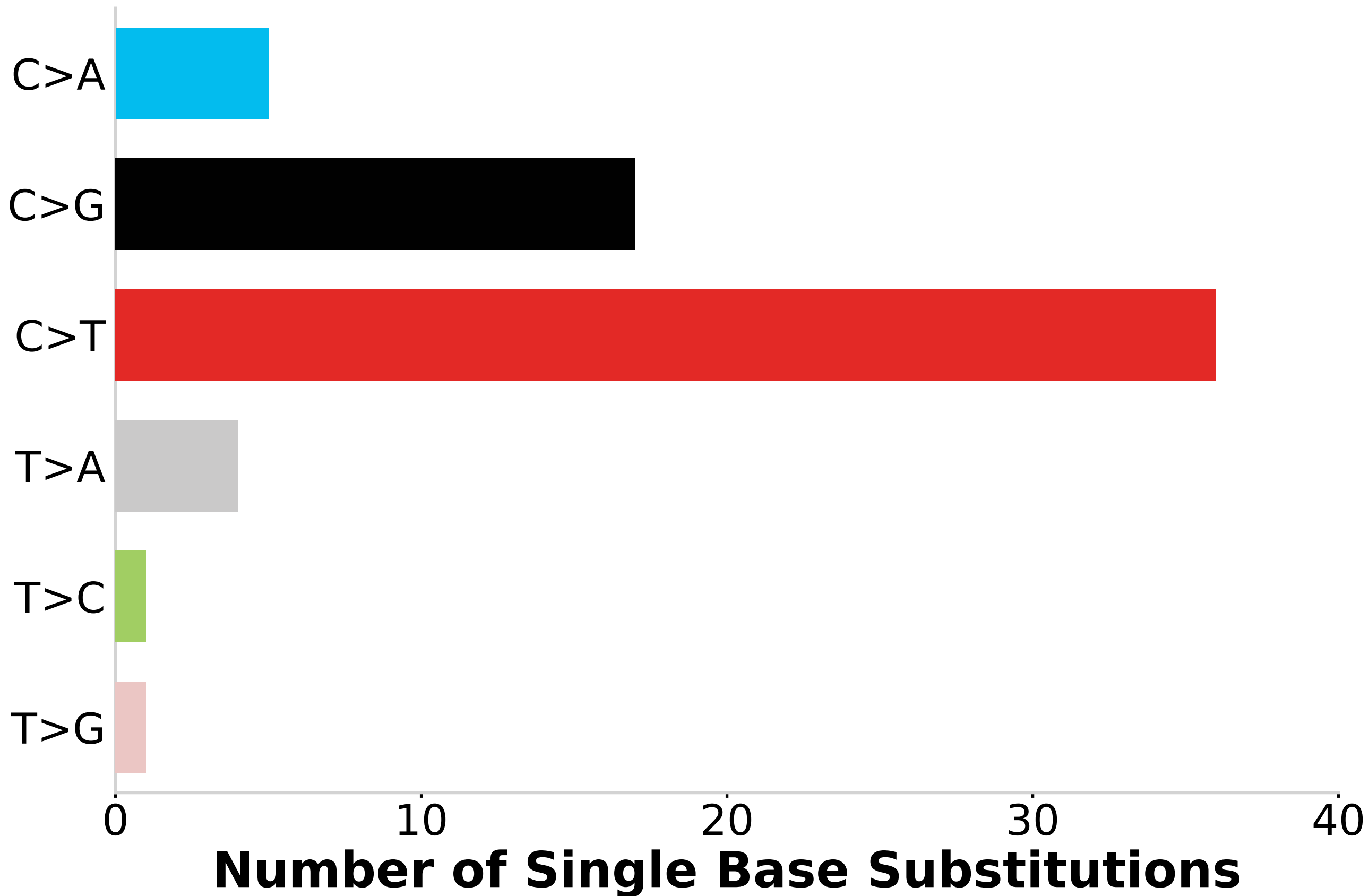
TCGA-CU-A3KJ-01A-11D-A21A-08: 59 subs



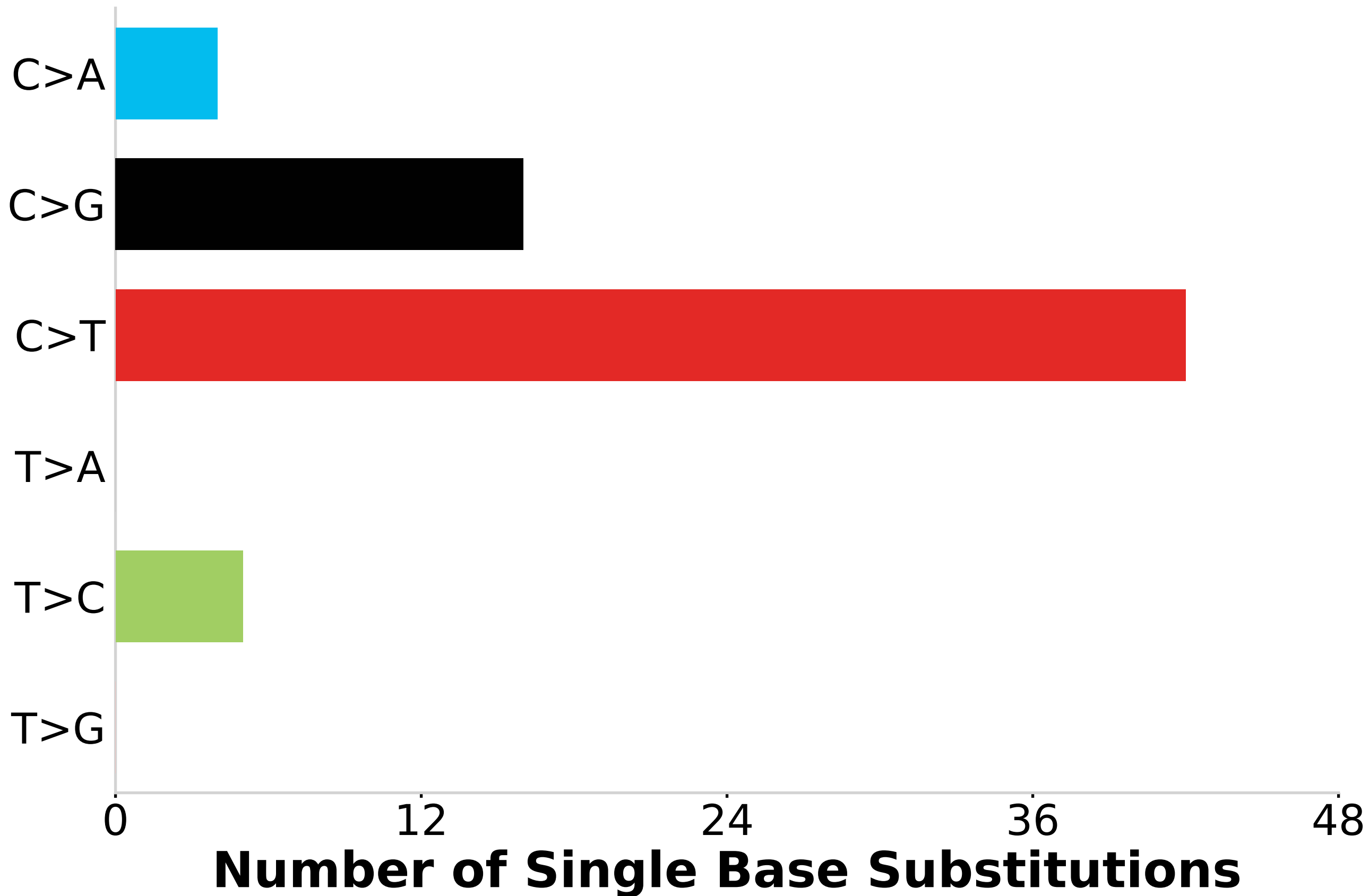
TCGA-CU-A3QU-01A-11D-A22Z-08: 27 subs



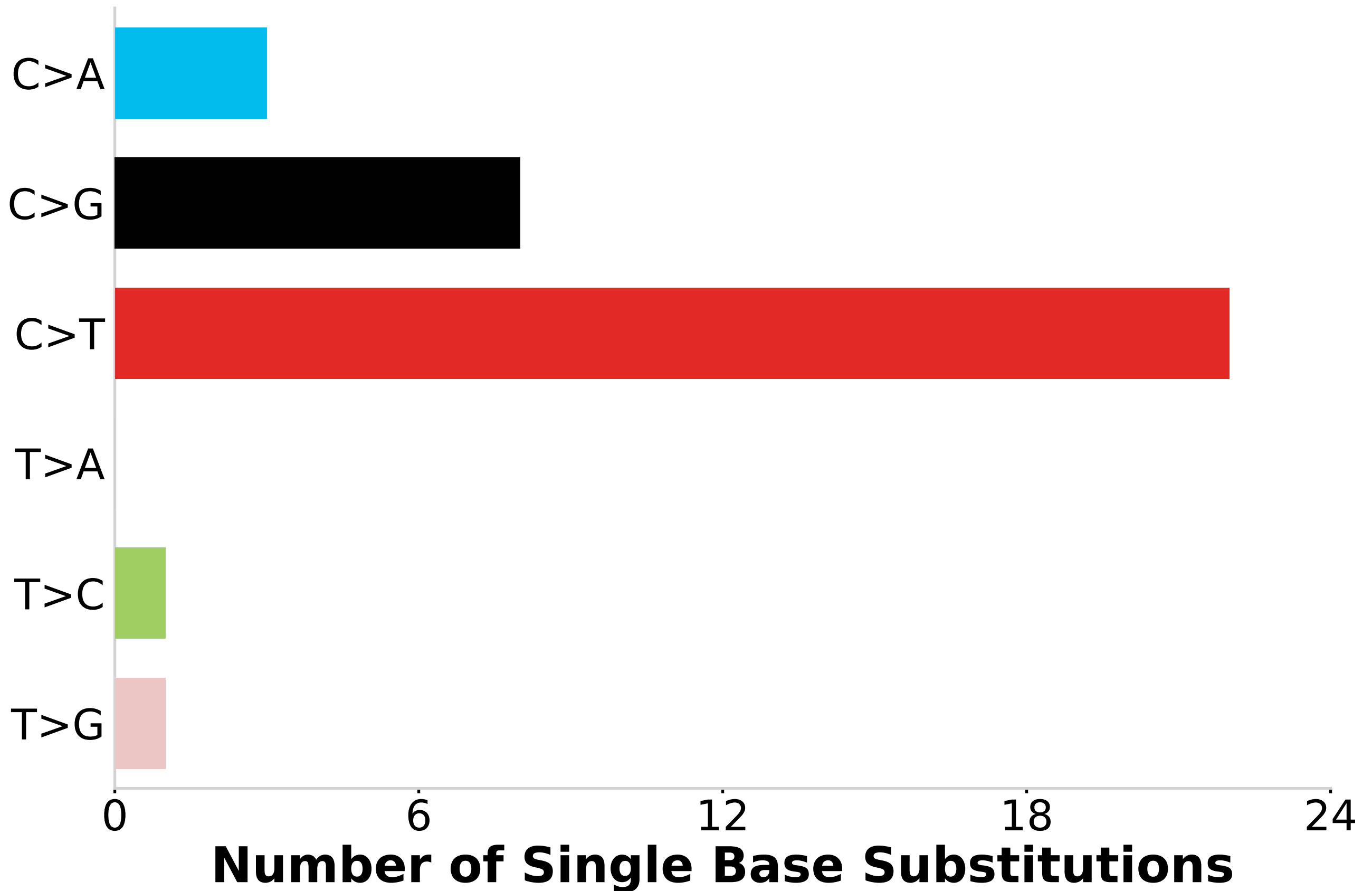
TCGA-CU-A3YL-01A-11D-A22Z-08: 64 subs



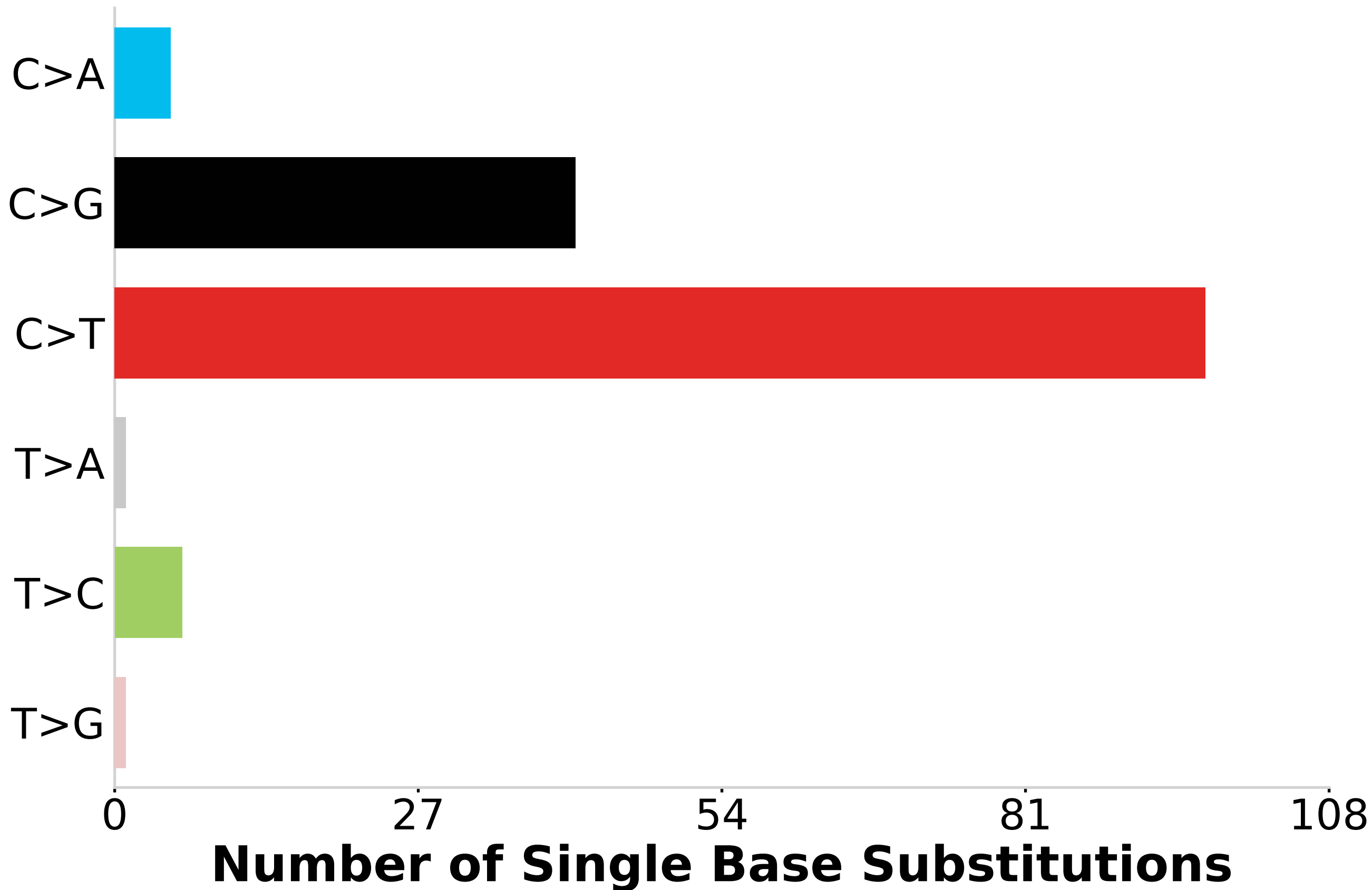
TCGA-CU-A5W6-01A-11D-A289-08: 67 subs



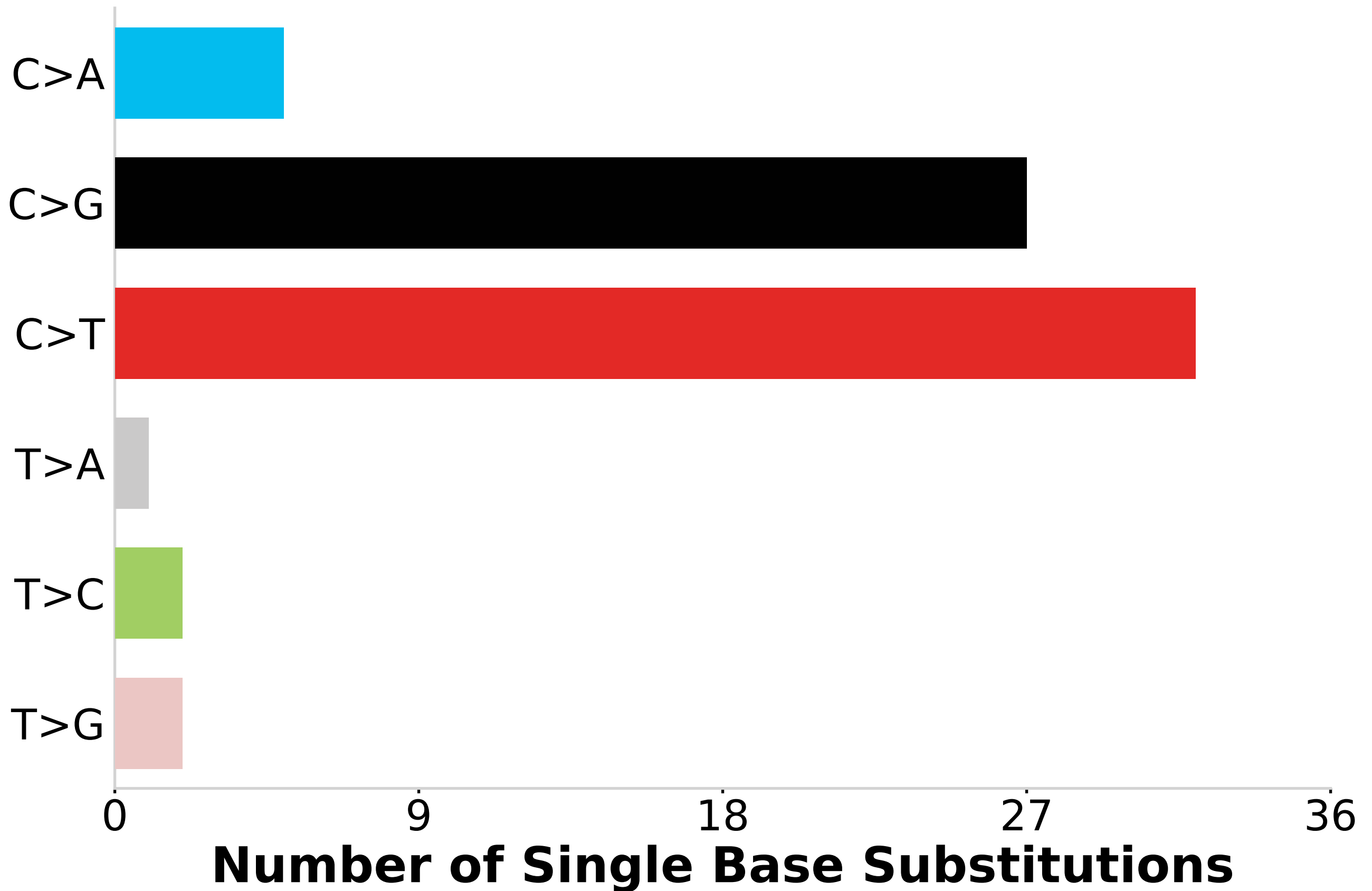
TCGA-CU-A72E-01A-12D-A339-08: 35 subs



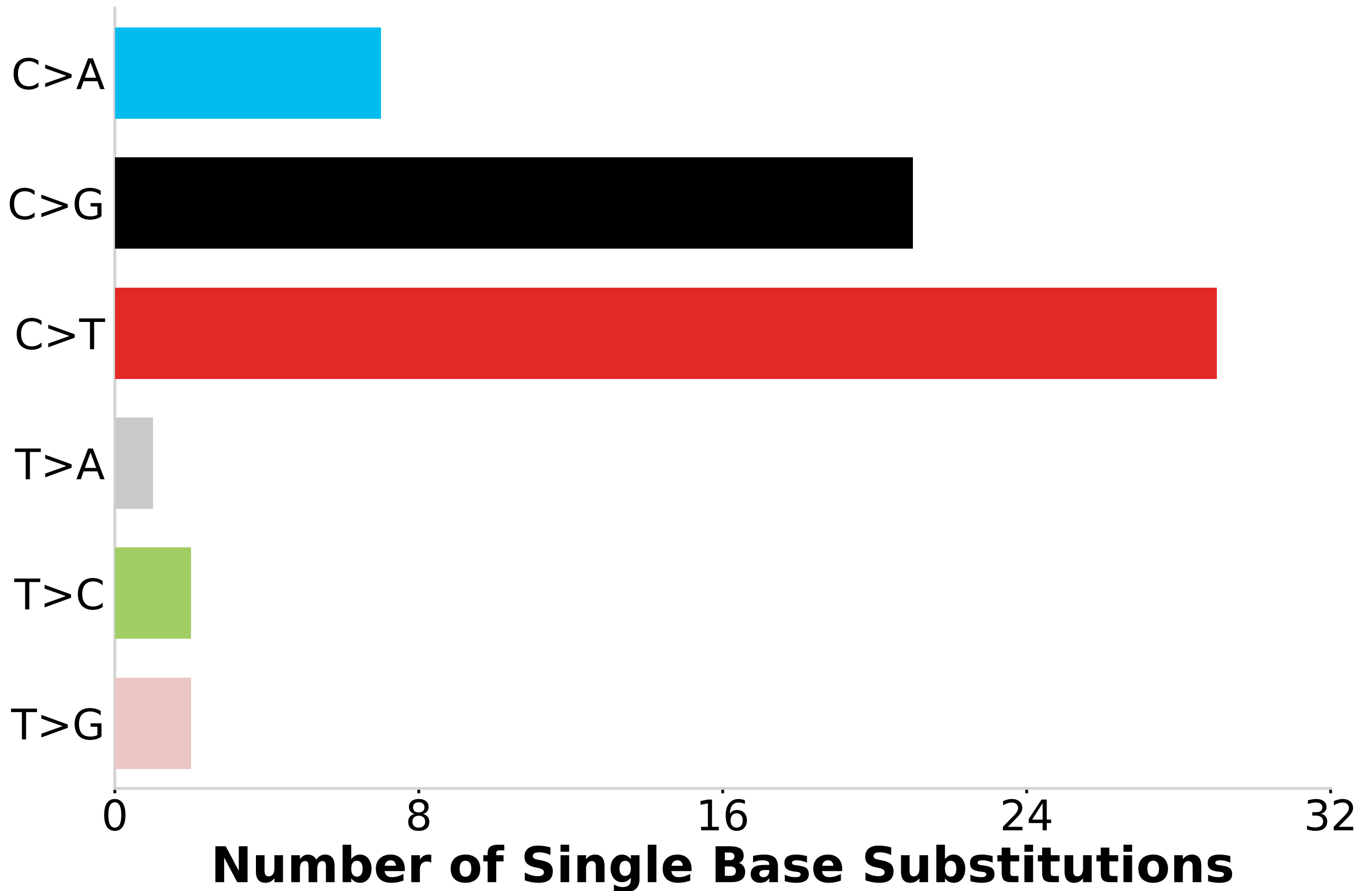
TCGA-DK-A1A3-01A-11D-A13W-08: 151 substitutions



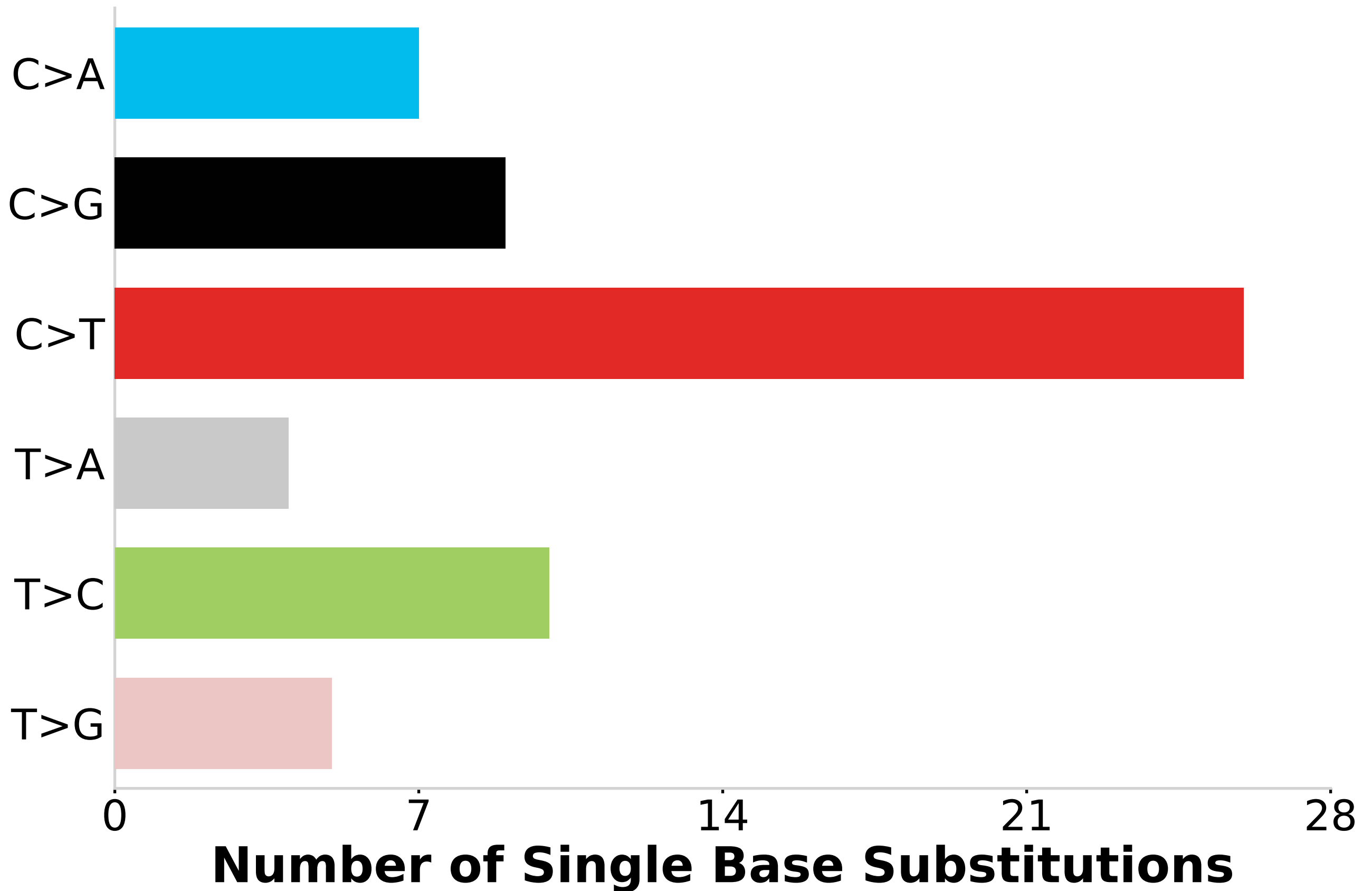
TCGA-DK-A1A5-01A-11D-A13W-08: 69 subs



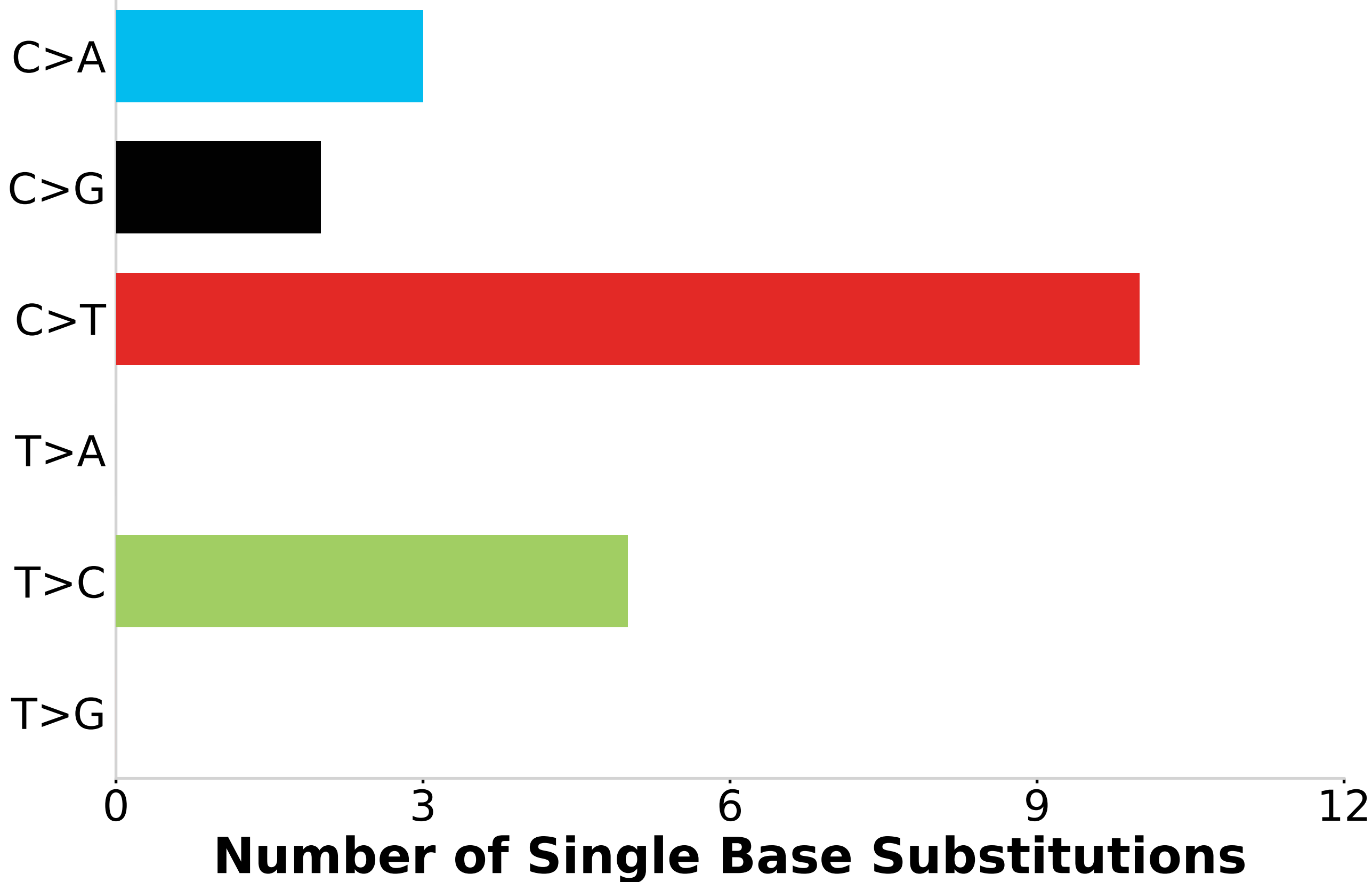
TCGA-DK-A1A6-01A-11D-A13W-08: 62 subs



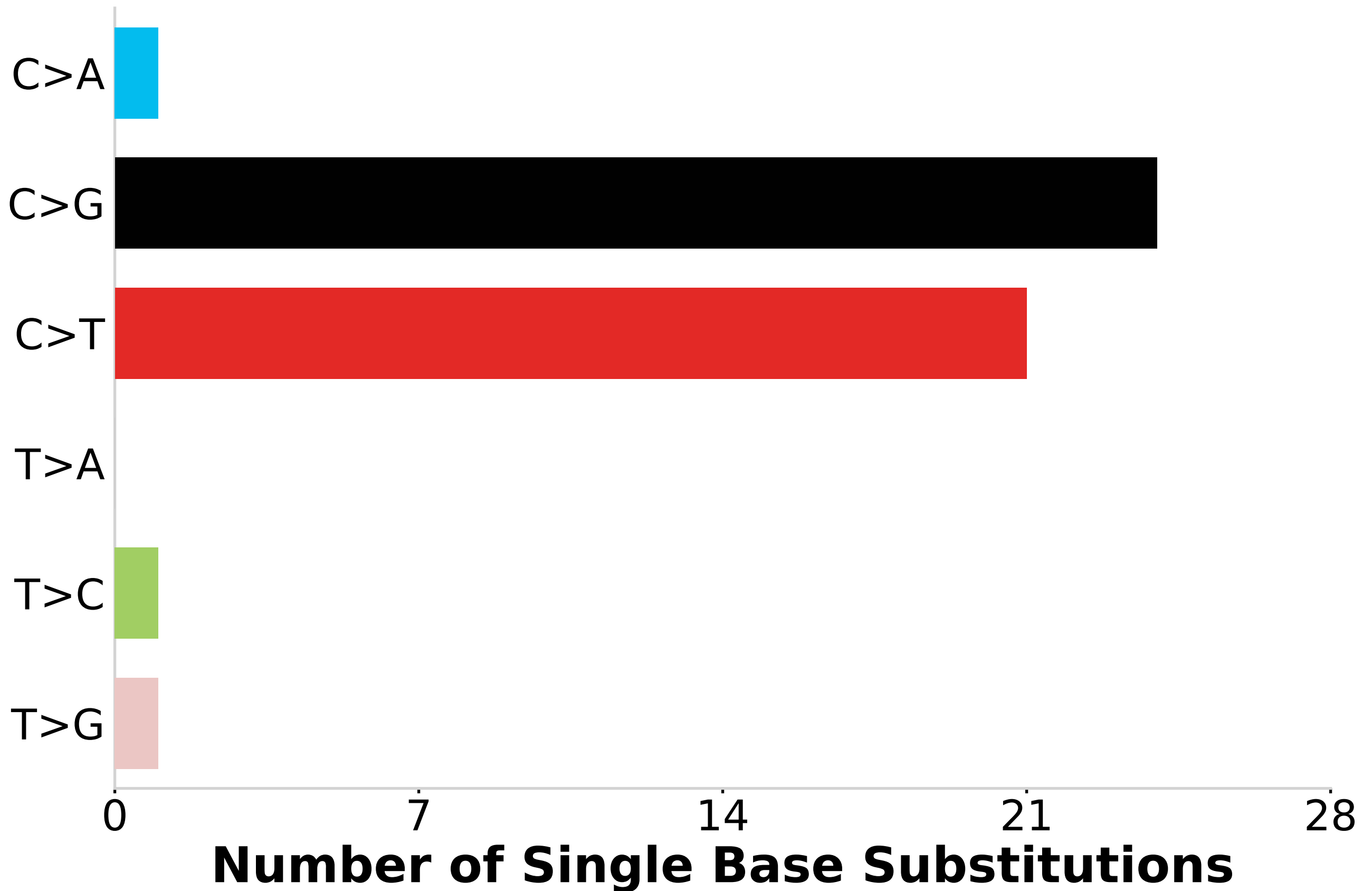
TCGA-DK-A1A7-01A-11D-A13W-08: 61 subs



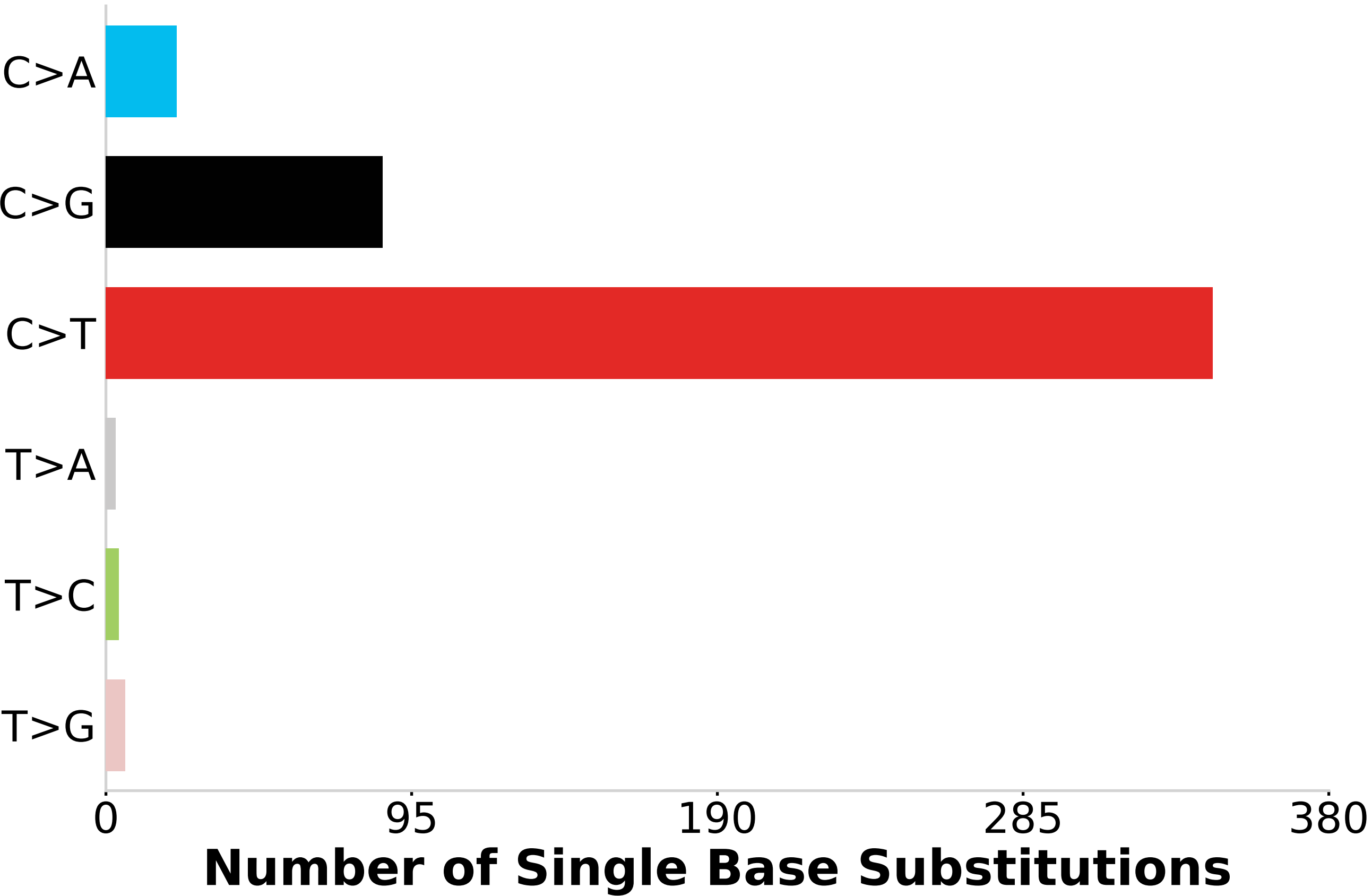
TCGA-DK-A1AA-01A-11D-A13W-08: 20 sub



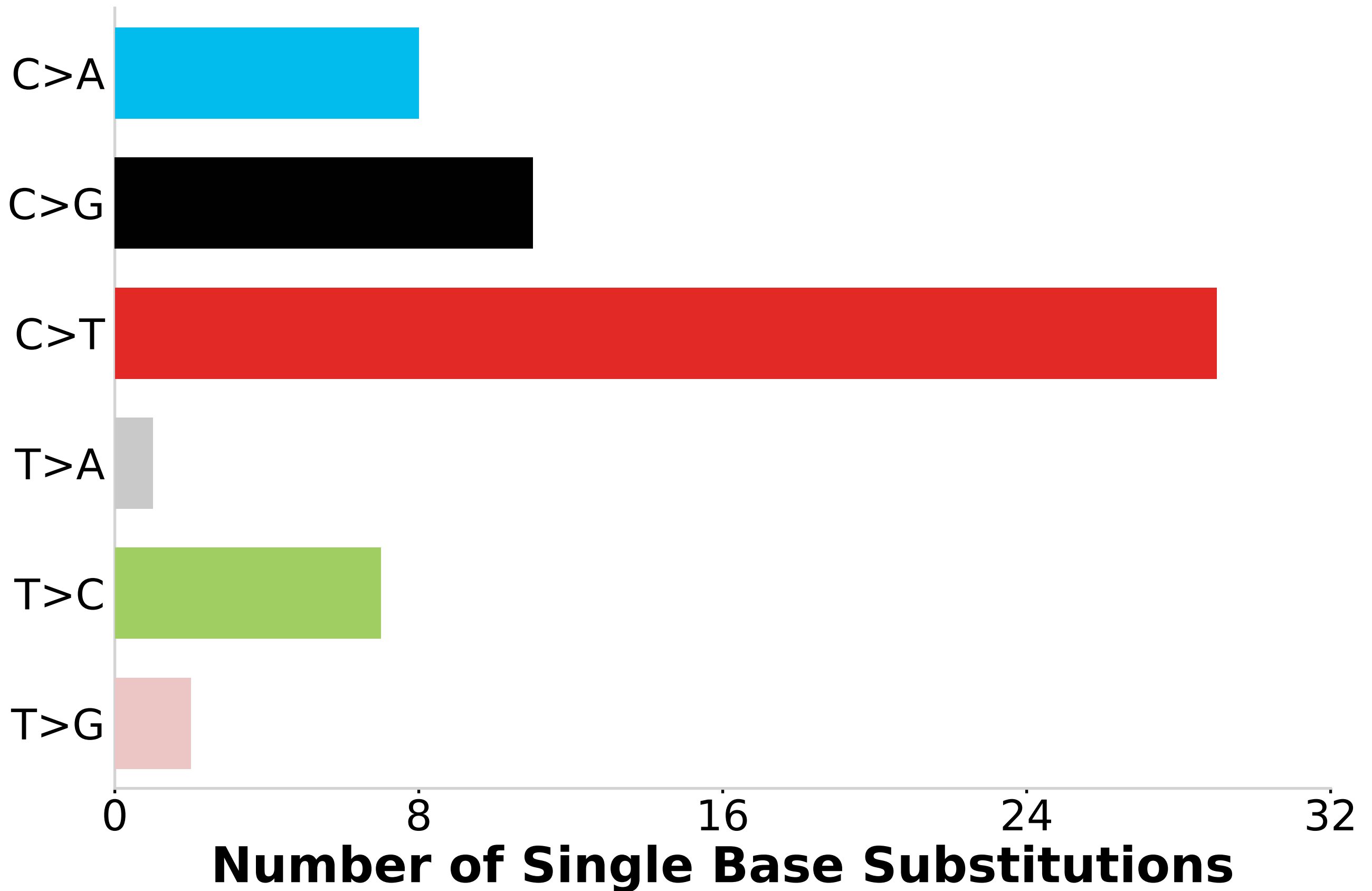
TCGA-DK-A1AB-01A-11D-A13W-08: 48 sub



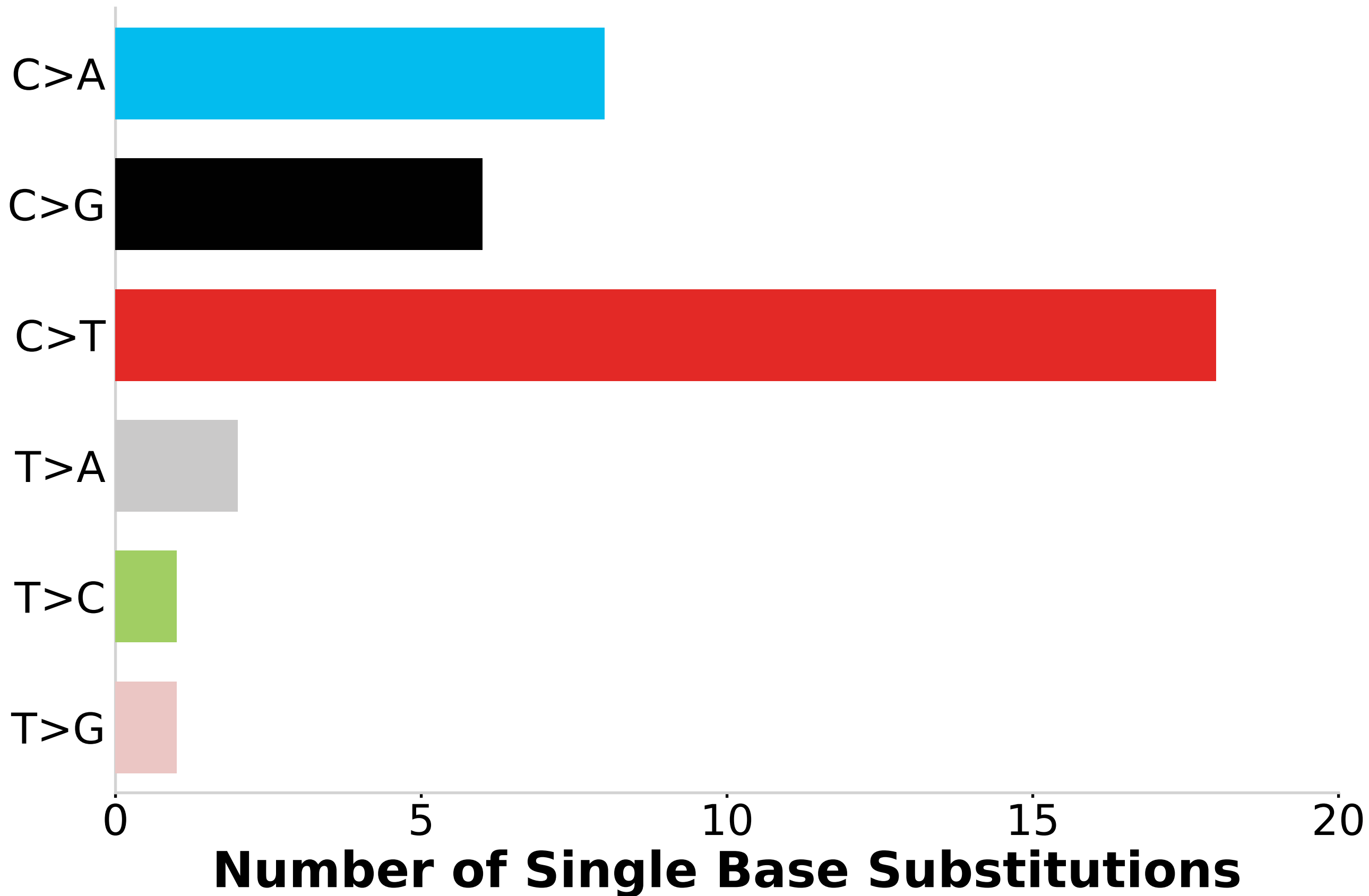
TCGA-DK-A1AC-01A-11D-A13W-08: 465 su



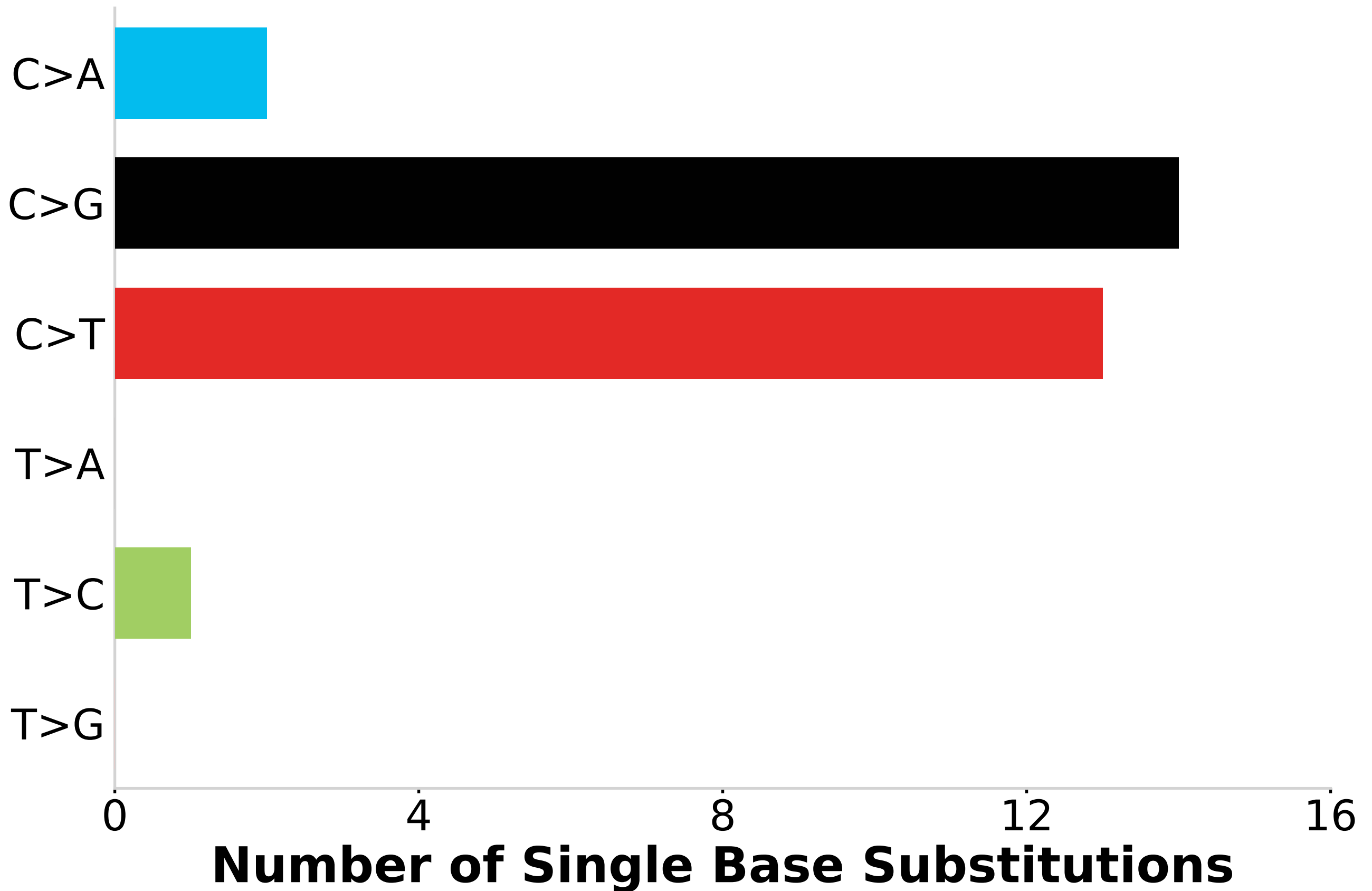
TCGA-DK-A1AD-01A-11D-A13W-08: 58 sub



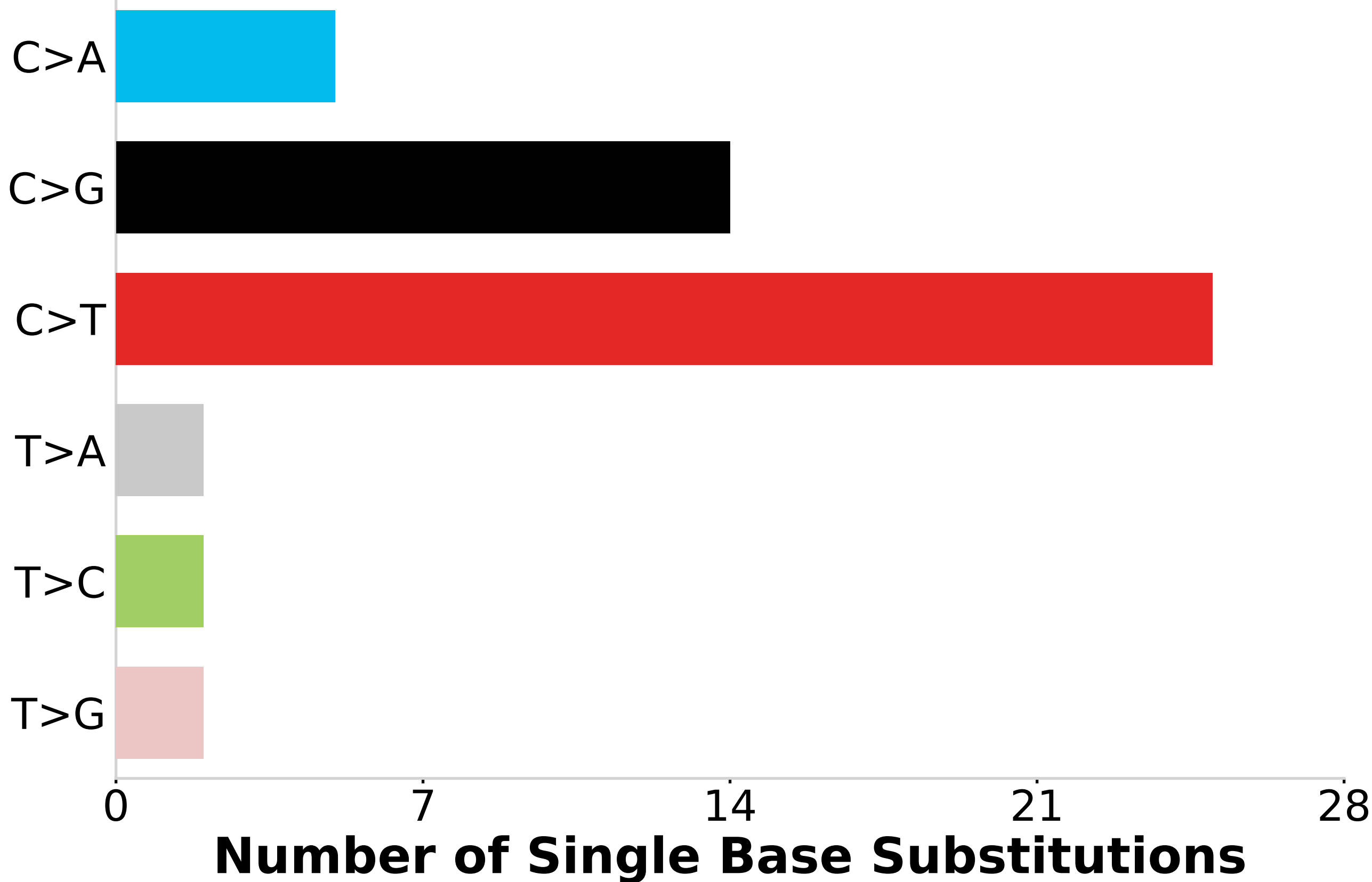
TCGA-DK-A1AE-01A-11D-A13W-08: 36 subs



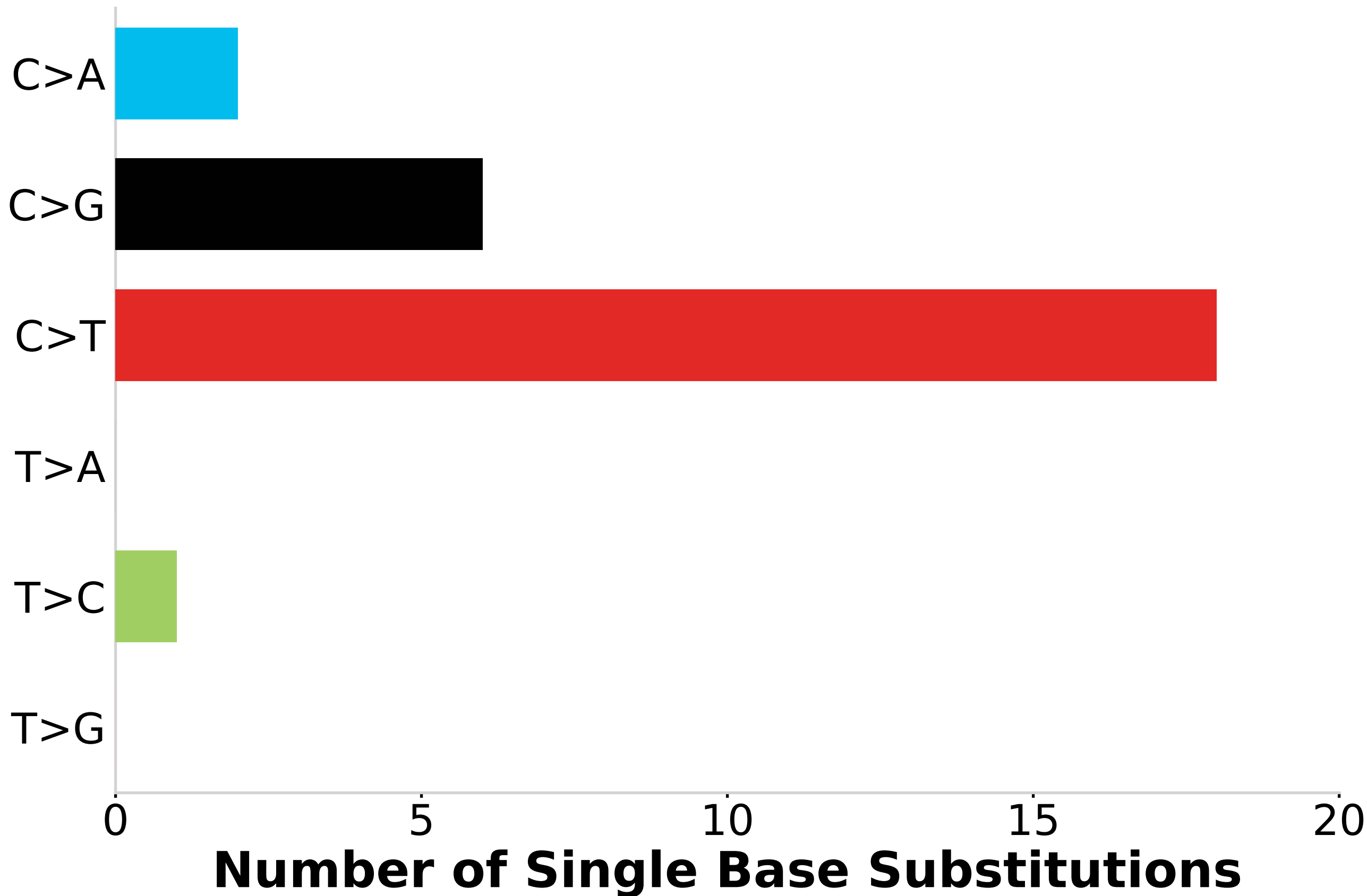
TCGA-DK-A1AF-01A-11D-A13W-08: 30 subs



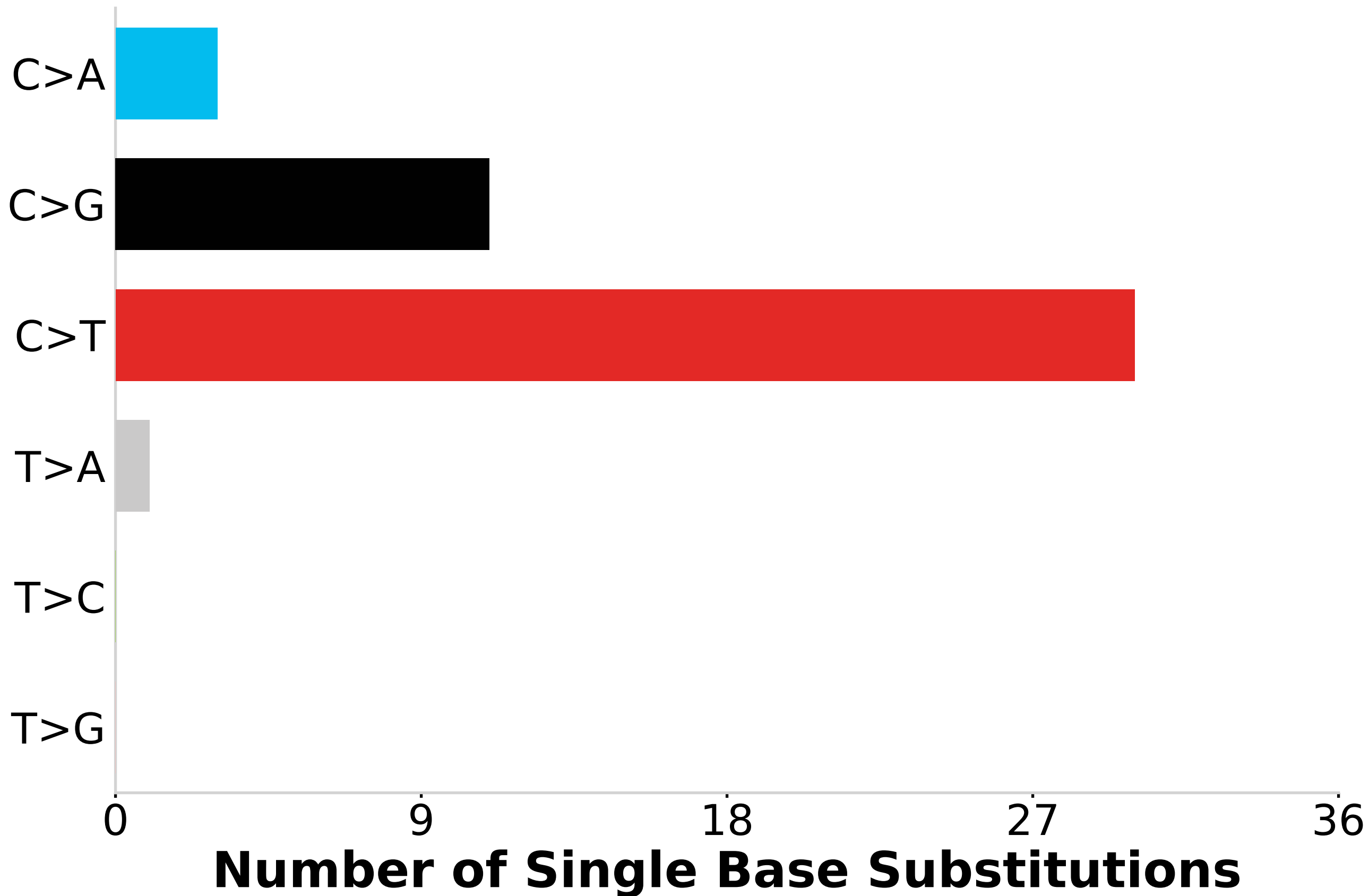
TCGA-DK-A1AG-01A-11D-A13W-08: 50 sub



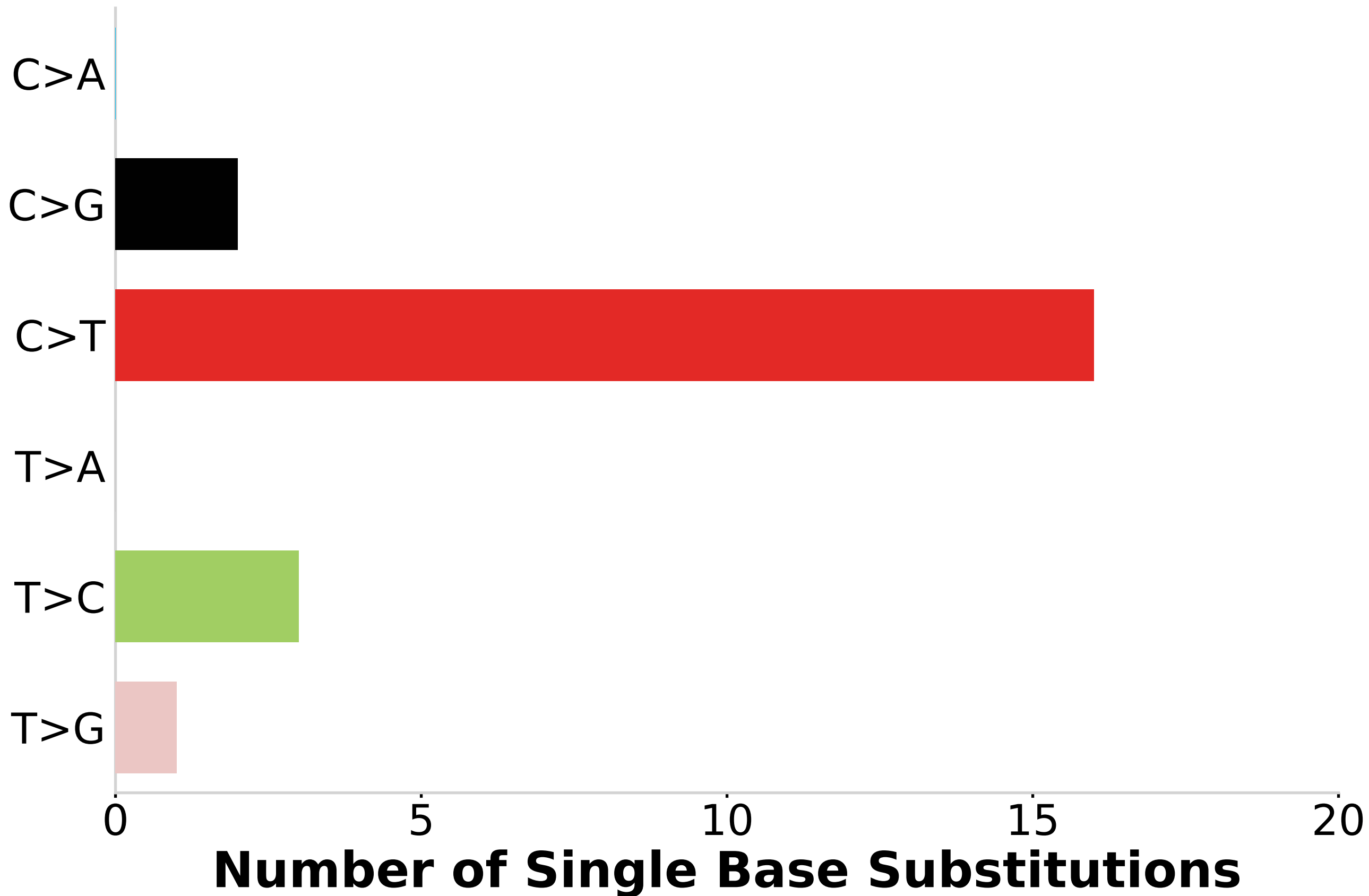
TCGA-DK-A2HX-01A-12D-A18F-08: 27 subs



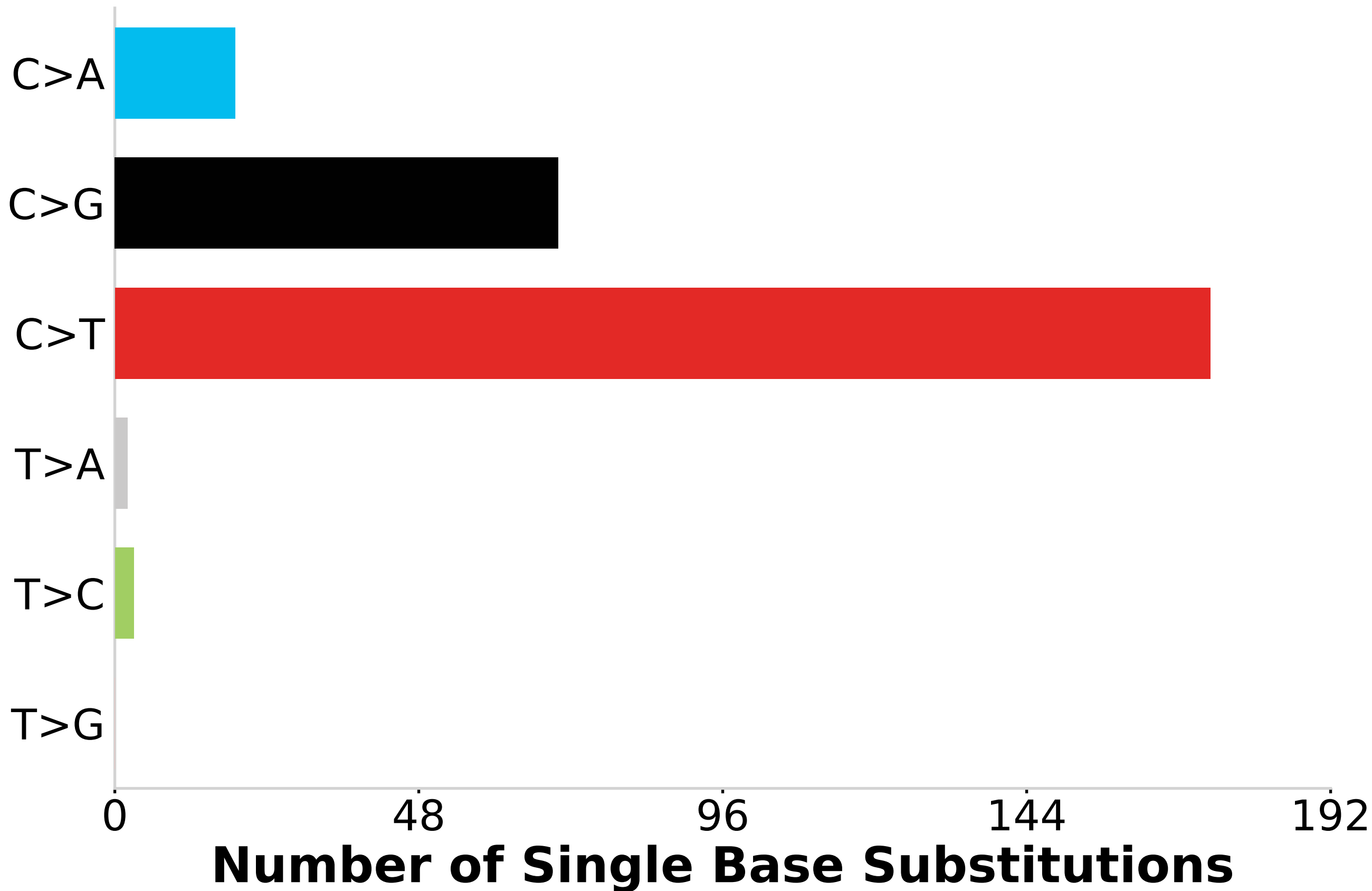
TCGA-DK-A2I1-01A-11D-A17V-08: 45 subs



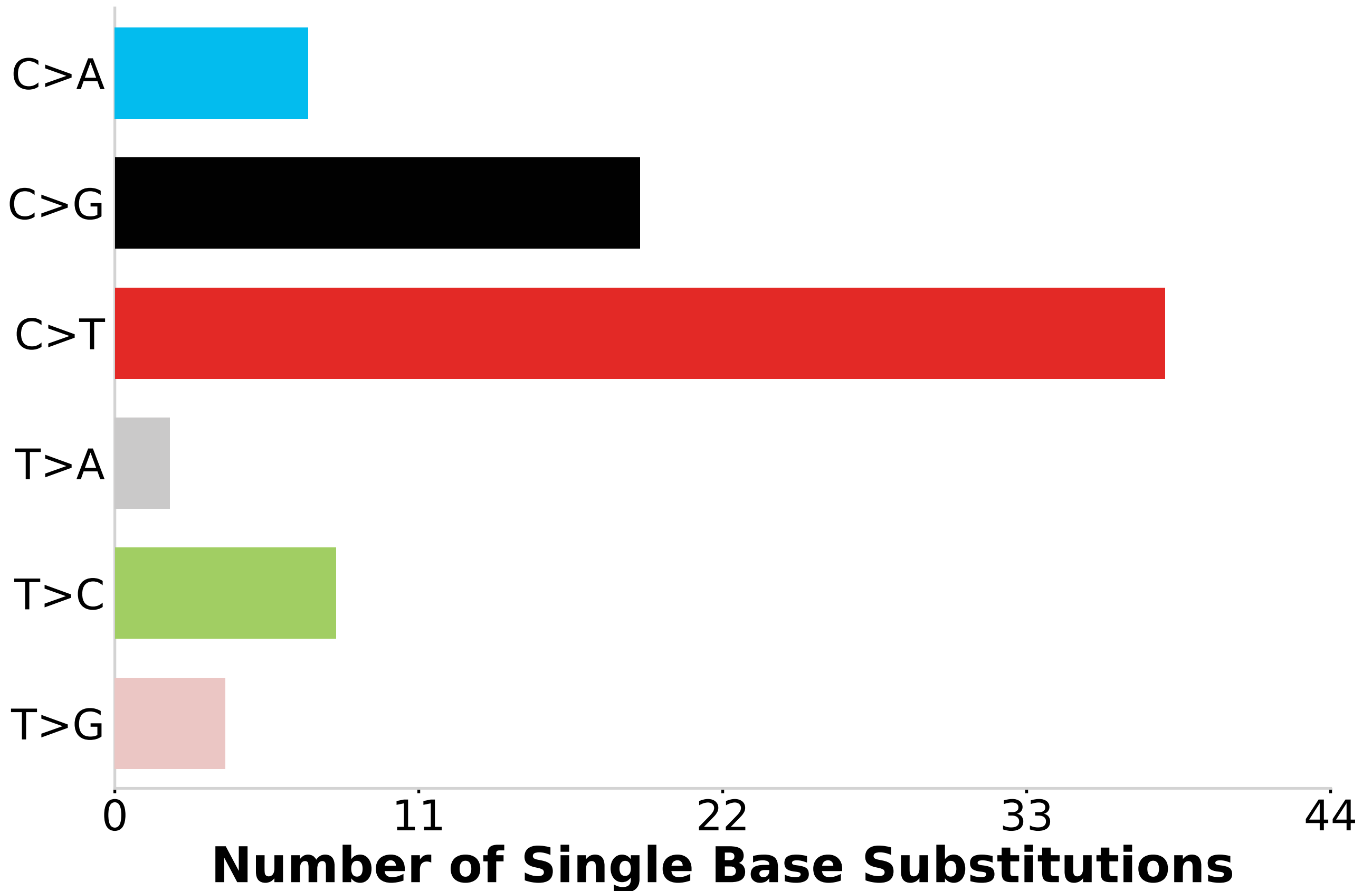
TCGA-DK-A2I2-01A-11D-A17V-08: 22 subs



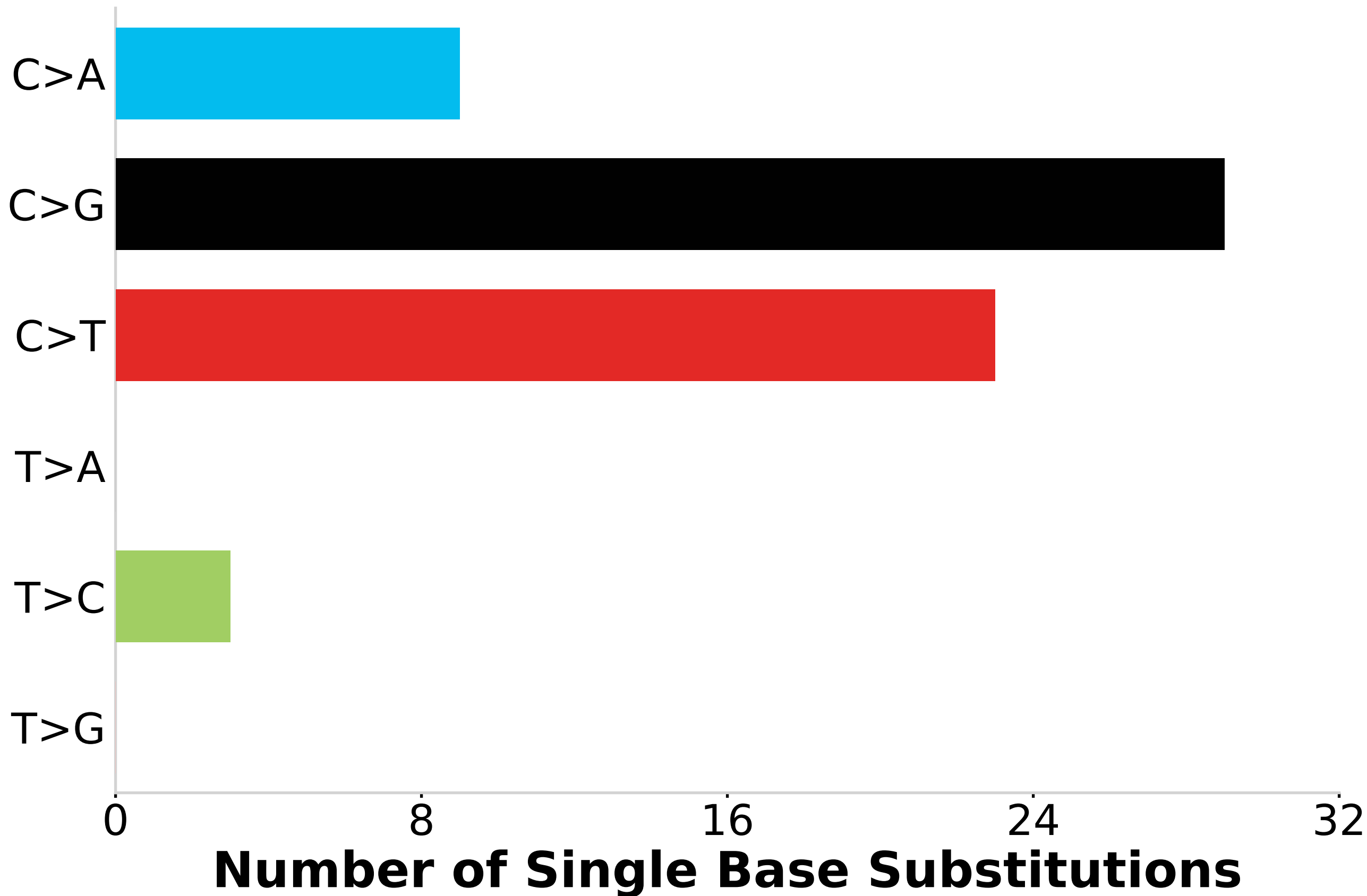
TCGA-DK-A2I4-01A-11D-A21A-08: 267 subs



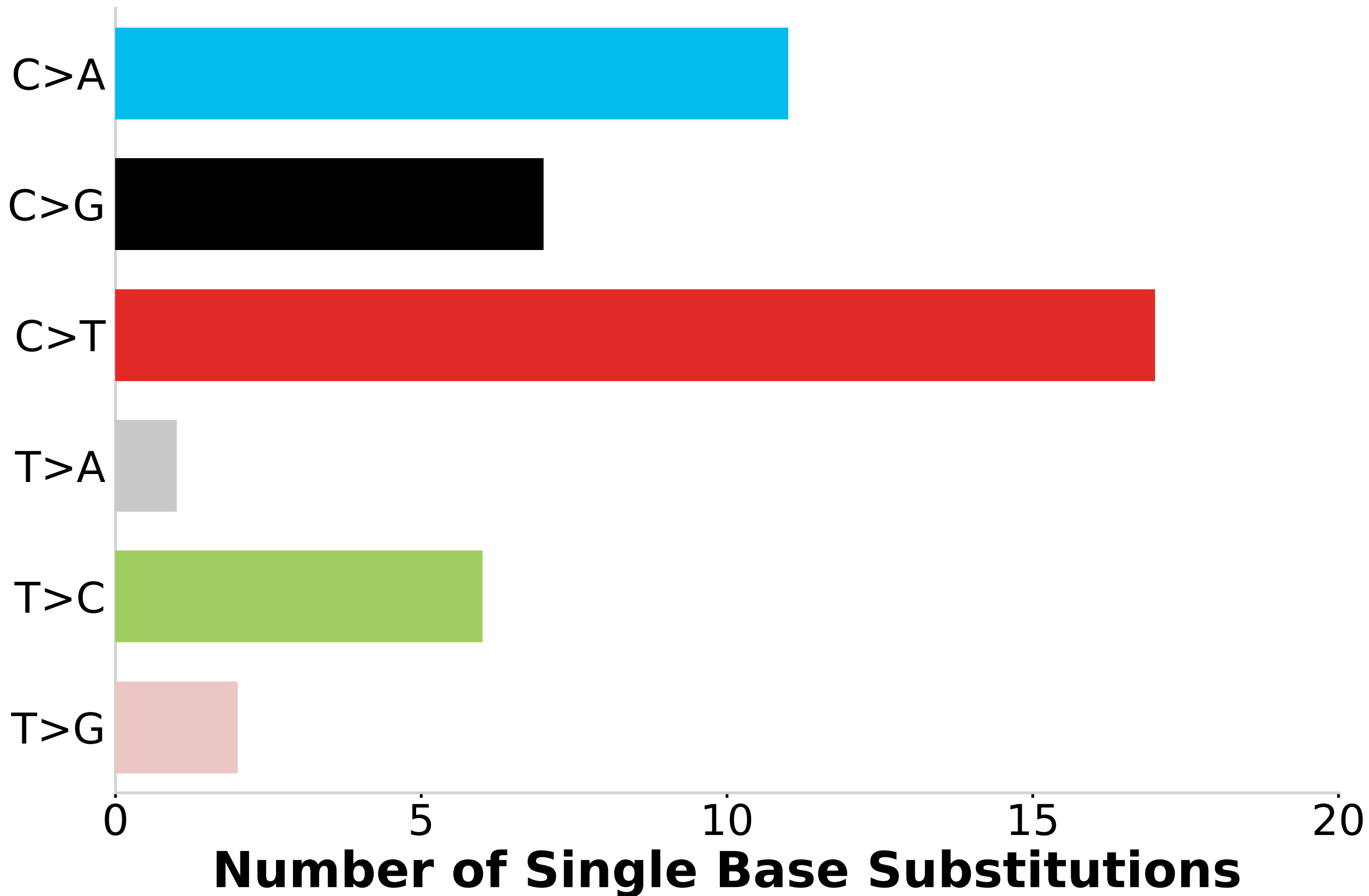
TCGA-DK-A2I6-01A-12D-A18F-08: 78 subs



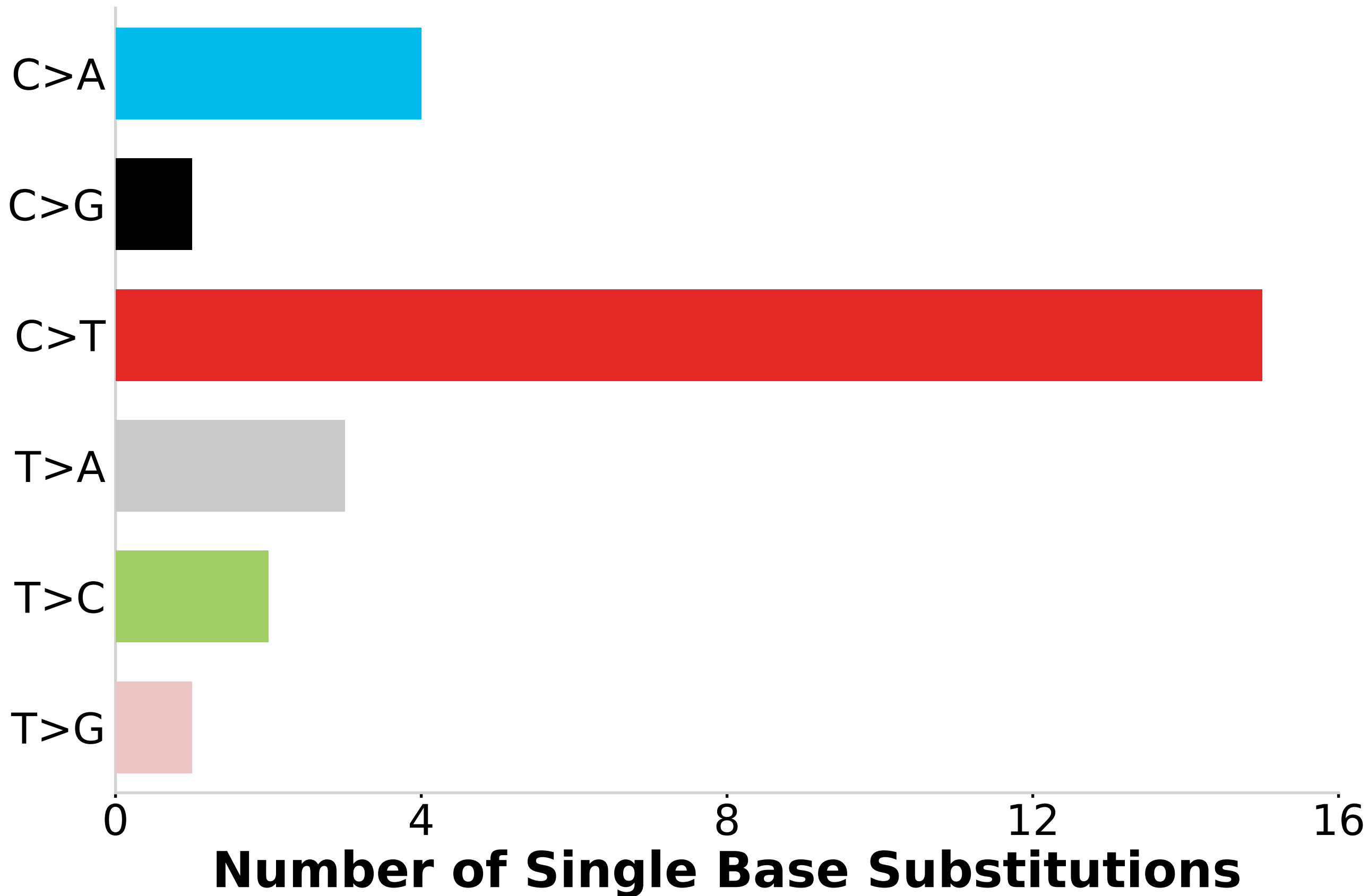
TCGA-DK-A3IK-01A-32D-A21A-08: 64 subs



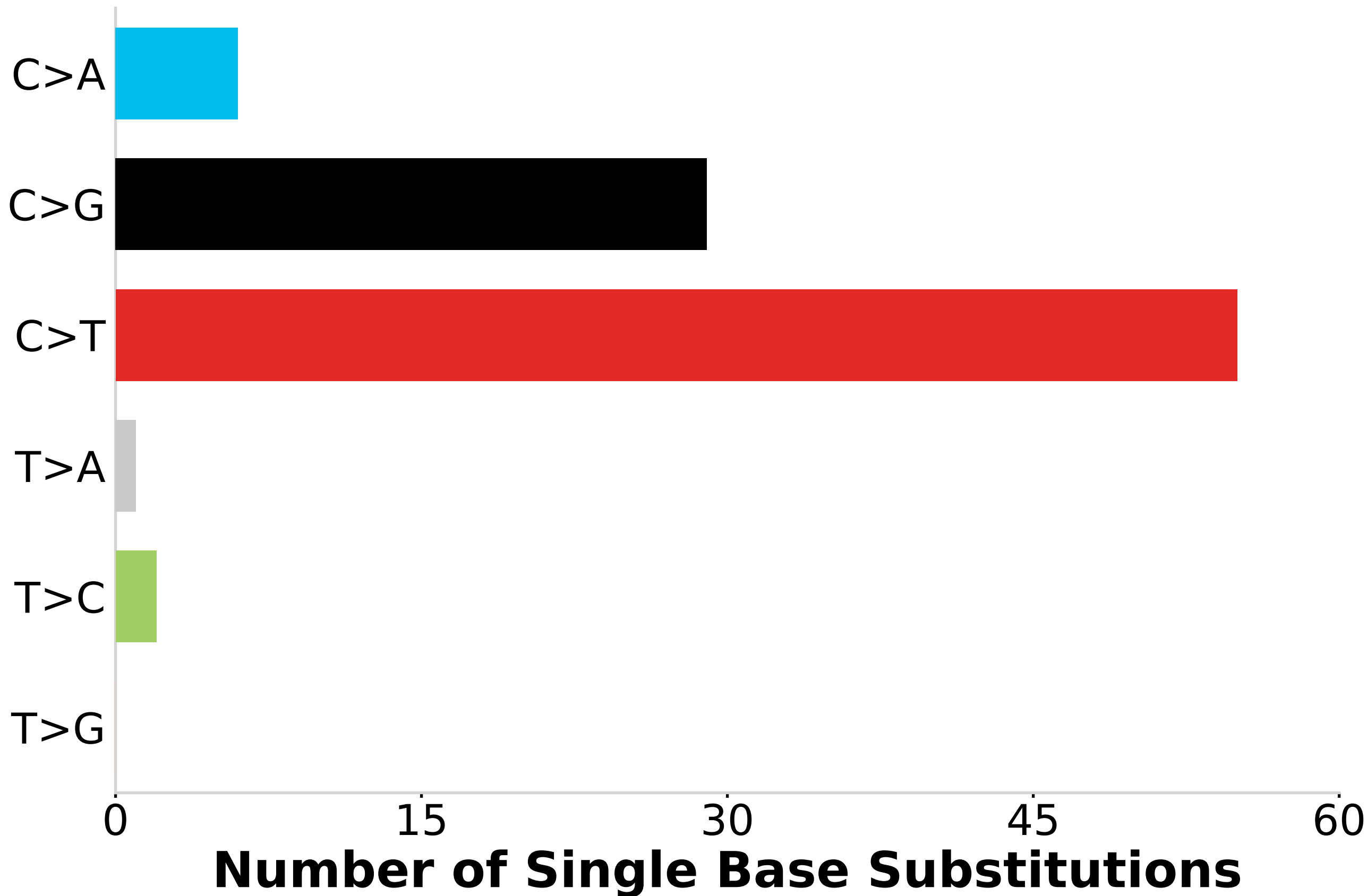
TCGA-DK-A3IL-01A-11D-A20D-08: 44 subs



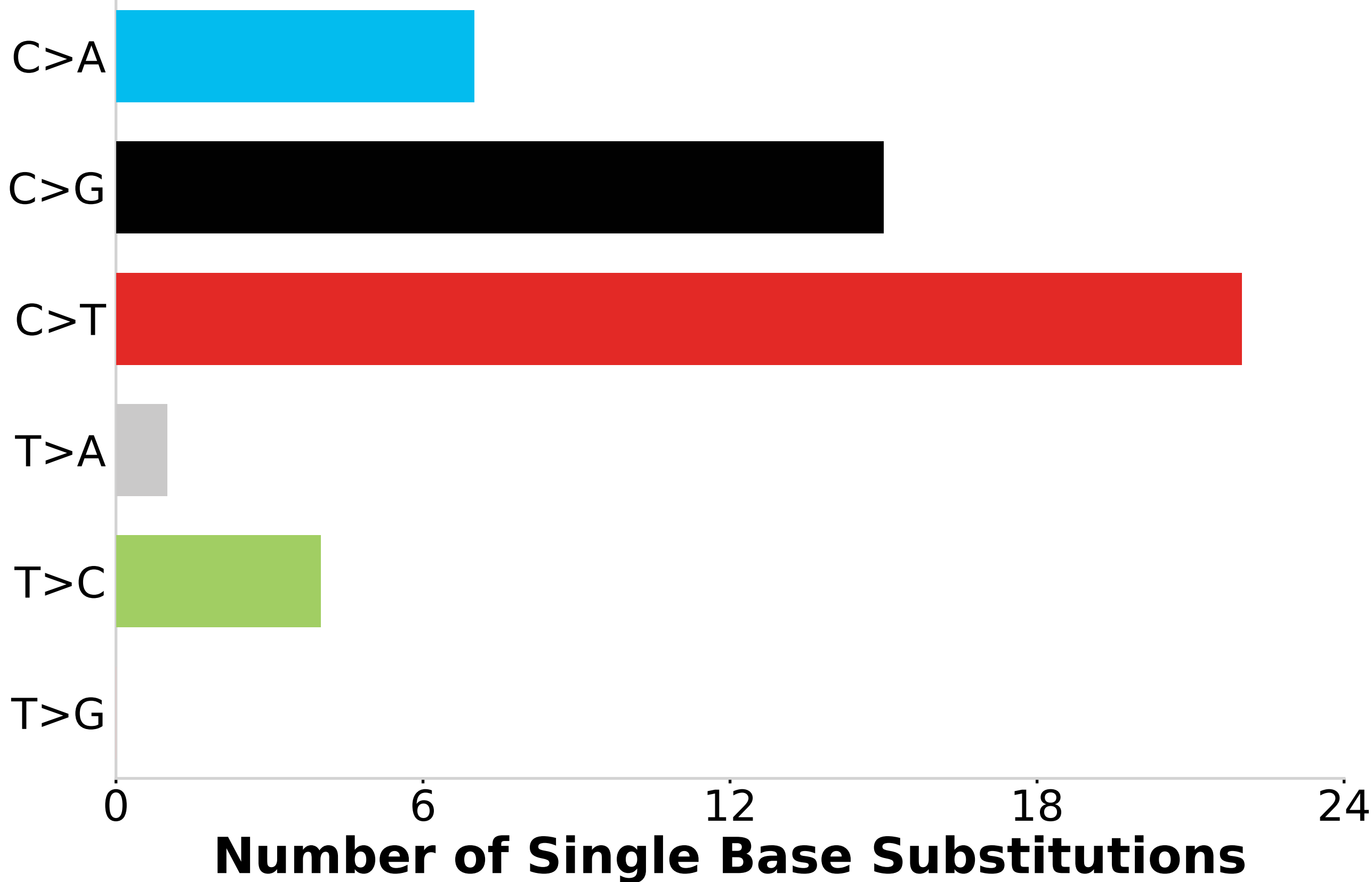
TCGA-DK-A3IM-01A-11D-A20D-08: 26 subs



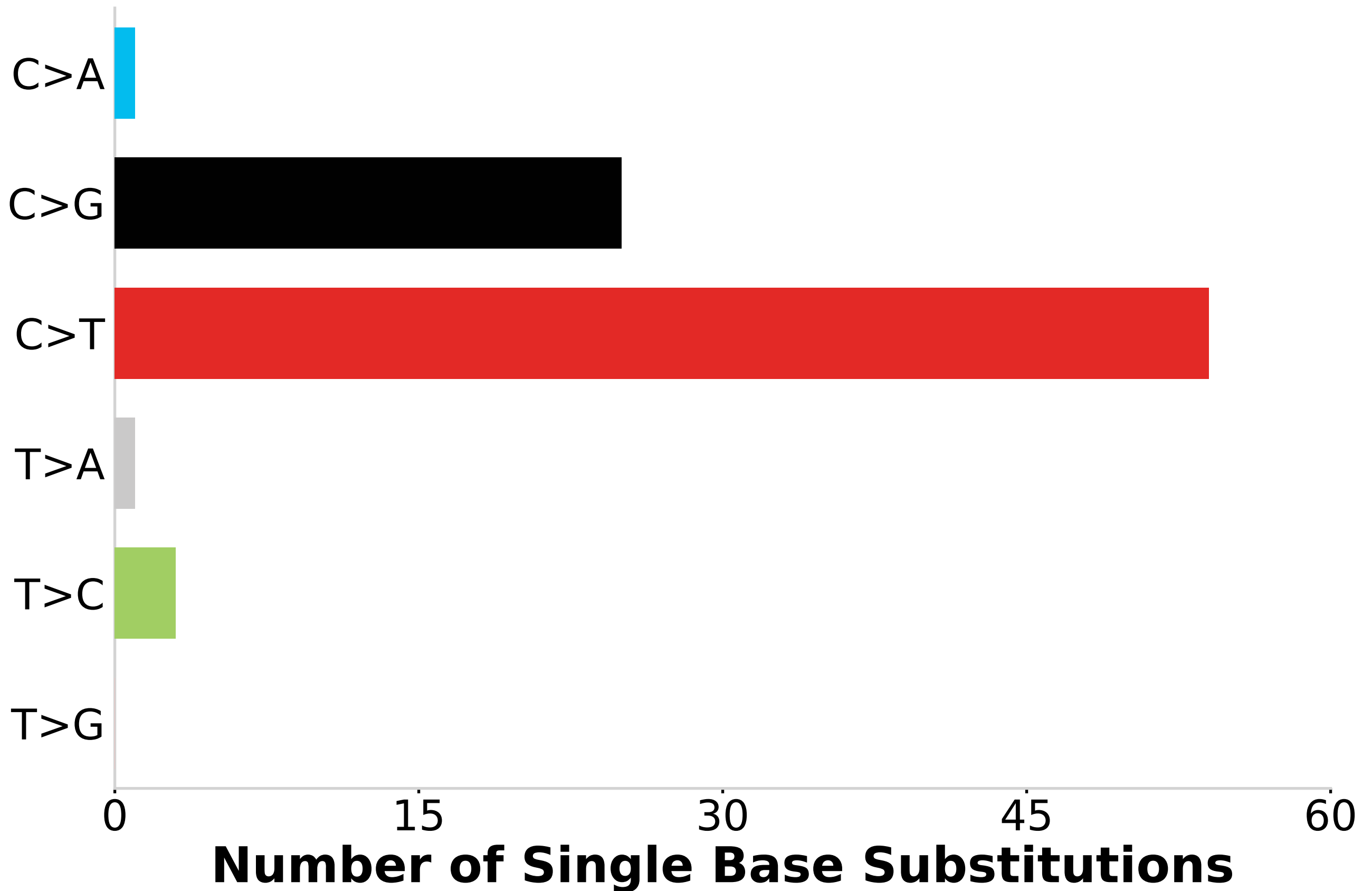
TCGA-DK-A3IN-01A-11D-A20D-08: 93 subs



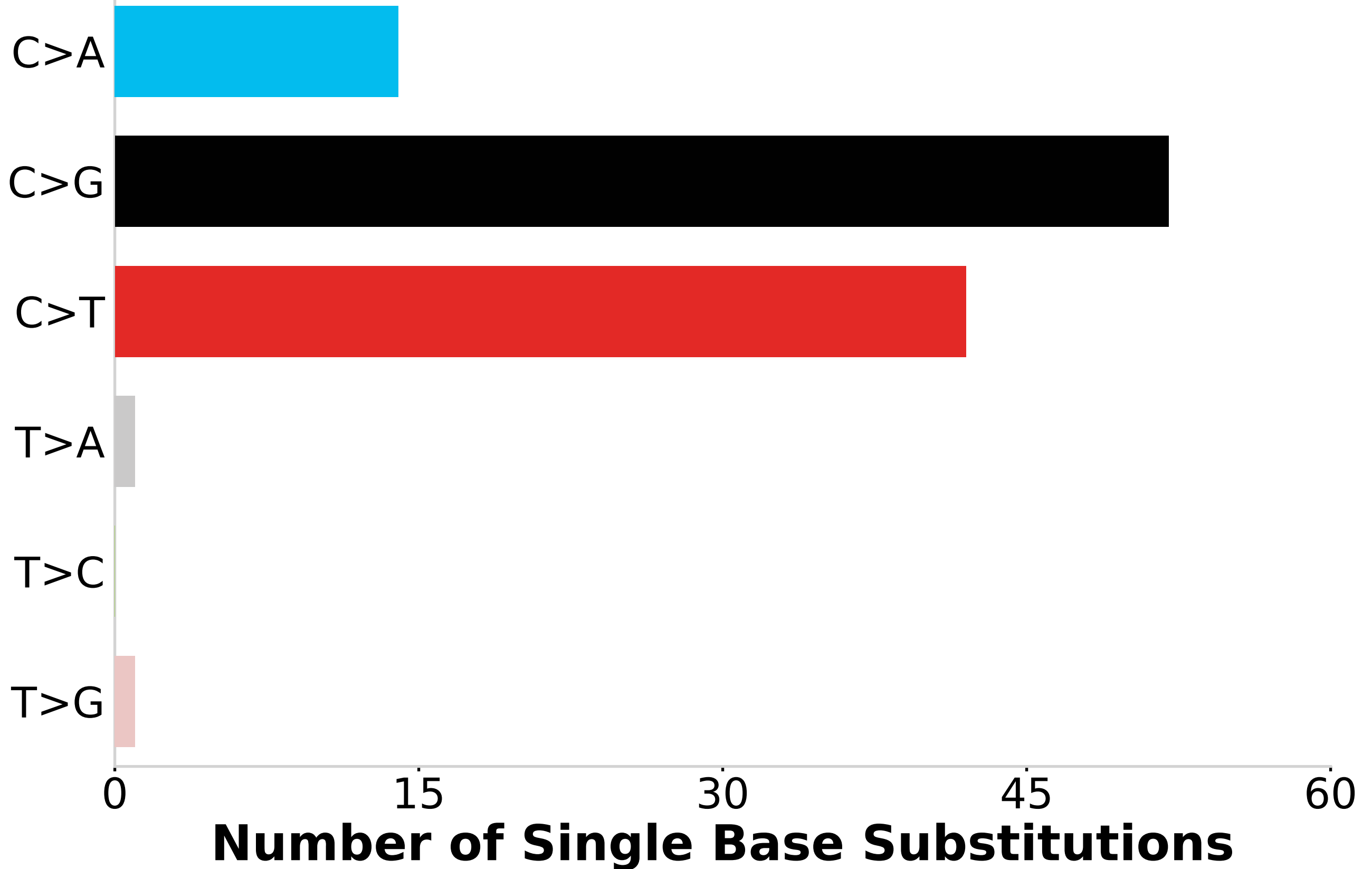
TCGA-DK-A3IQ-01A-31D-A20D-08: 49 subs



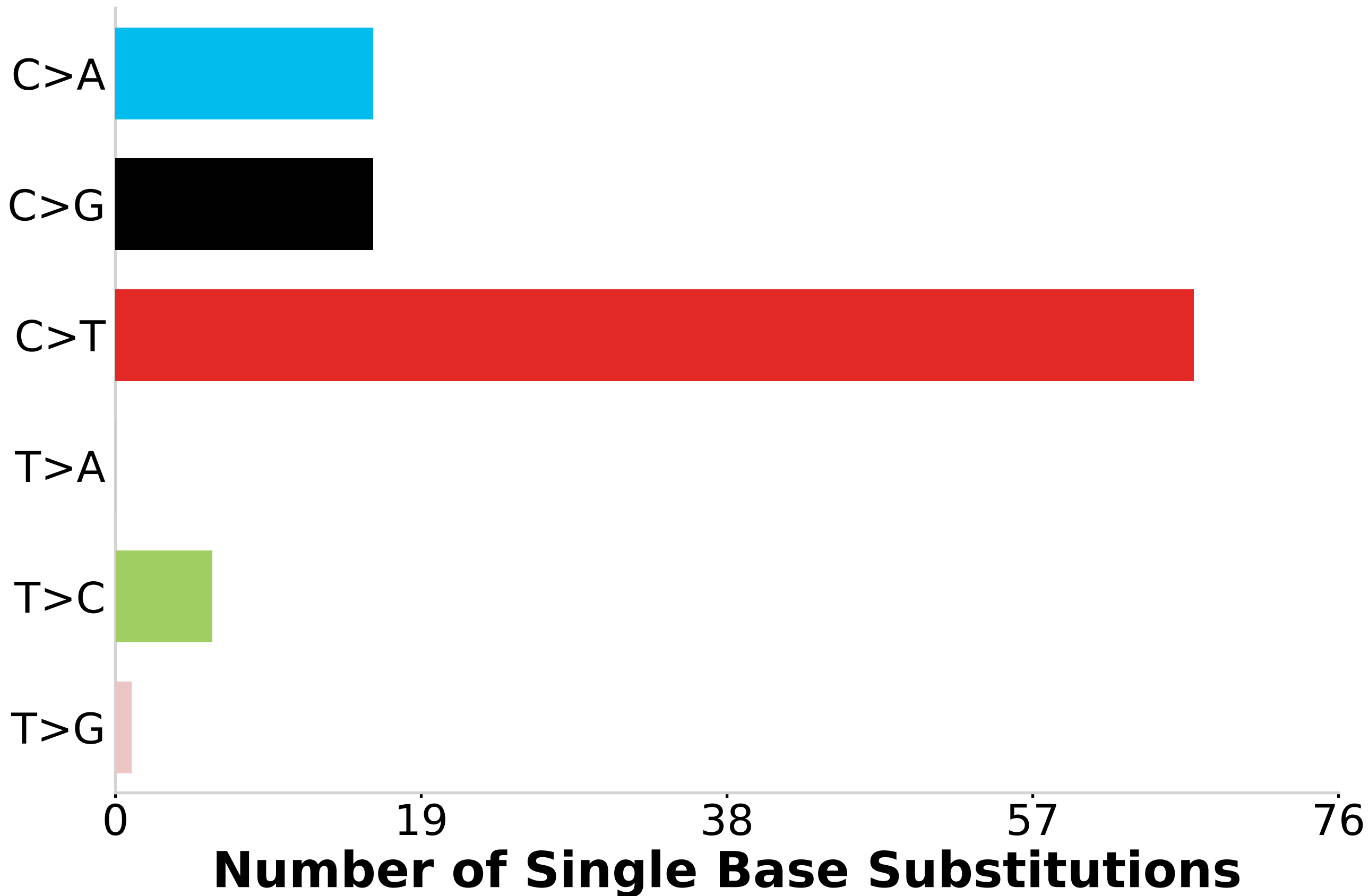
TCGA-DK-A3IS-01A-21D-A21A-08: 84 subs



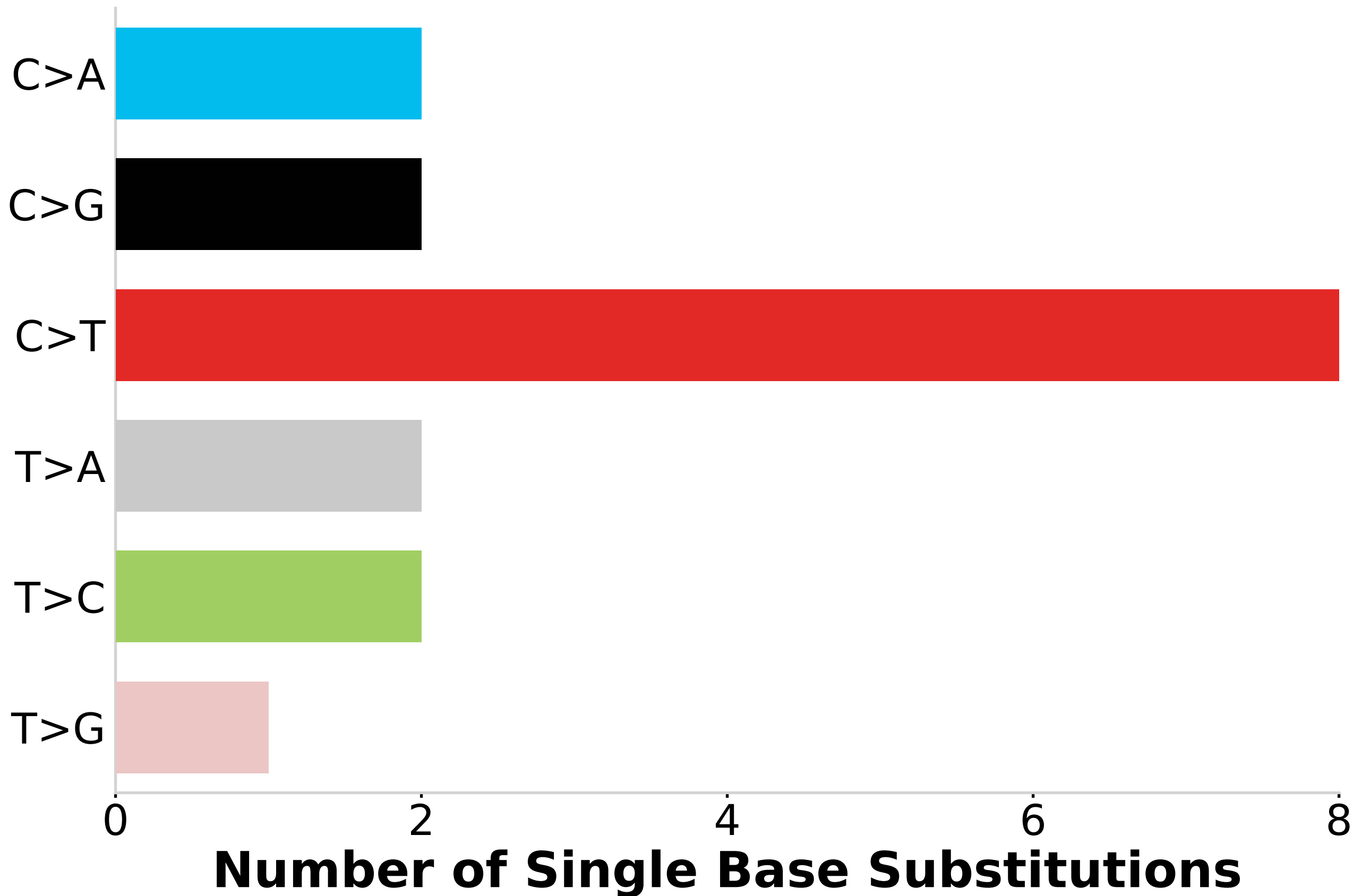
TCGA-DK-A3IT-01A-31D-A20D-08: 110 subs



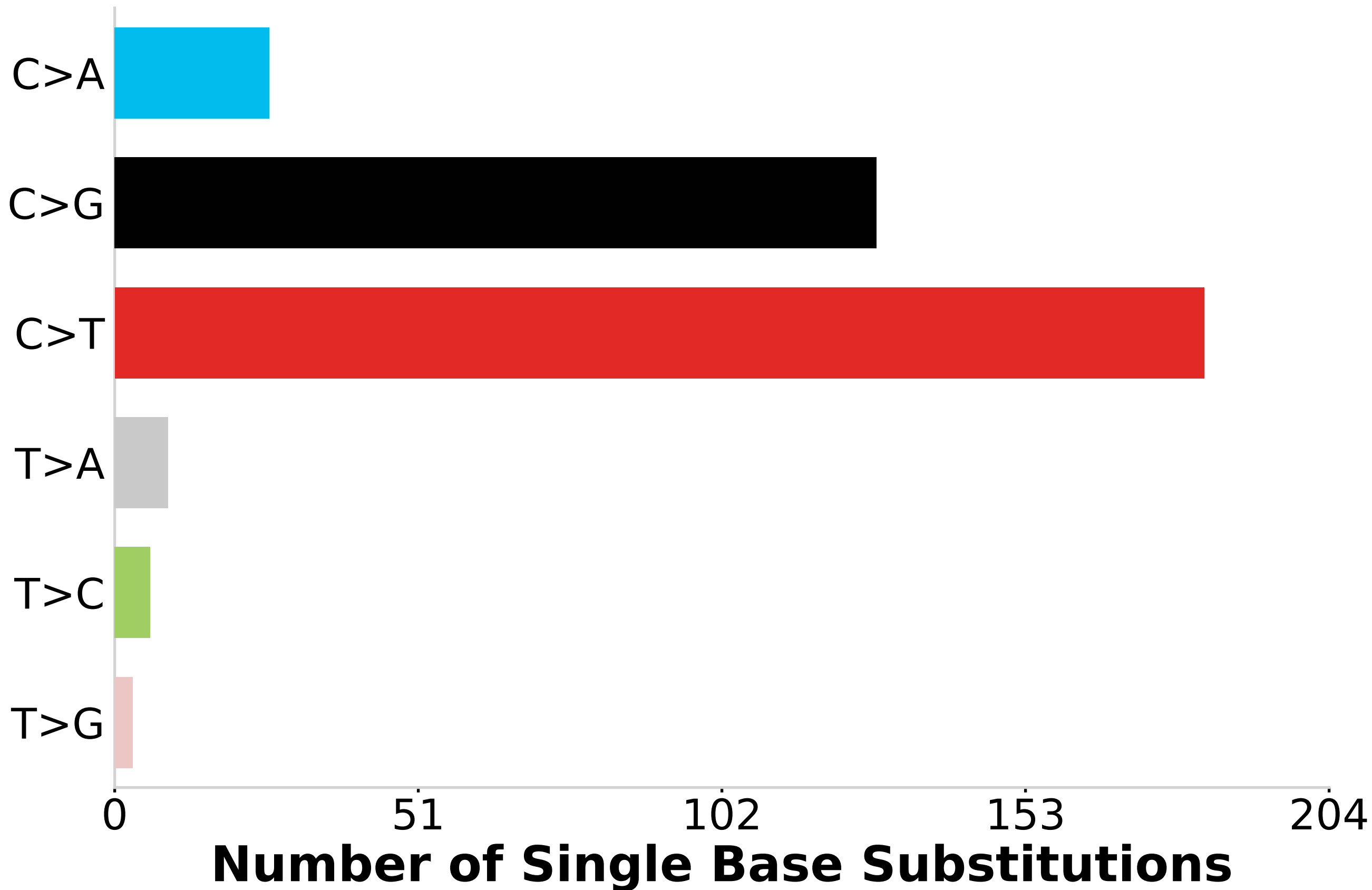
TCGA-DK-A3IU-01A-11D-A20D-08: 106 sub



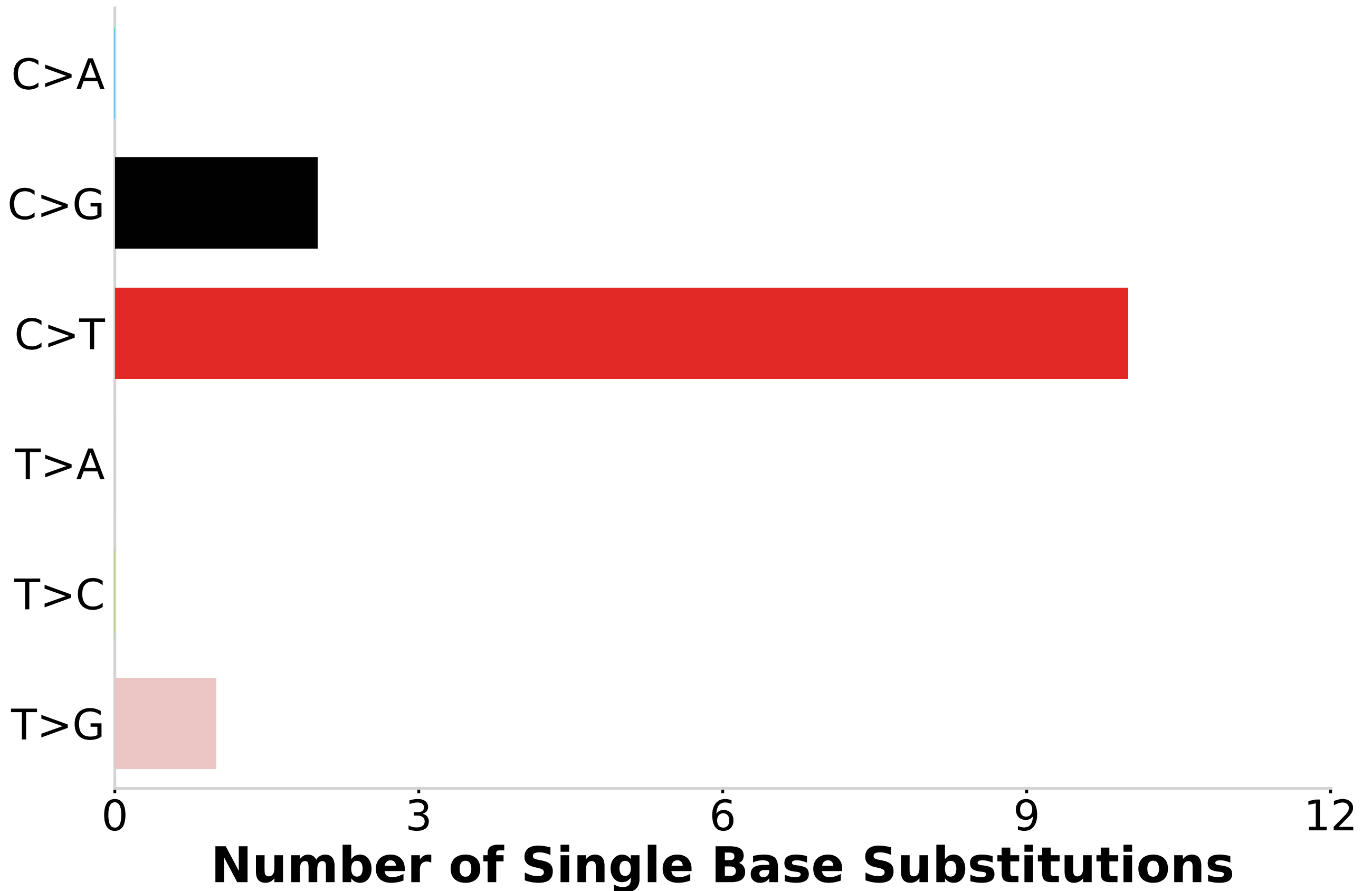
TCGA-DK-A3IV-01A-22D-A21A-08: 17 subs



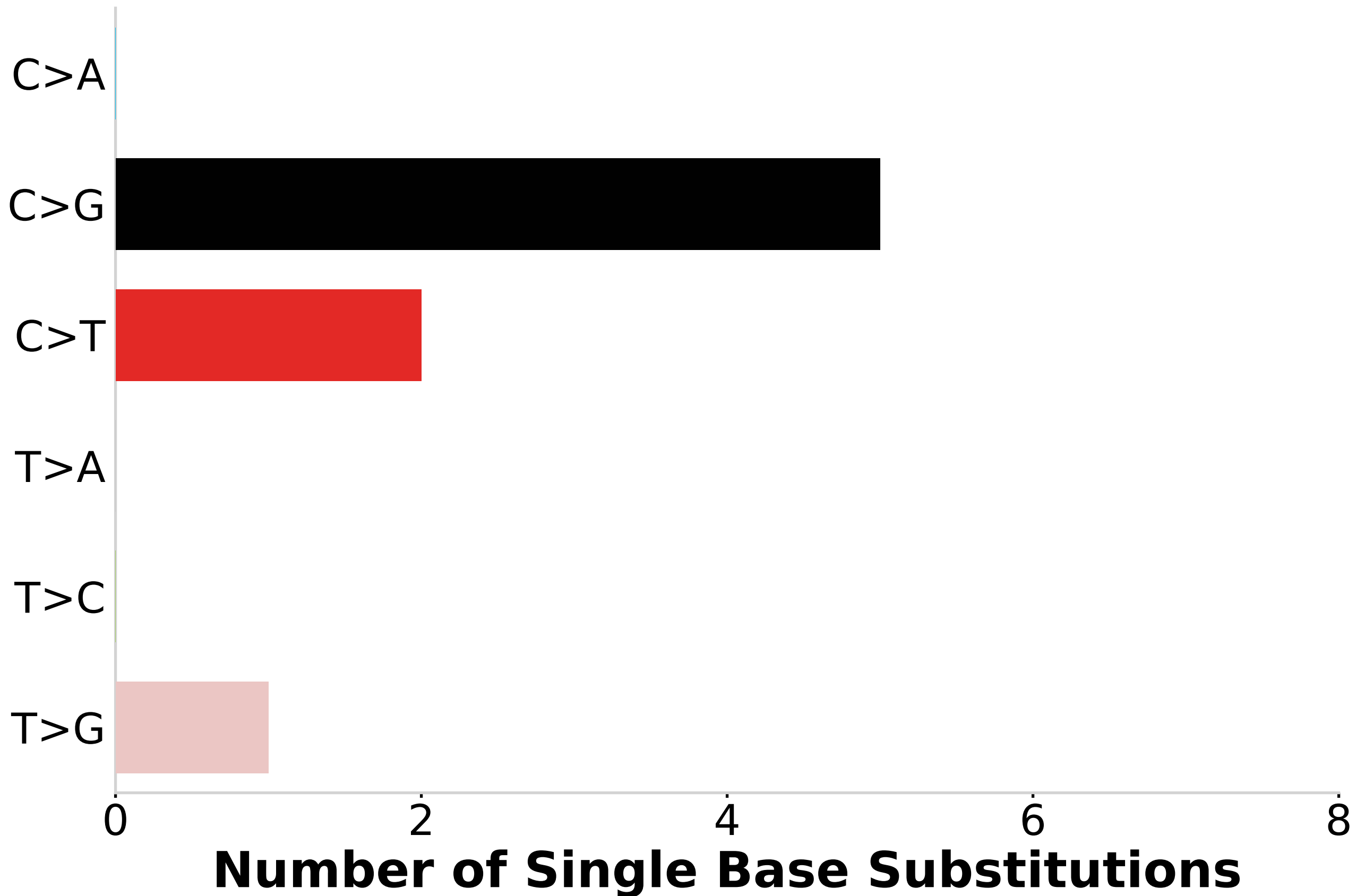
TCGA-DK-A3WW-01A-22D-A23M-08: 355 s



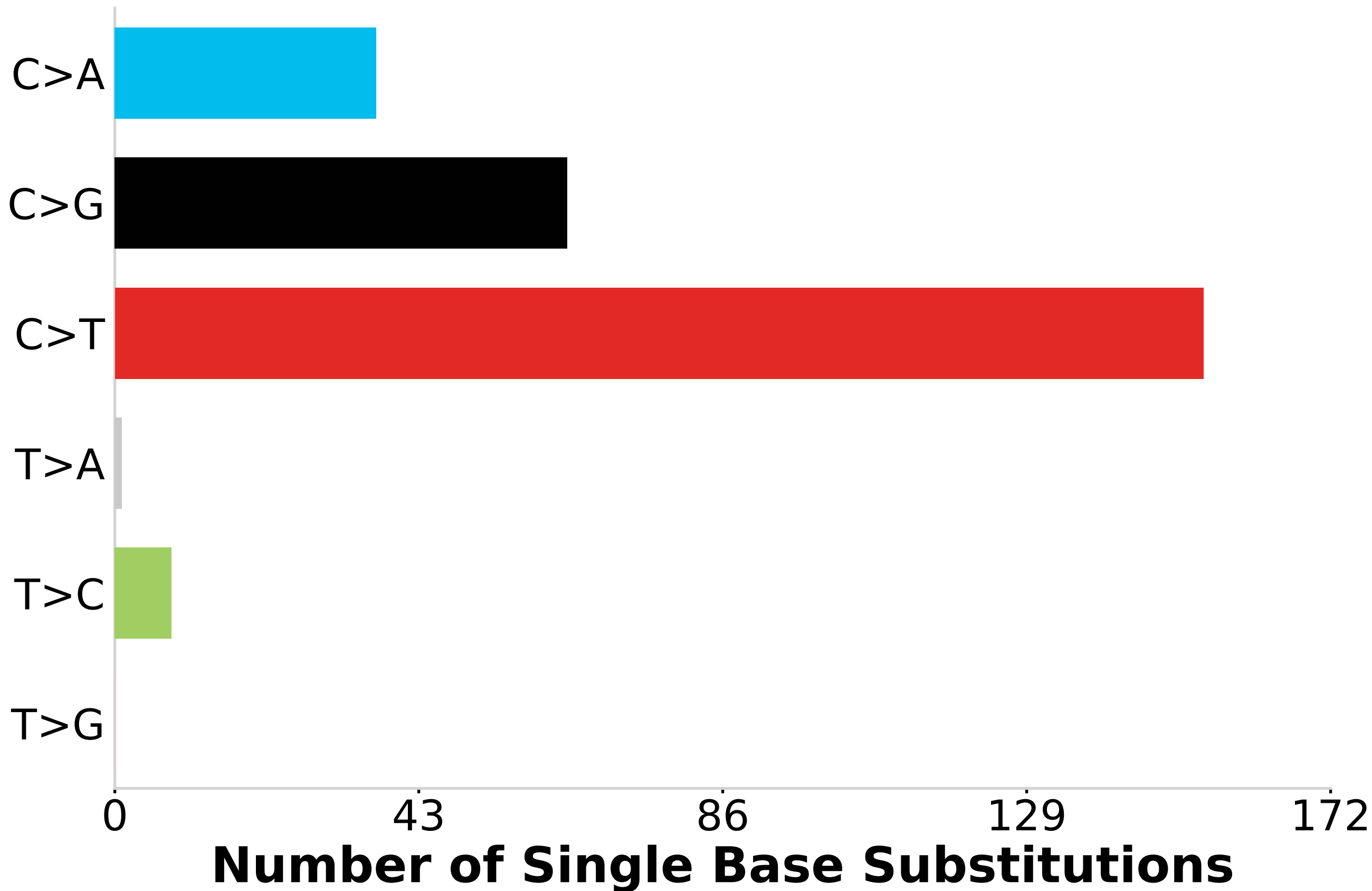
TCGA-DK-A3WX-01A-22D-A22Z-08: 13 subs



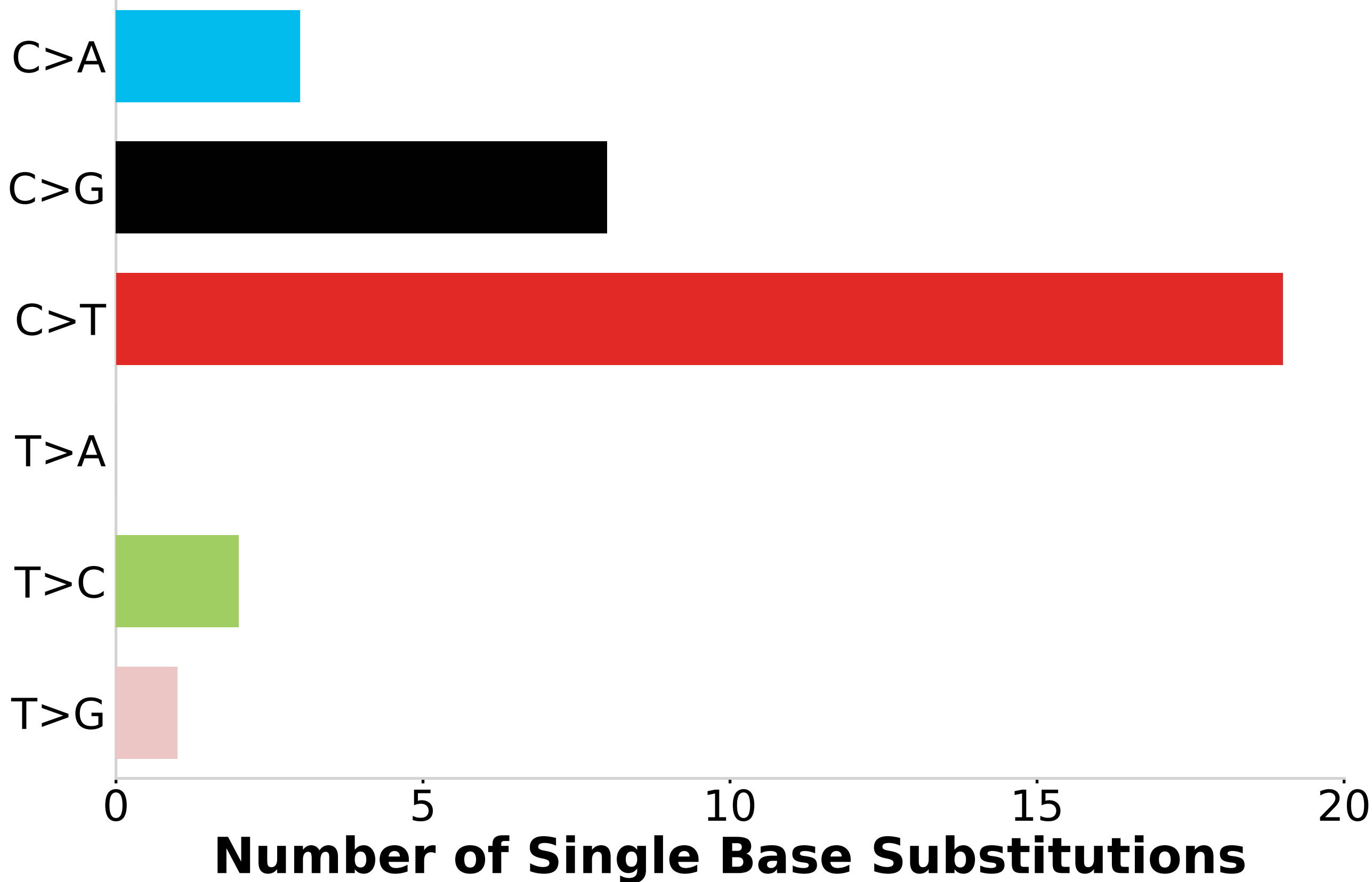
TCGA-DK-A3WY-01A-11D-A22Z-08: 8 subs



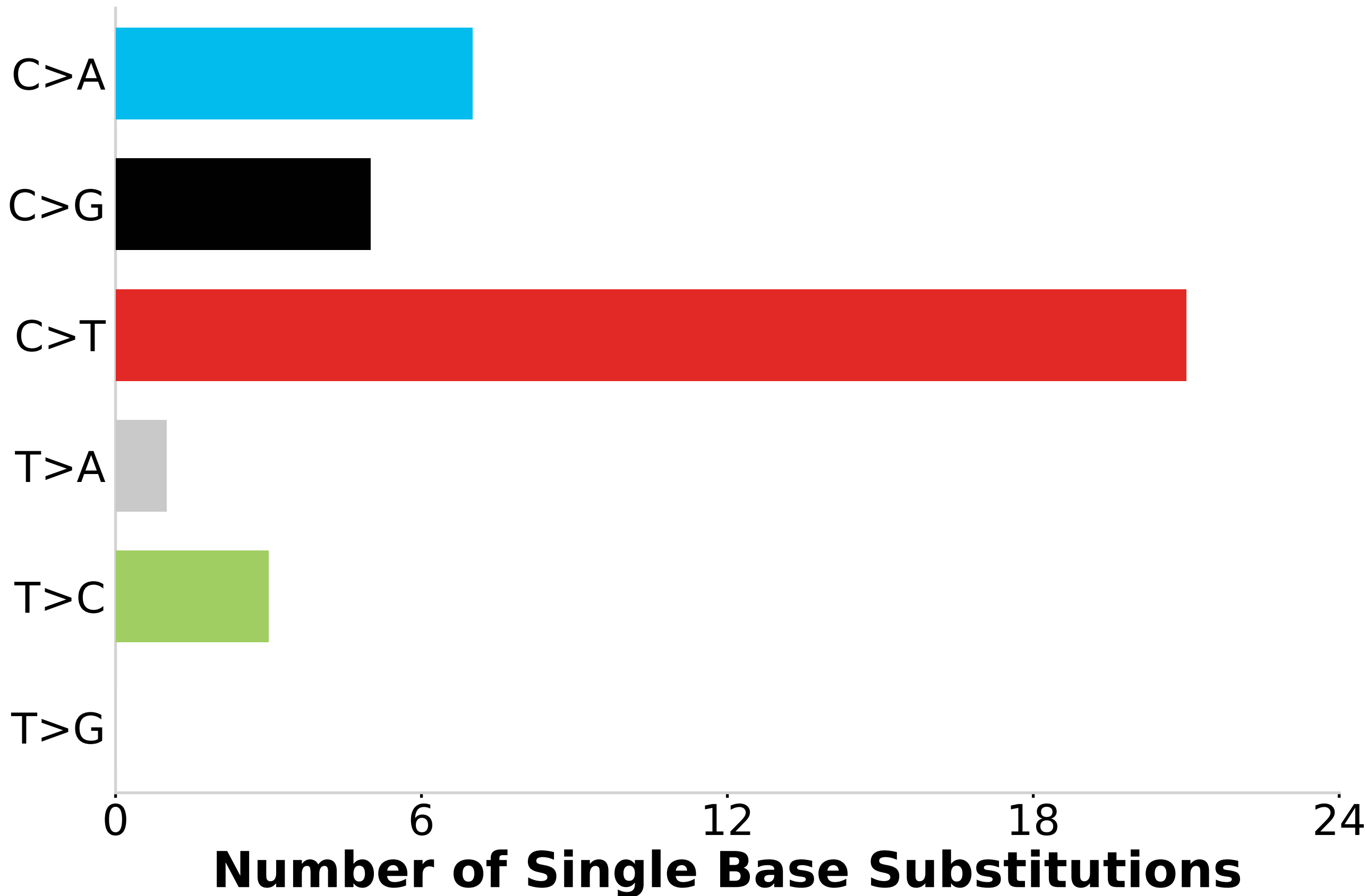
TCGA-DK-A3X1-01A-12D-A22Z-08: 264 sub



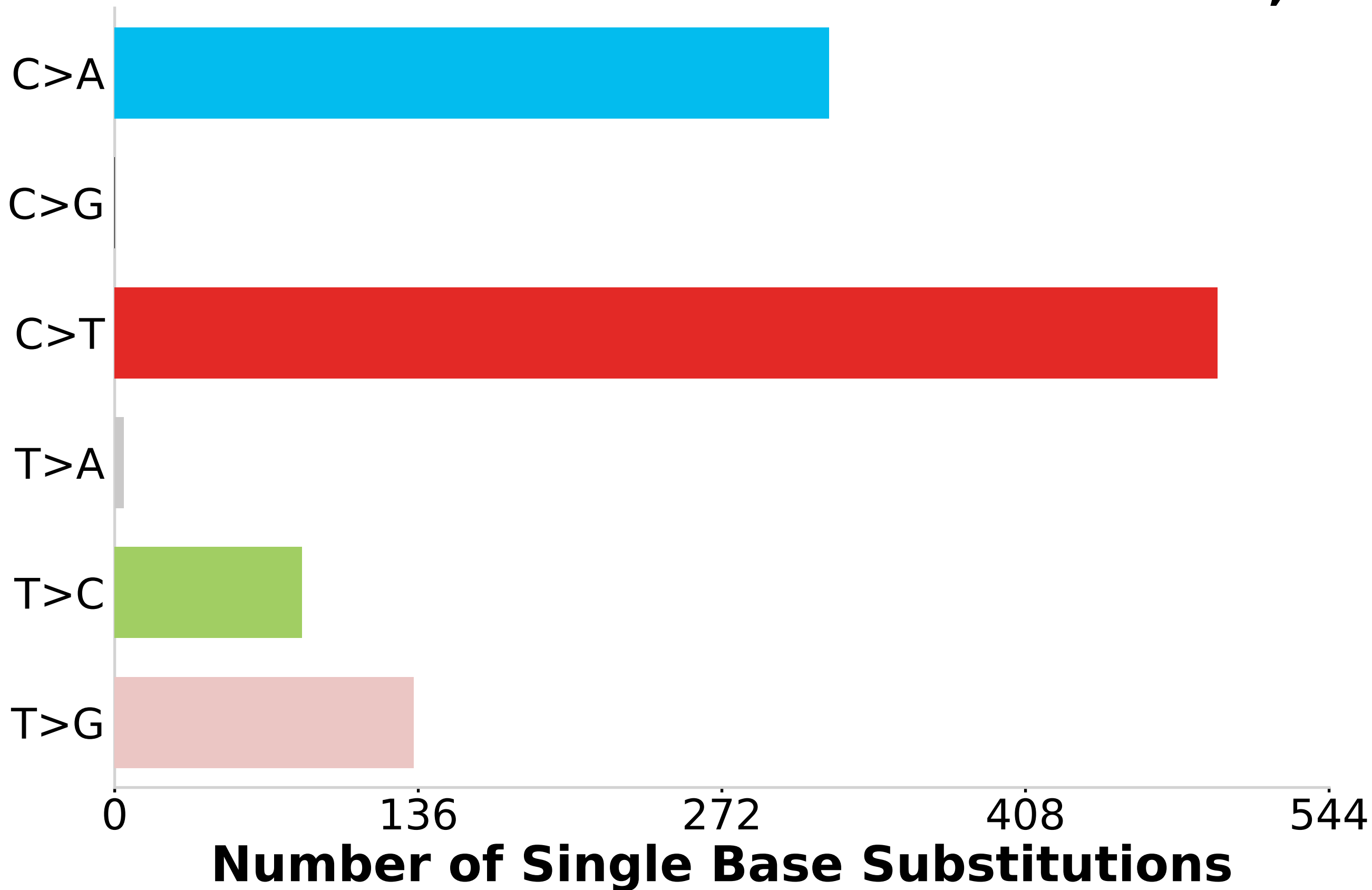
TCGA-DK-A3X2-01A-11D-A22Z-08: 33 subs



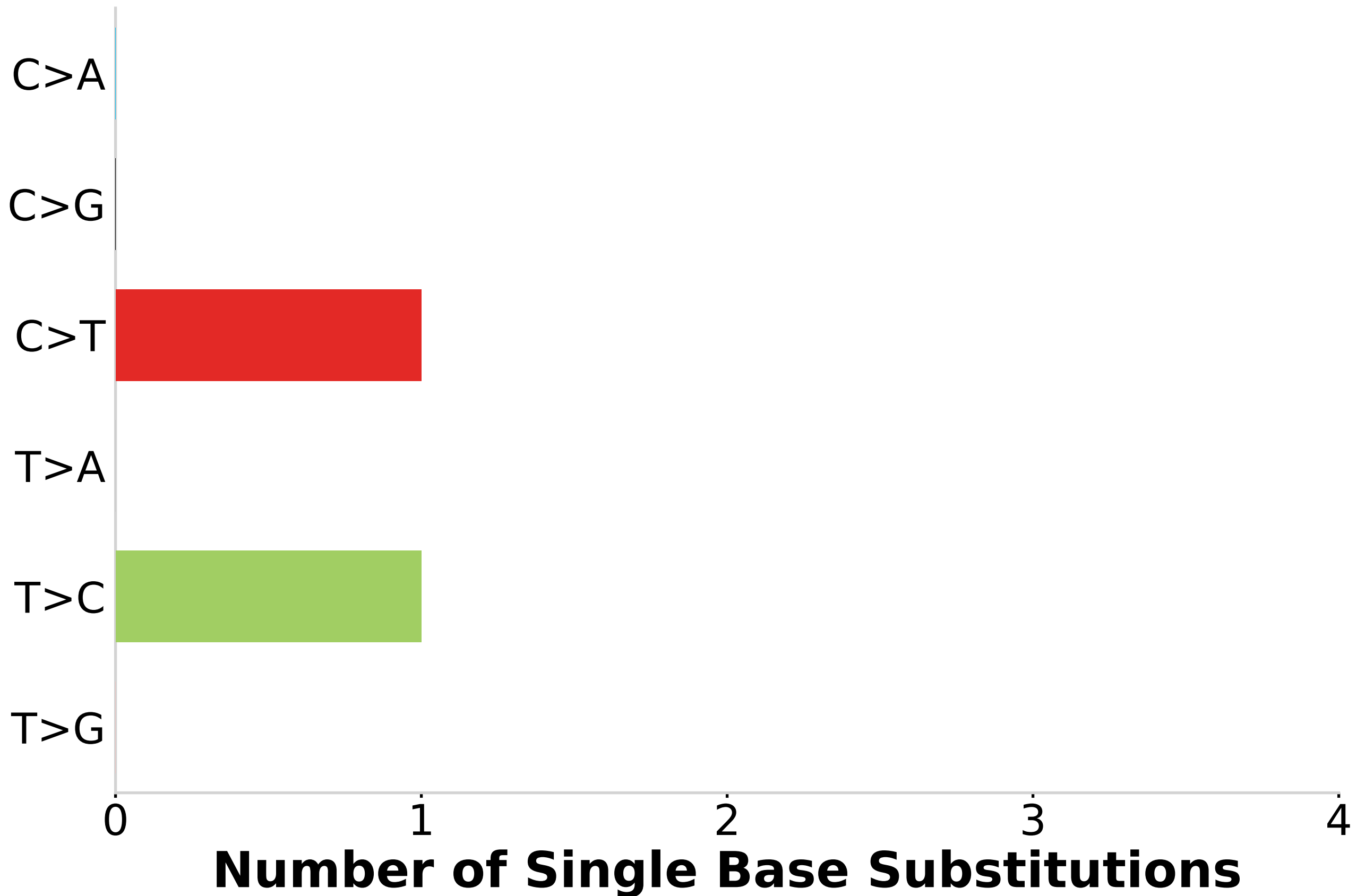
TCGA-DK-A6AV-01A-12D-A30E-08: 37 subs



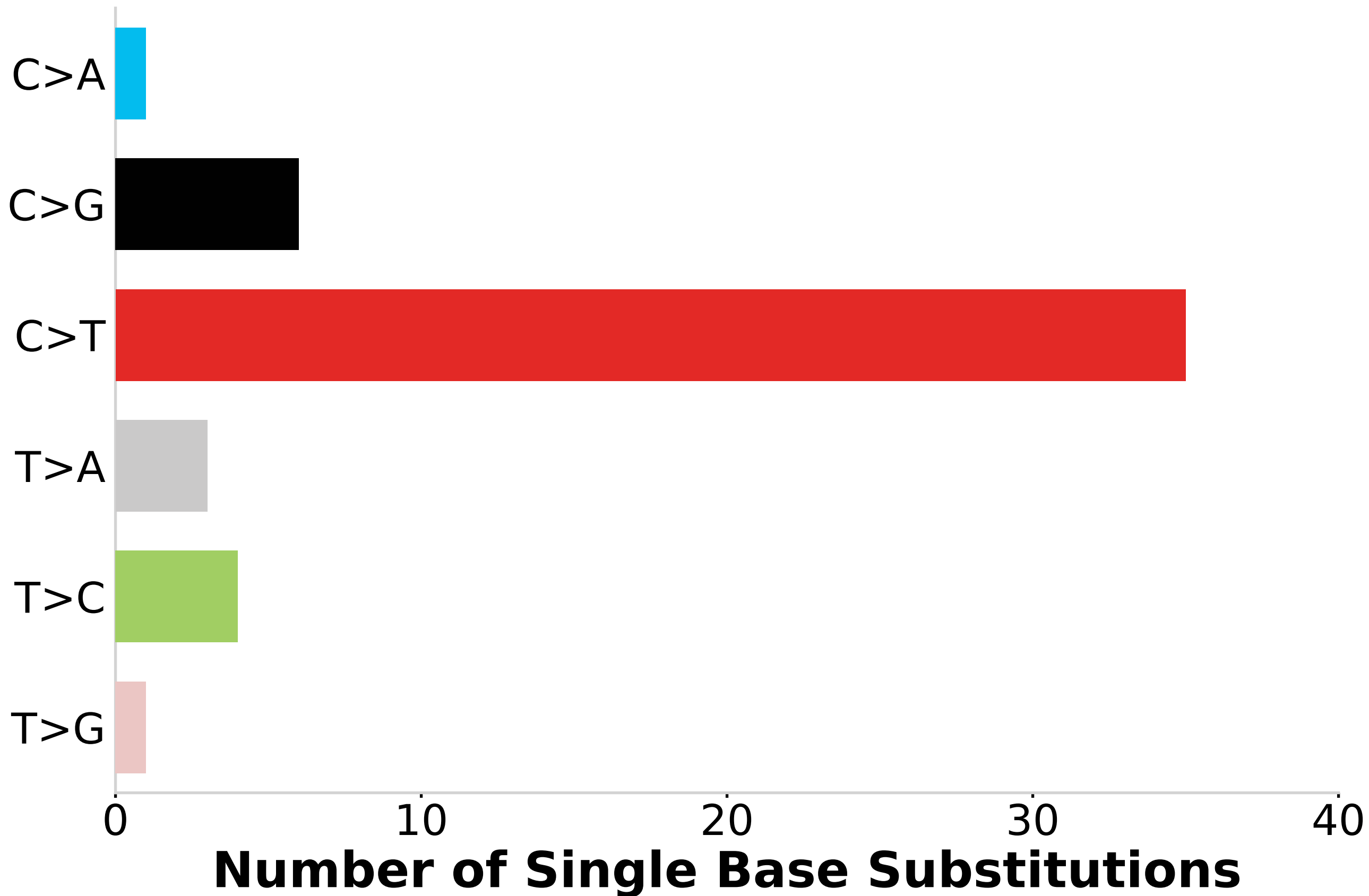
TCGA-DK-A6AW-01A-11D-A30E-08: 1,036 s



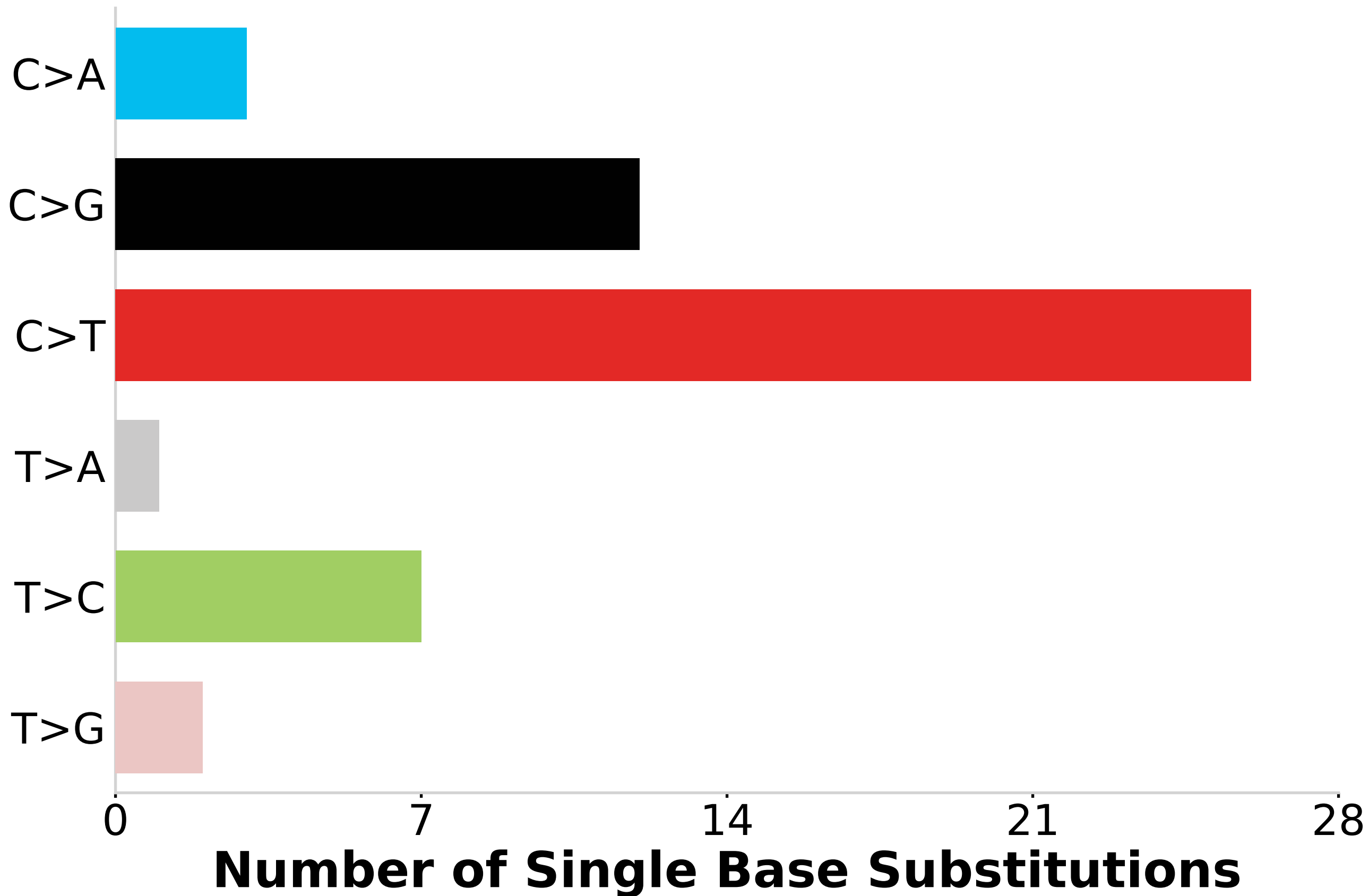
TCGA-DK-A6B0-01A-11D-A31L-08: 2 subs



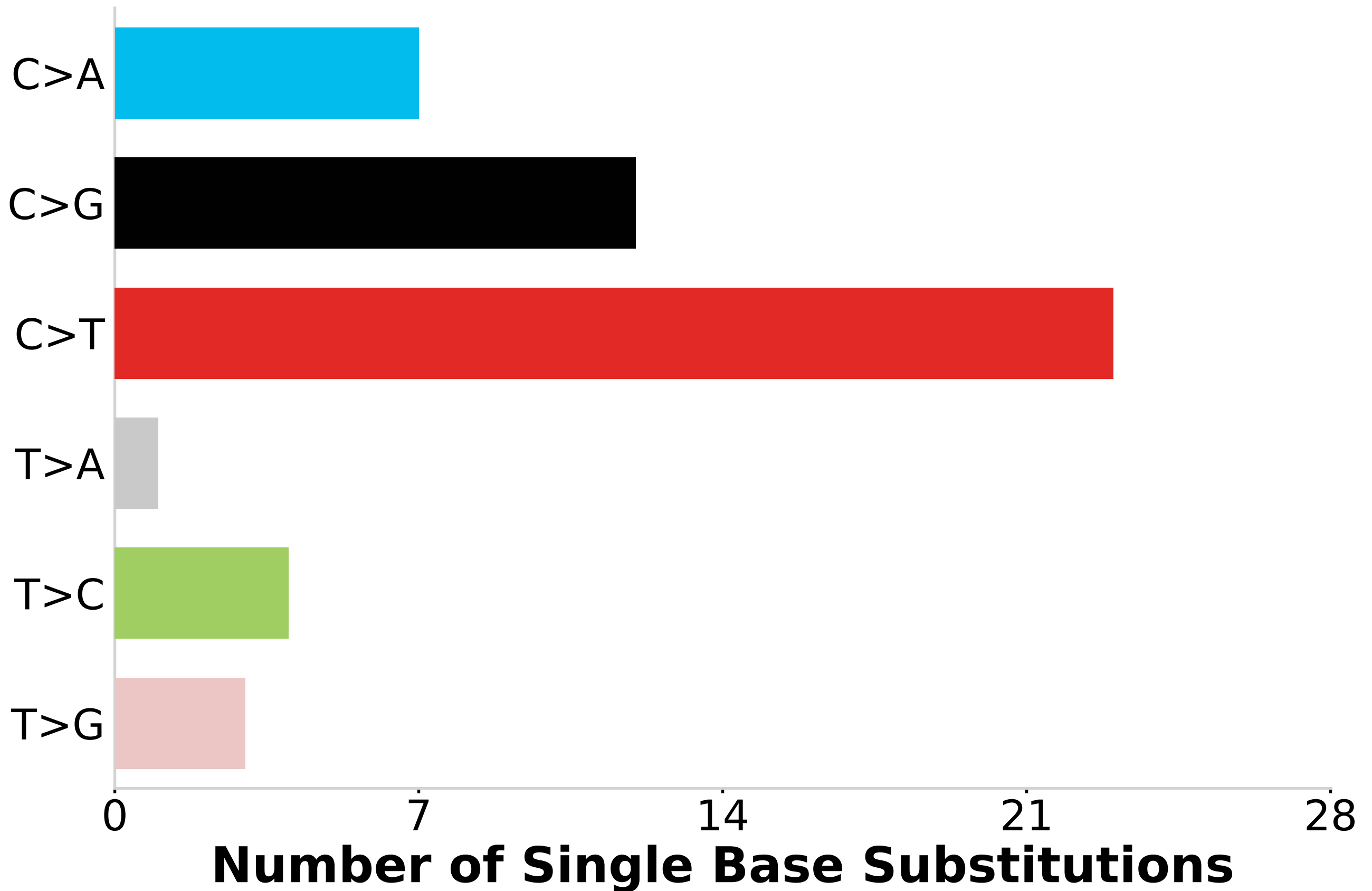
TCGA-DK-A6B1-01A-12D-A30E-08: 50 subs



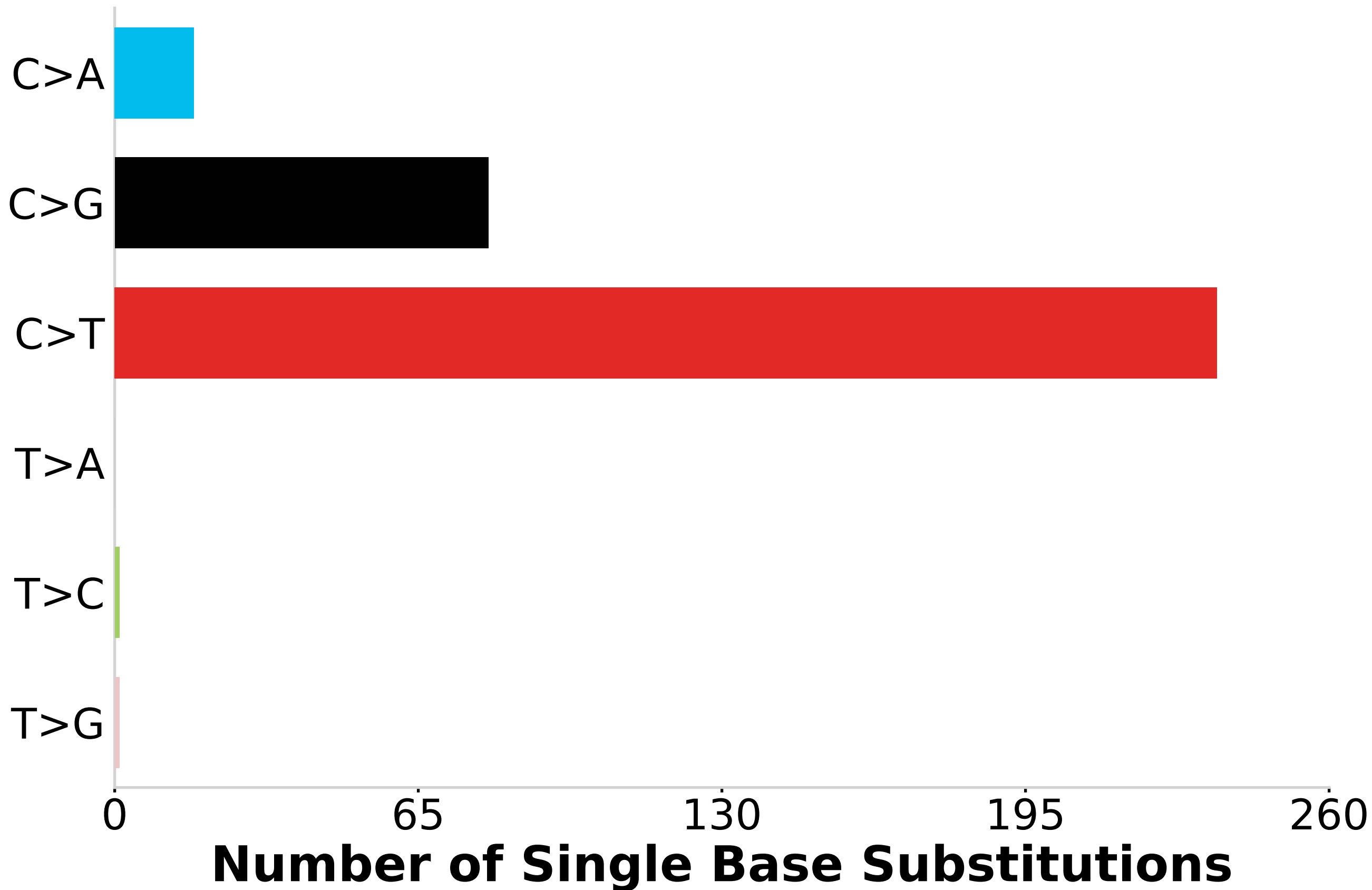
TCGA-DK-A6B2-01A-11D-A30E-08: 51 subs



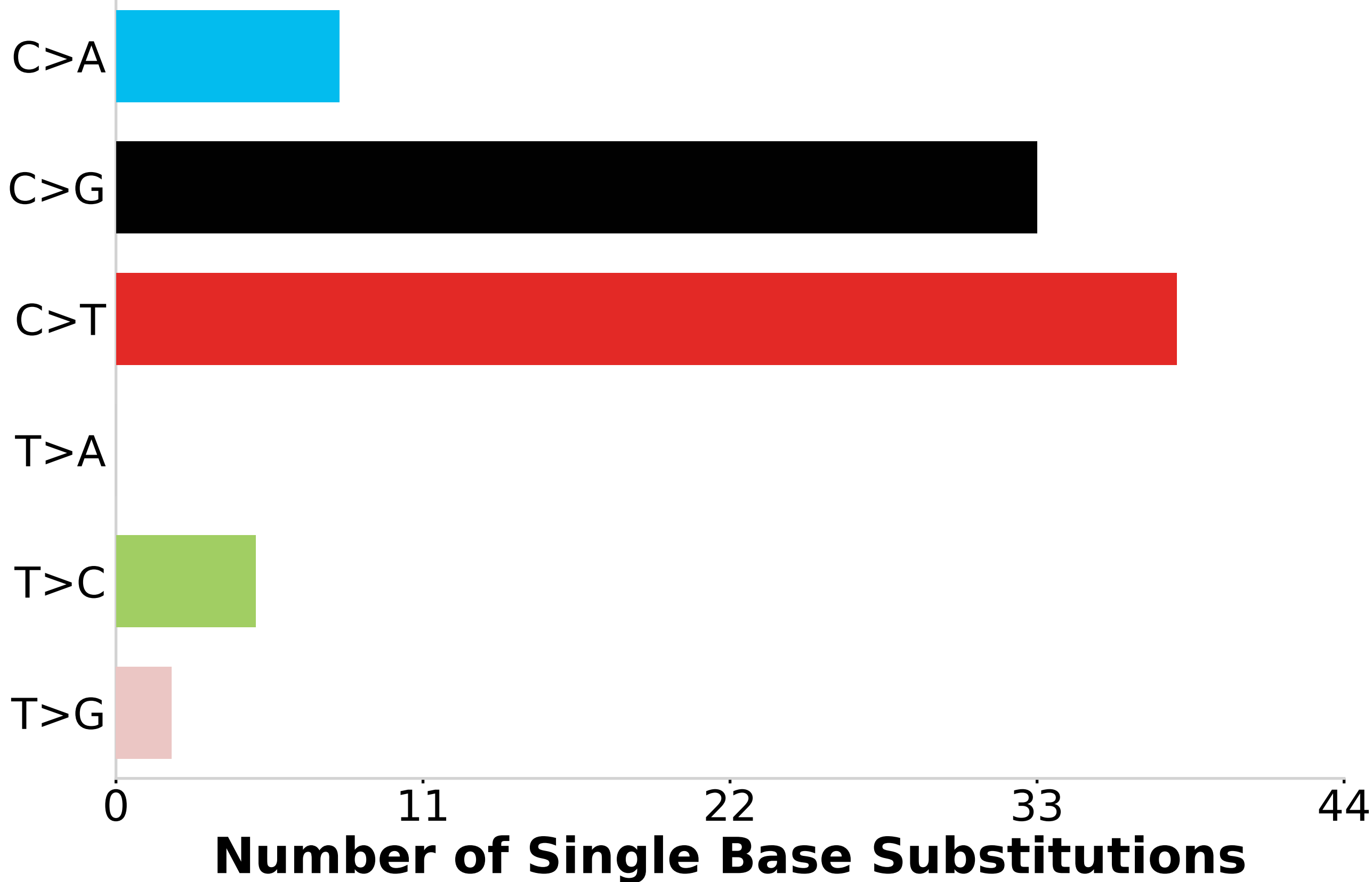
TCGA-DK-A6B5-01A-11D-A31L-08: 50 subs



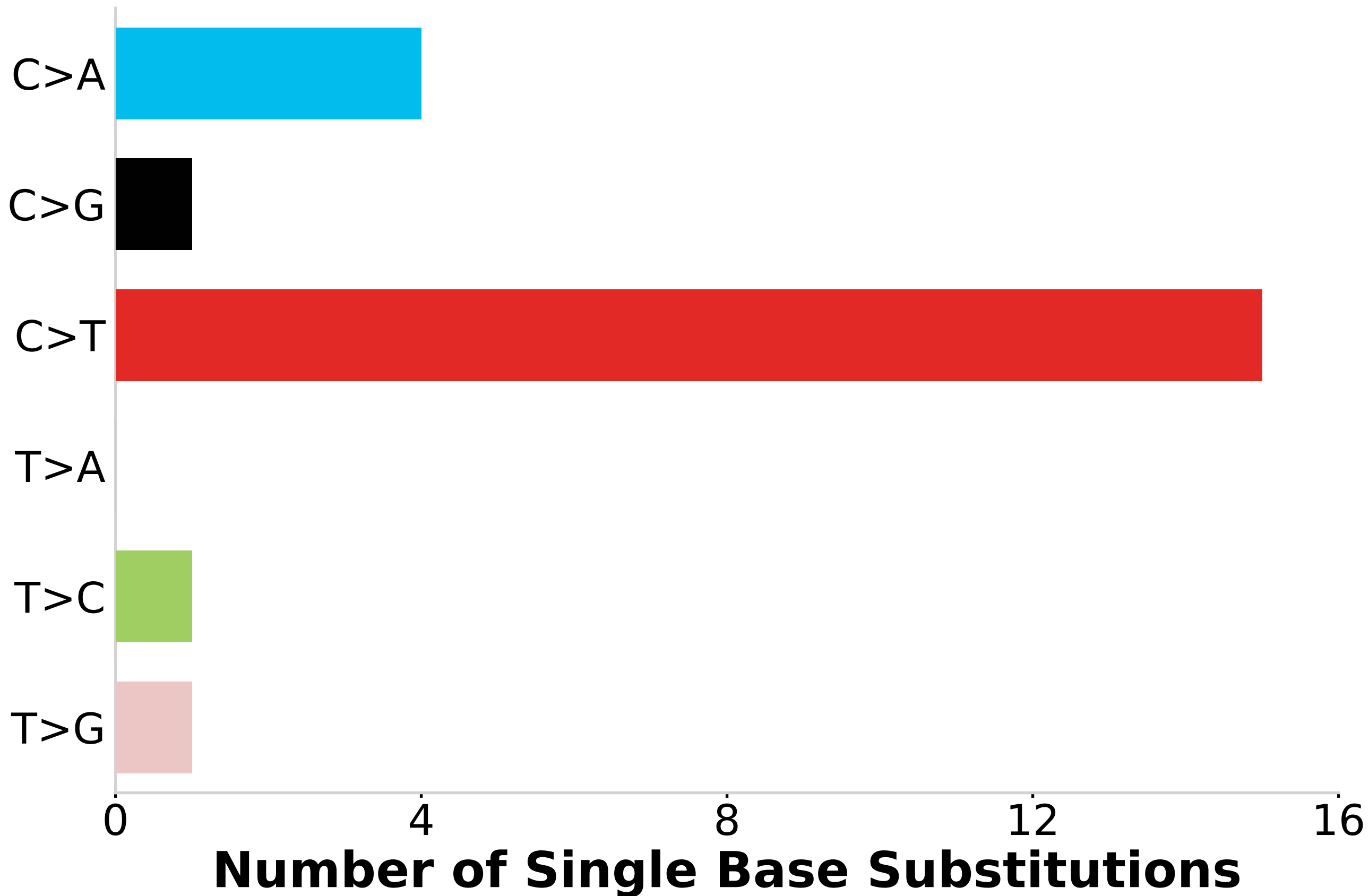
TCGA-DK-A6B6-01A-11D-A30E-08: 335 sub



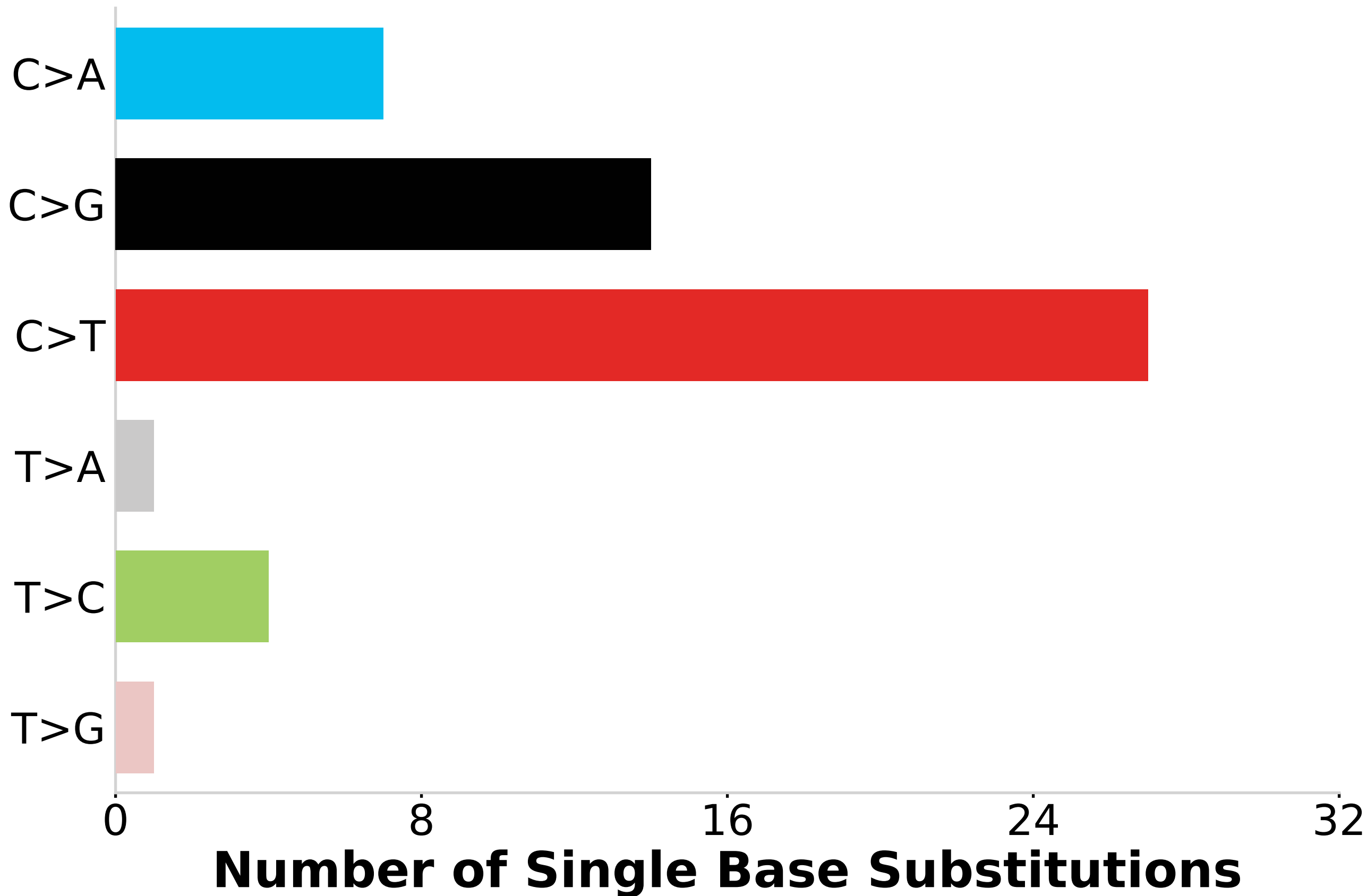
TCGA-DK-AA6L-01A-11D-A391-08: 86 subs



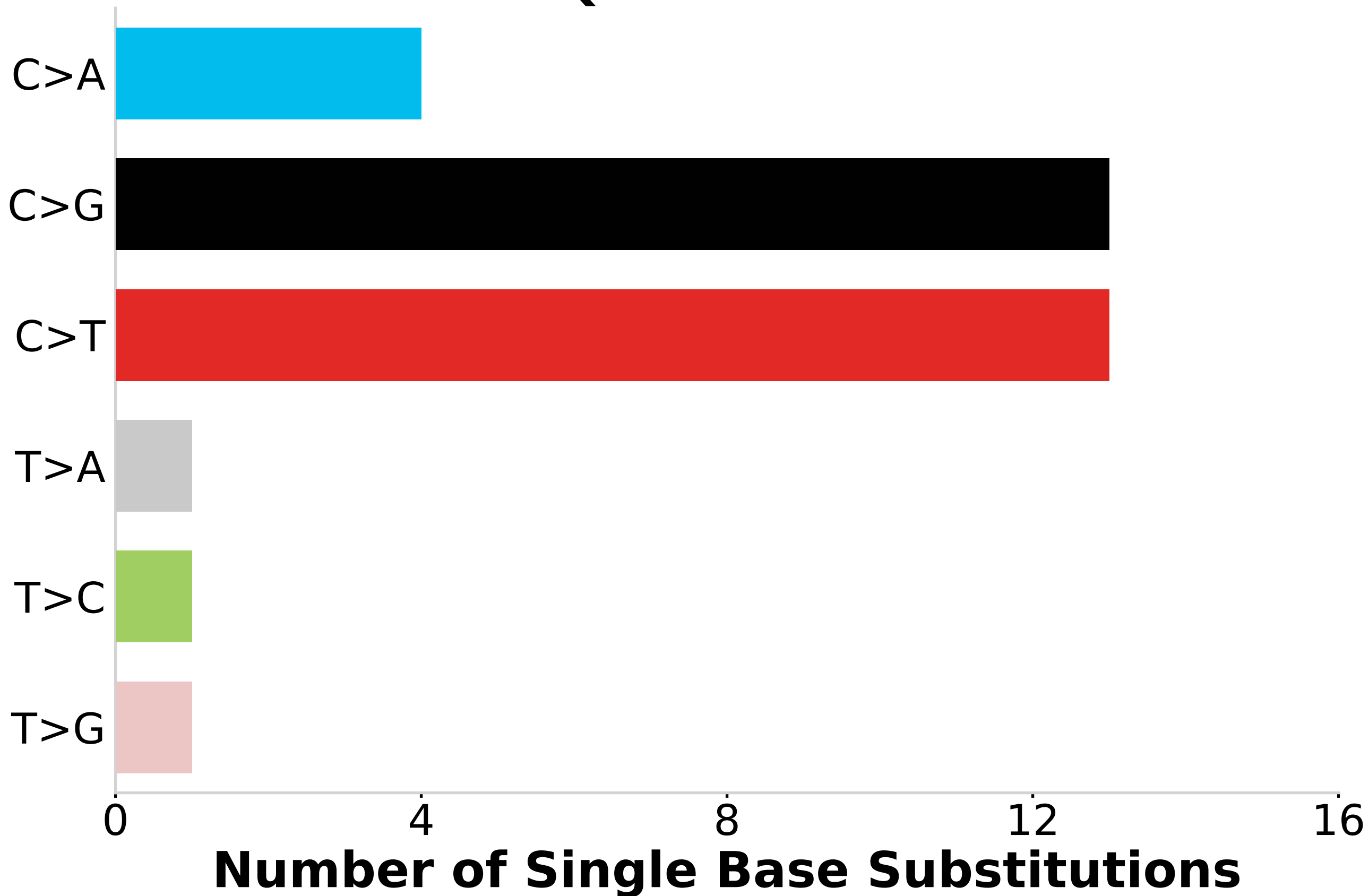
TCGA-DK-AA6M-01A-11D-A391-08: 22 subs



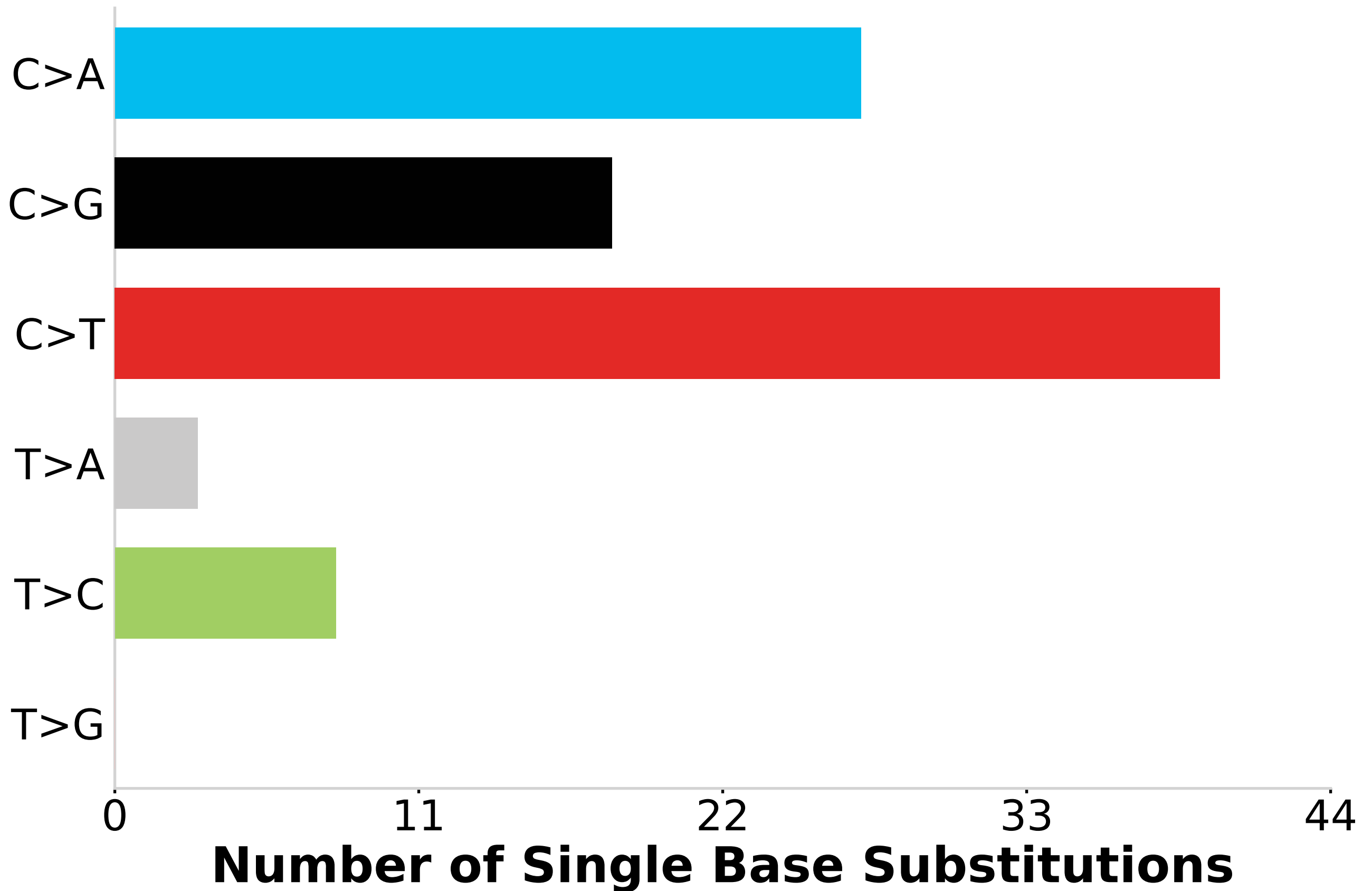
TCGA-DK-AA6P-01A-11D-A391-08: 54 subs



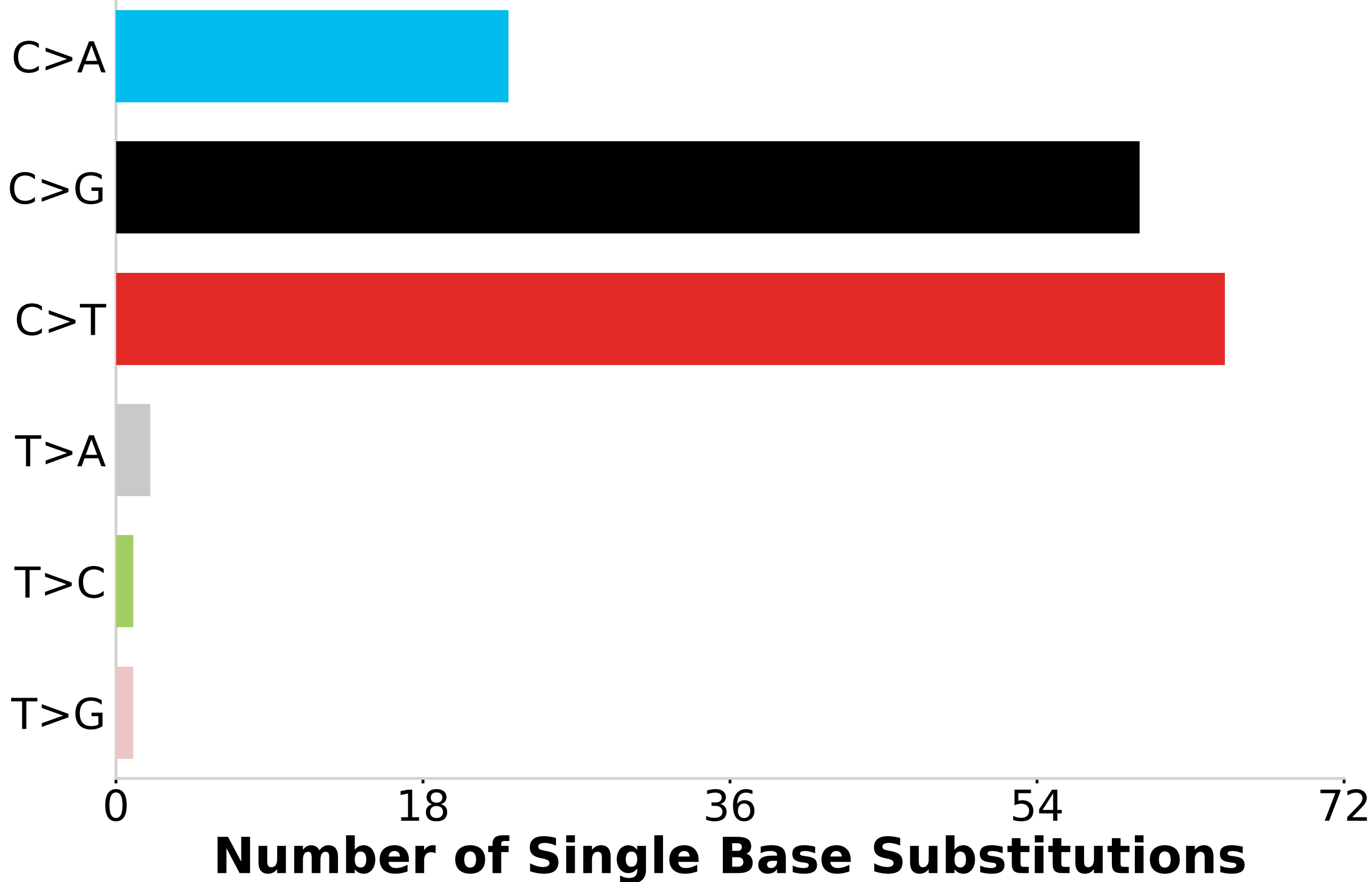
TCGA-DK-AA6Q-01A-11D-A391-08: 33 subs



TCGA-DK-AA6R-01A-11D-A42E-08: 96 subs



TCGA-DK-AA6S-01A-21D-A391-08: 152 sub



TCGA-DK-AA6T-01A-11D-A391-08: 14 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

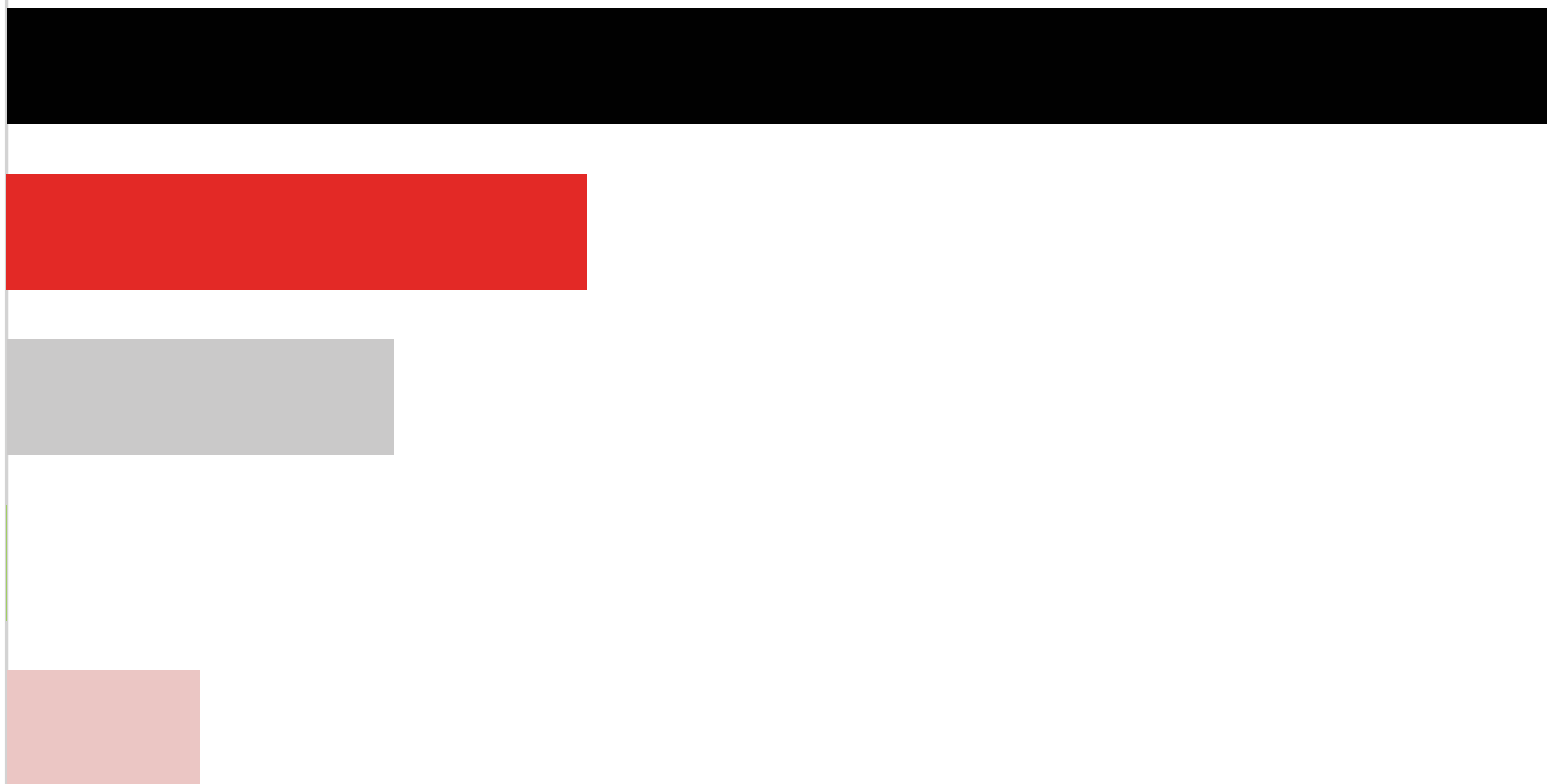
2

4

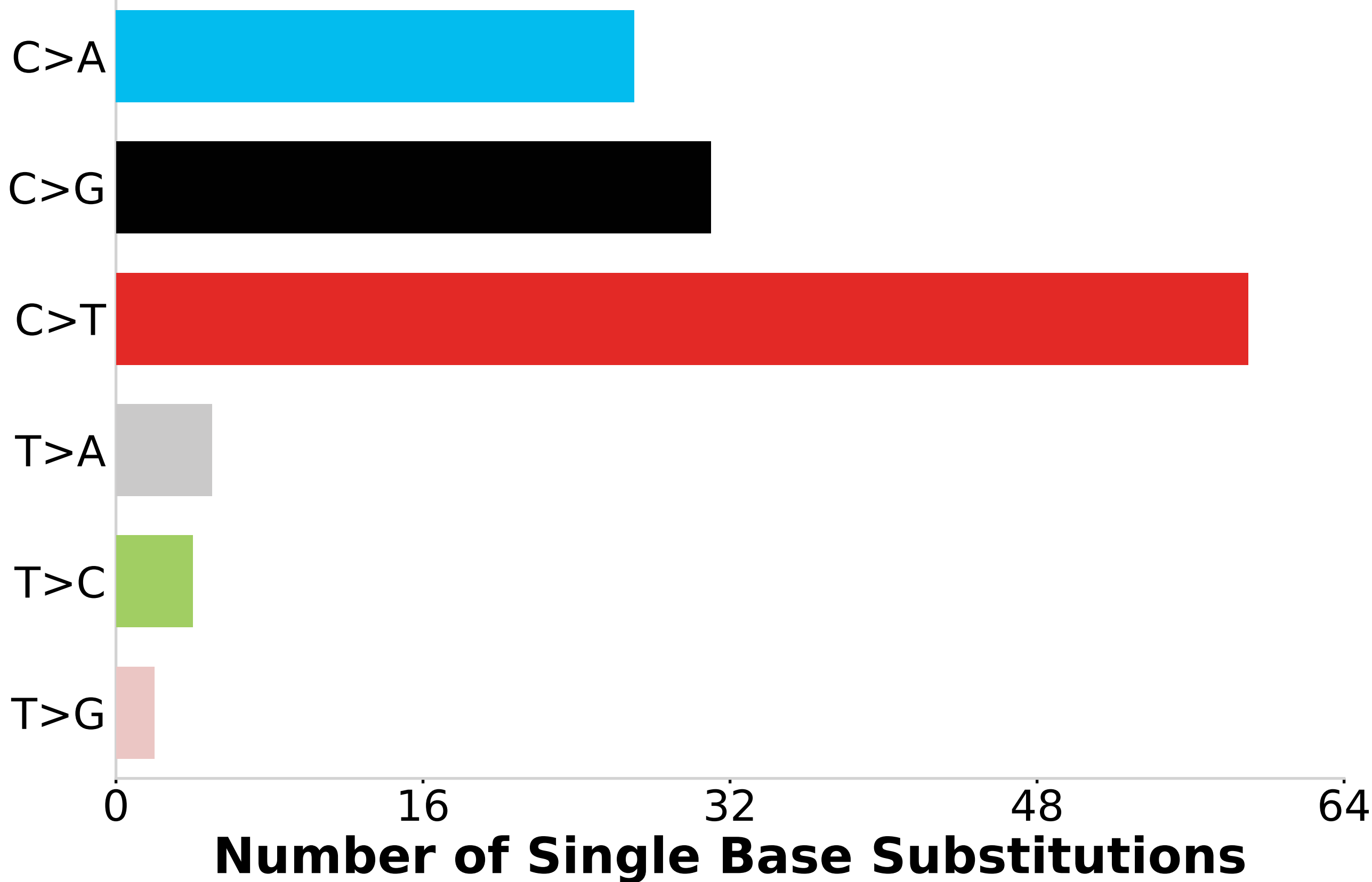
6

8

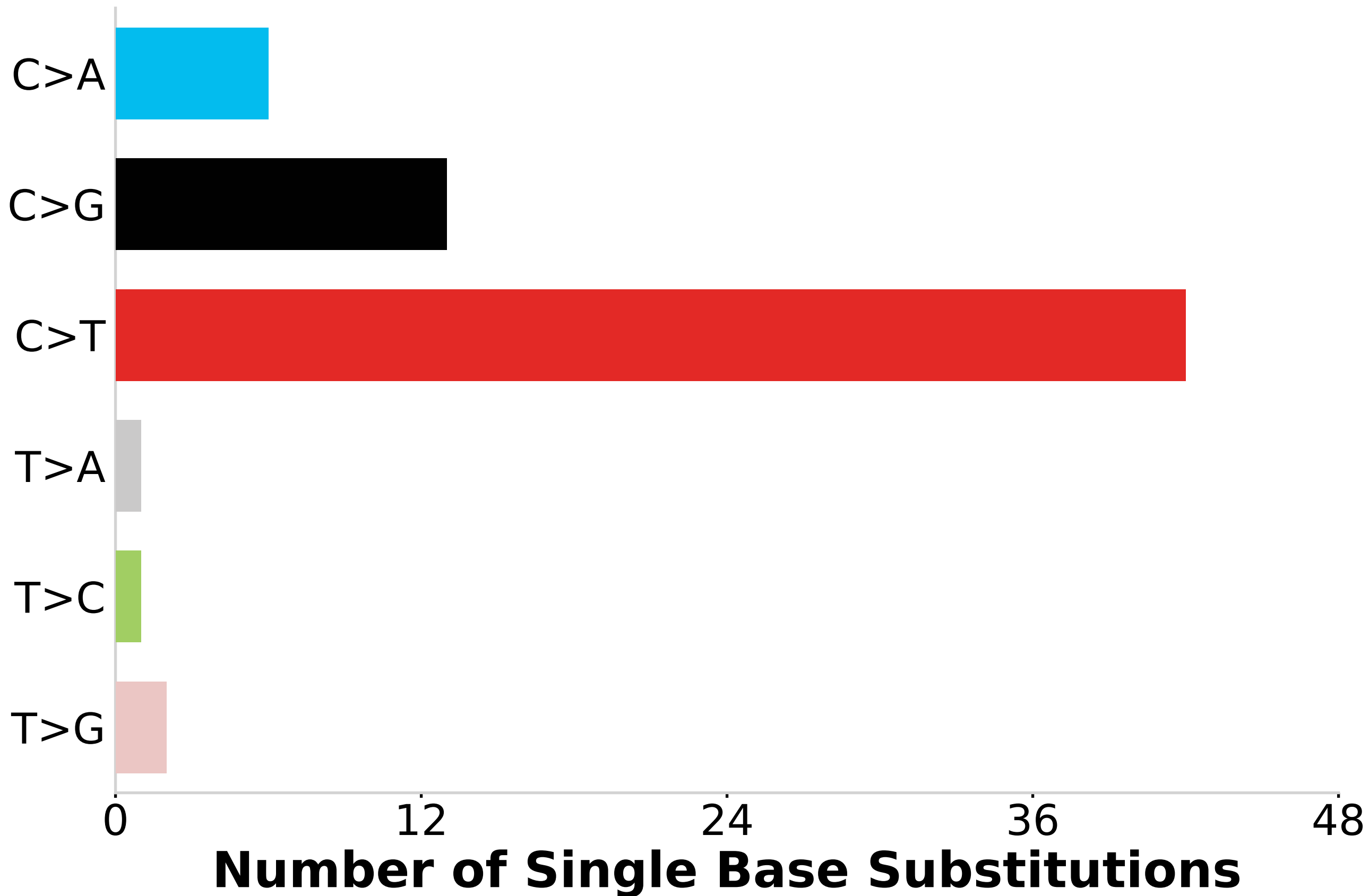
Number of Single Base Substitutions



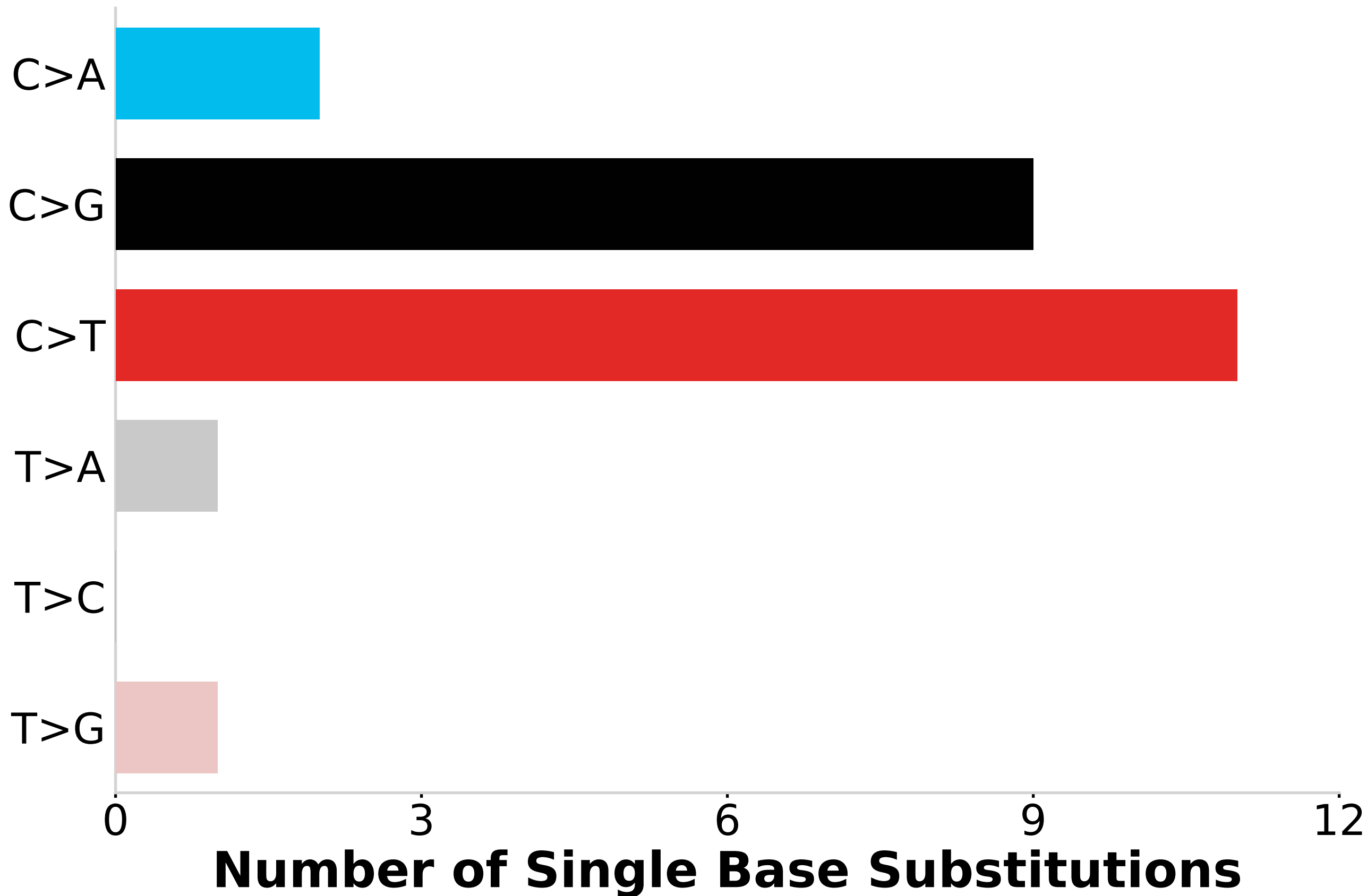
TCGA-DK-AA6U-01A-11D-A391-08: 128 sub



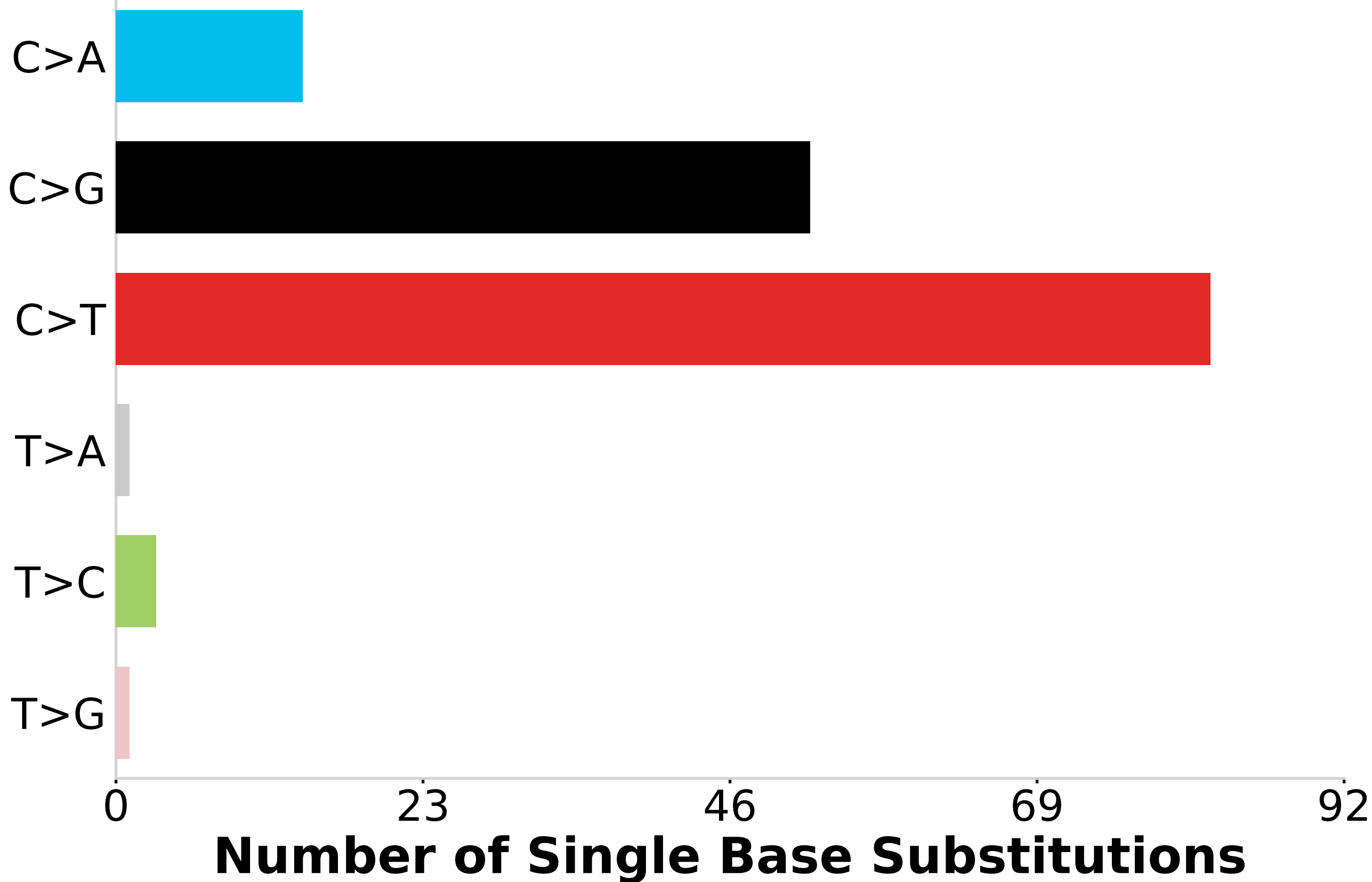
TCGA-DK-AA6W-01A-12D-A391-08: 65 subs



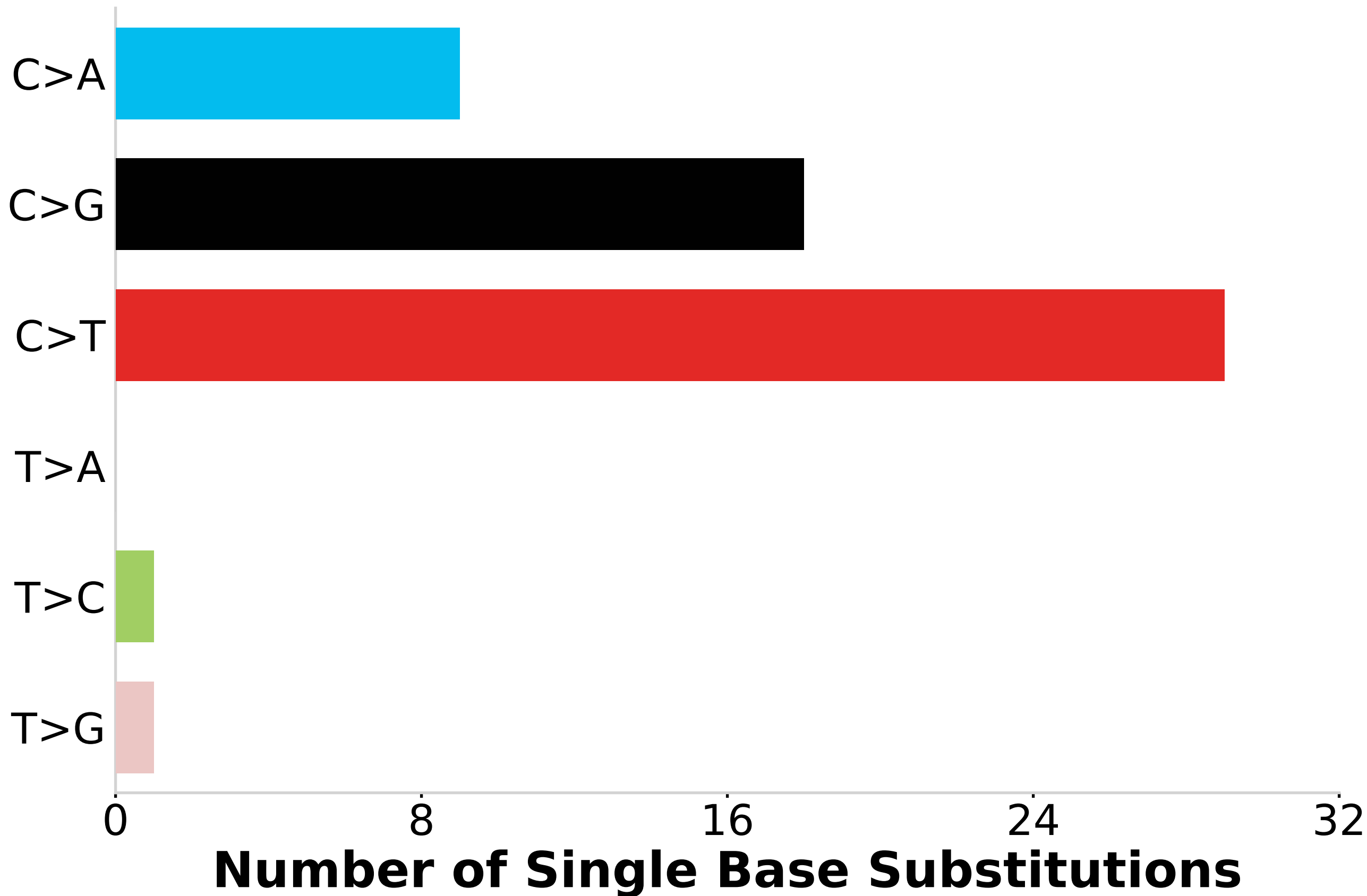
TCGA-DK-AA6X-01A-12D-A42E-08: 24 subs



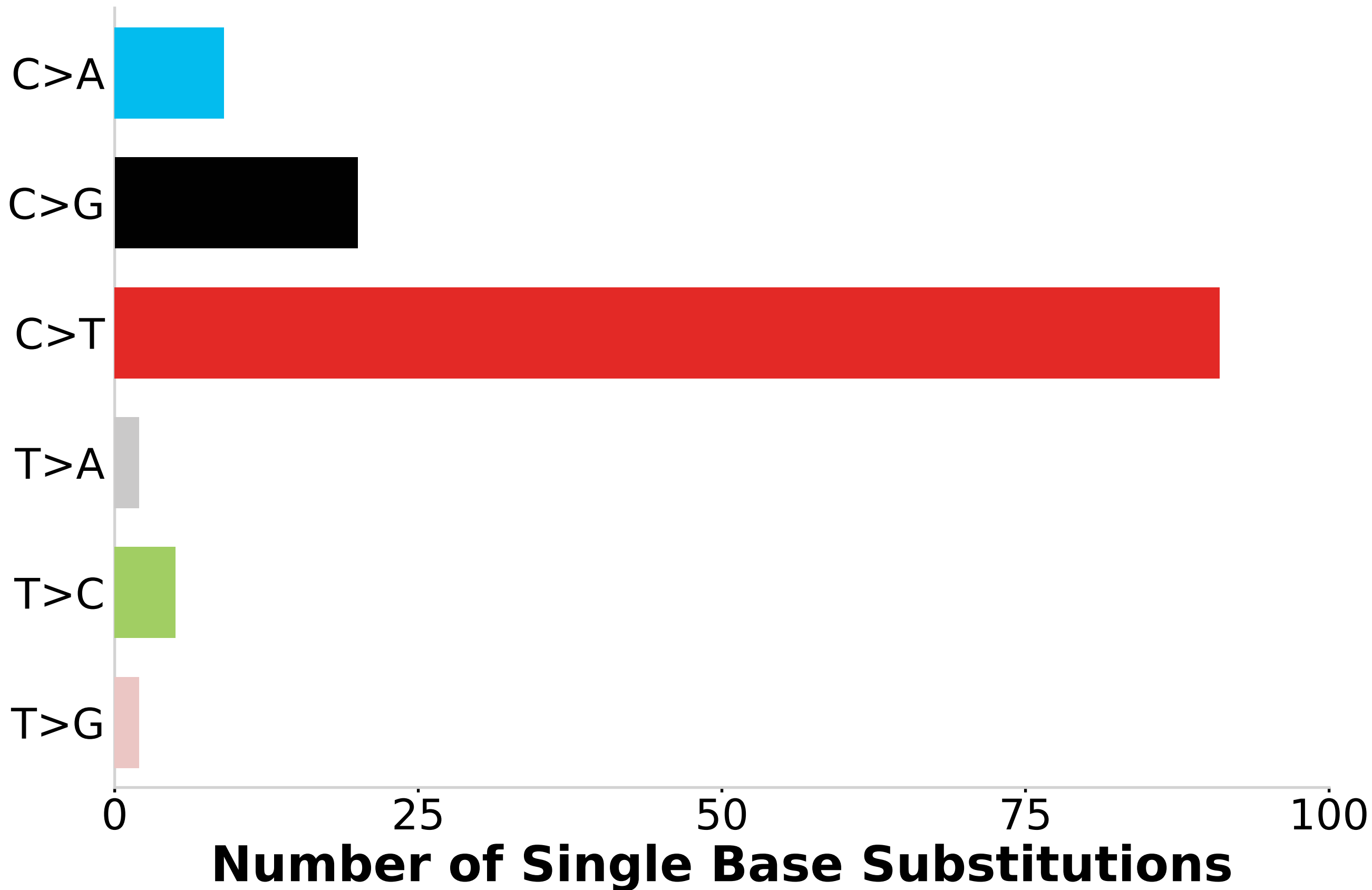
TCGA-DK-AA71-01A-31D-A391-08: 153 sub



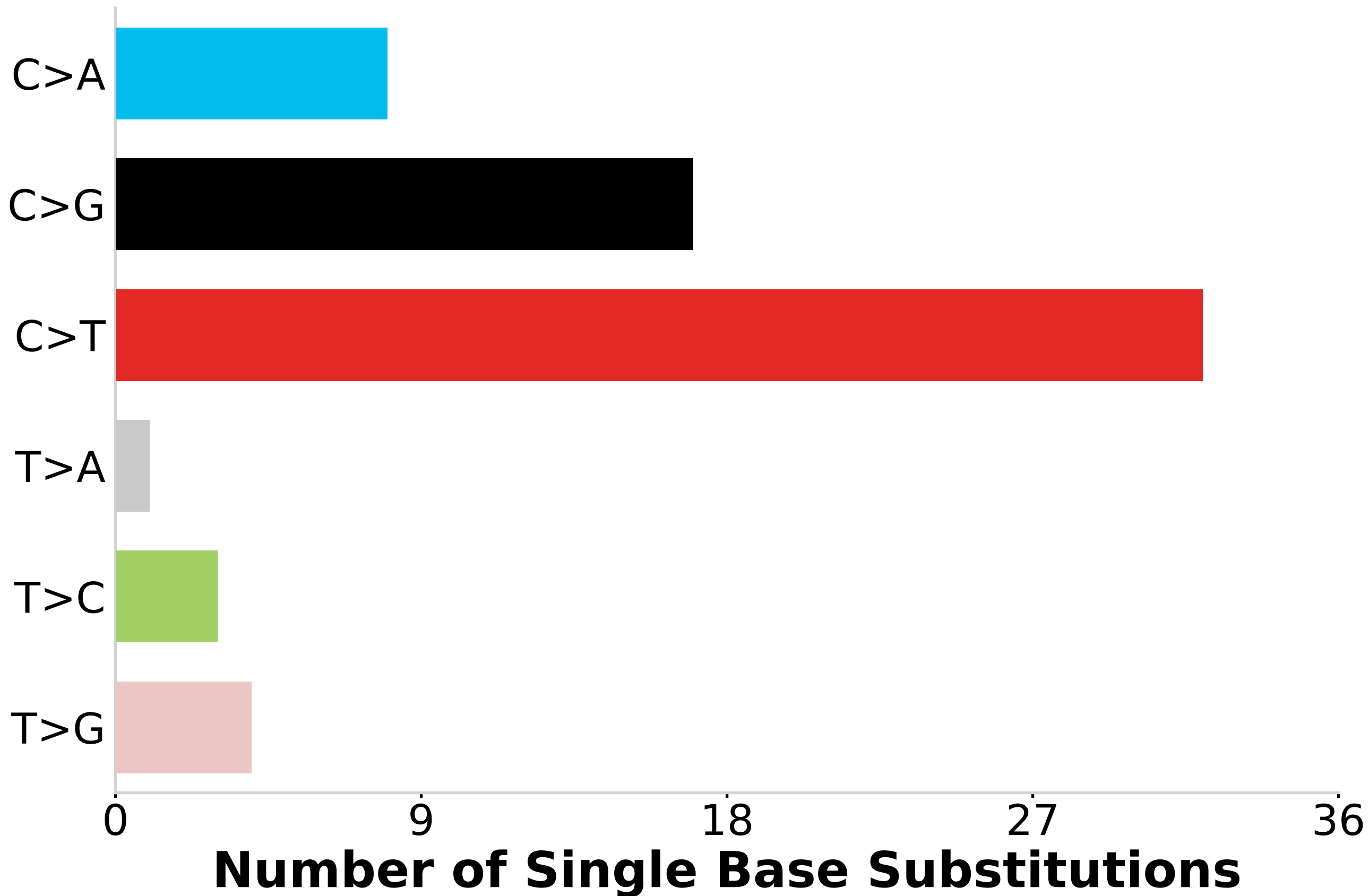
TCGA-DK-AA74-01A-11D-A391-08: 58 subs



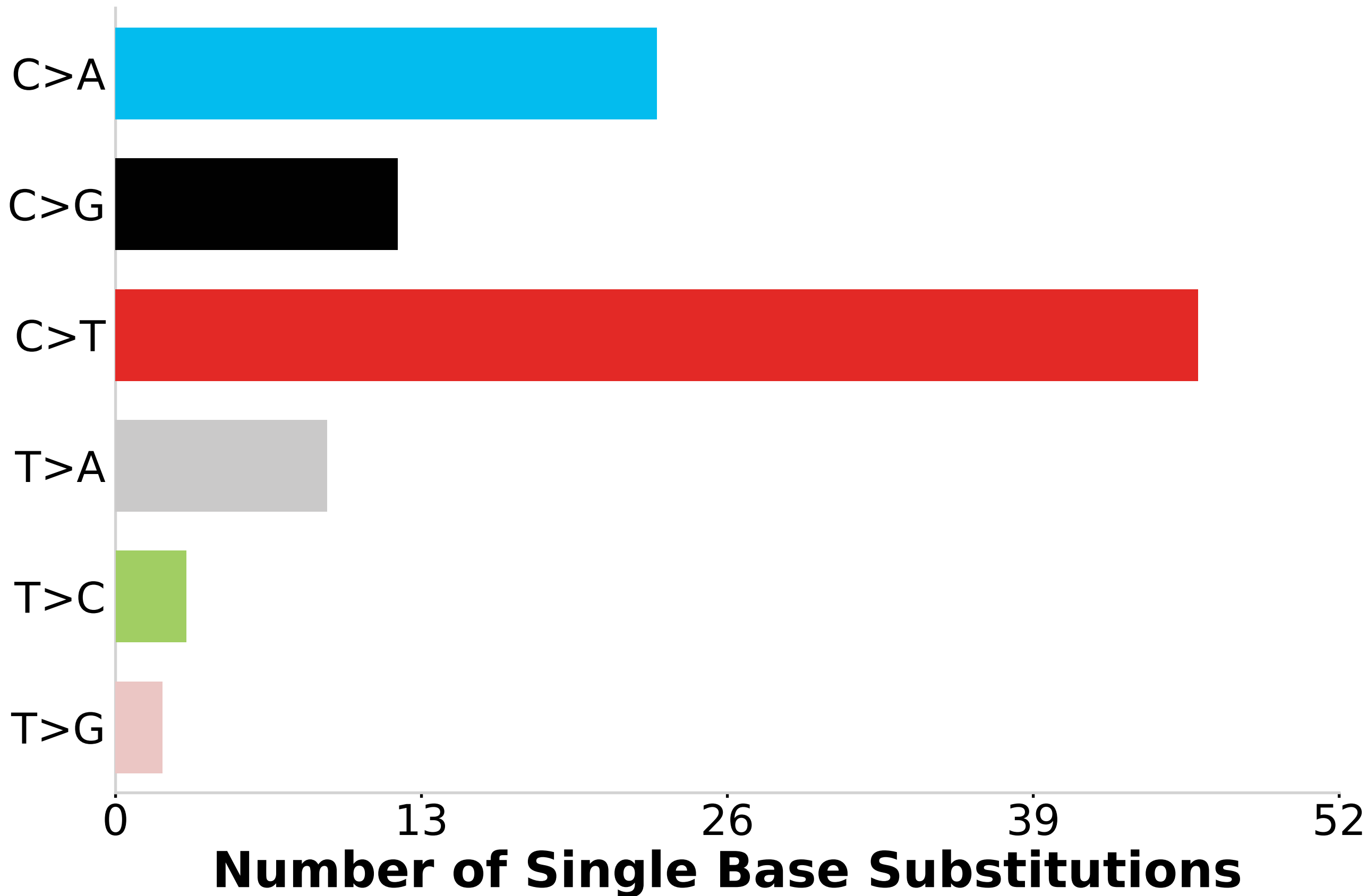
TCGA-DK-AA75-01A-11D-A391-08: 129 sub



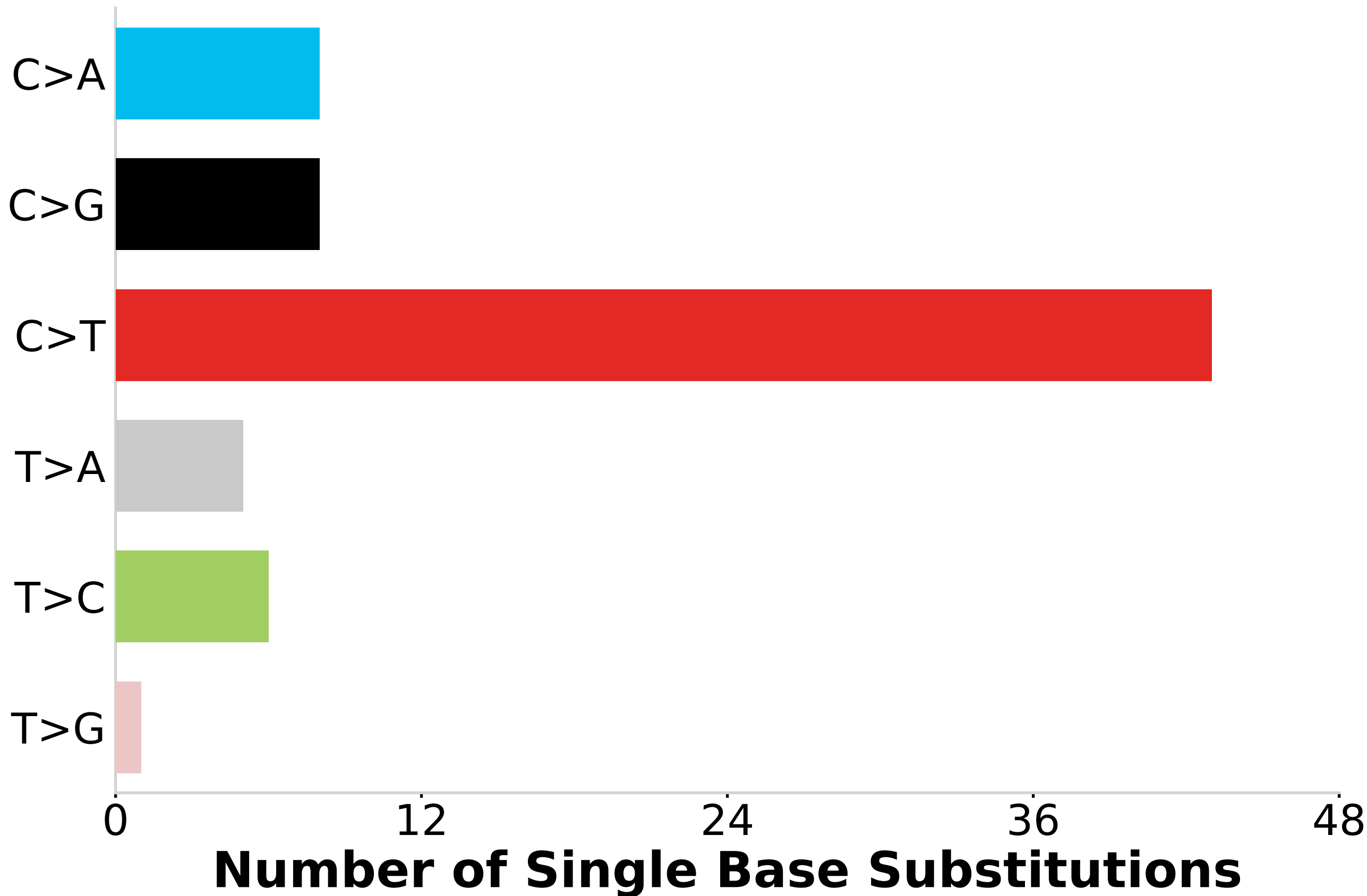
TCGA-DK-AA76-01A-11D-A391-08: 65 subs



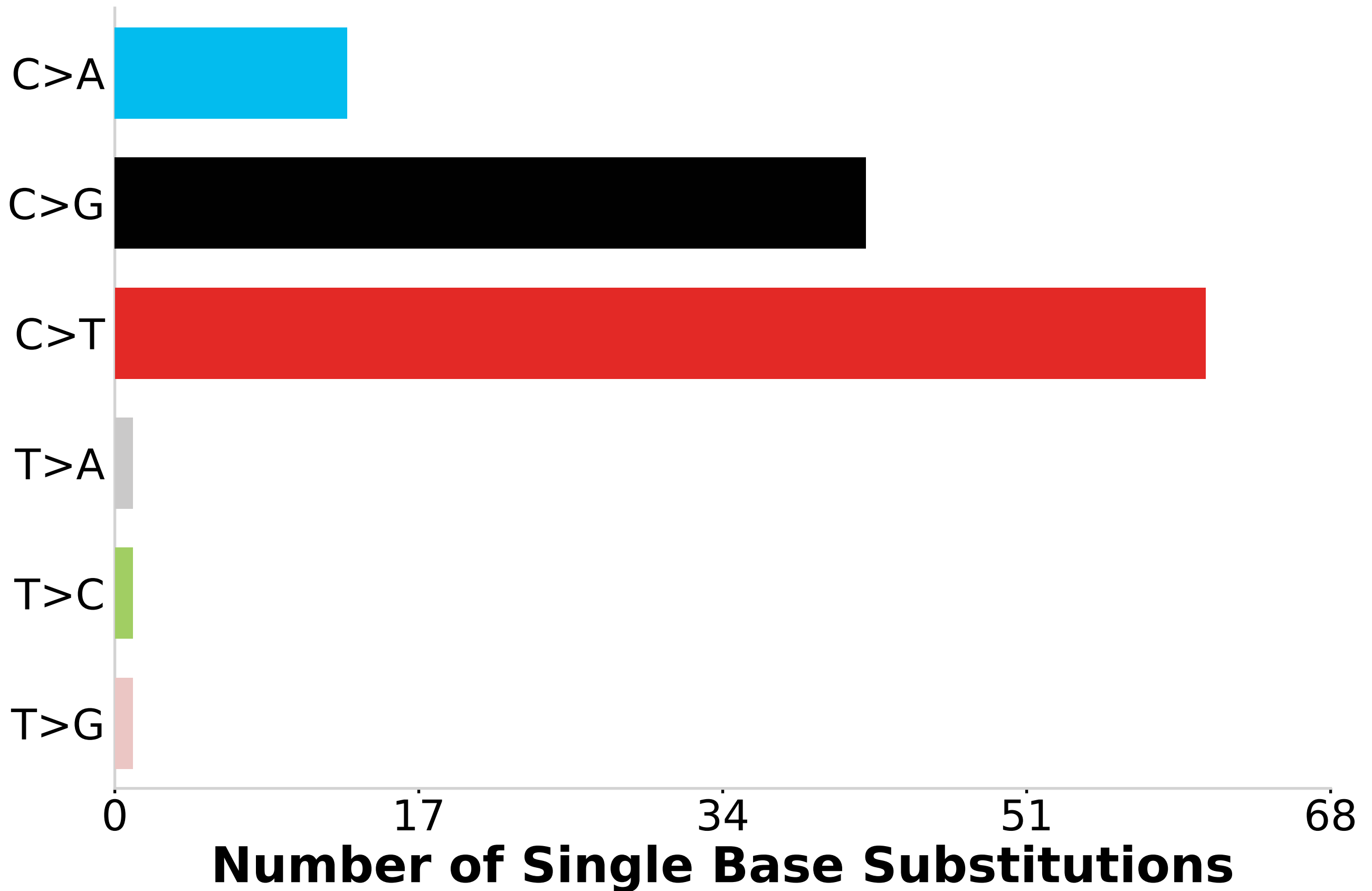
TCGA-DK-AA77-01A-11D-A391-08: 95 subs



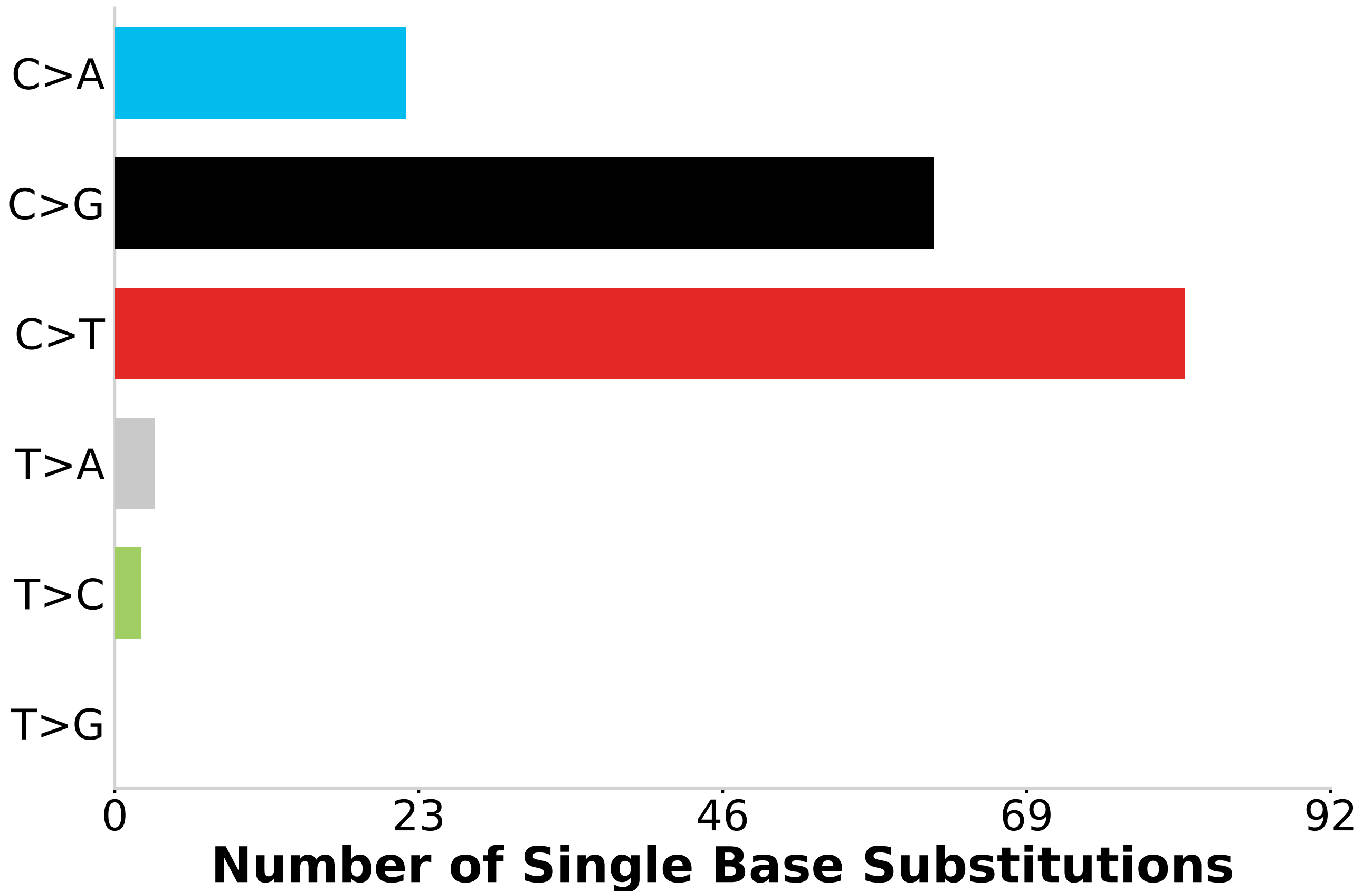
TCGA-E5-A2PC-01A-11D-A202-08: 71 subs



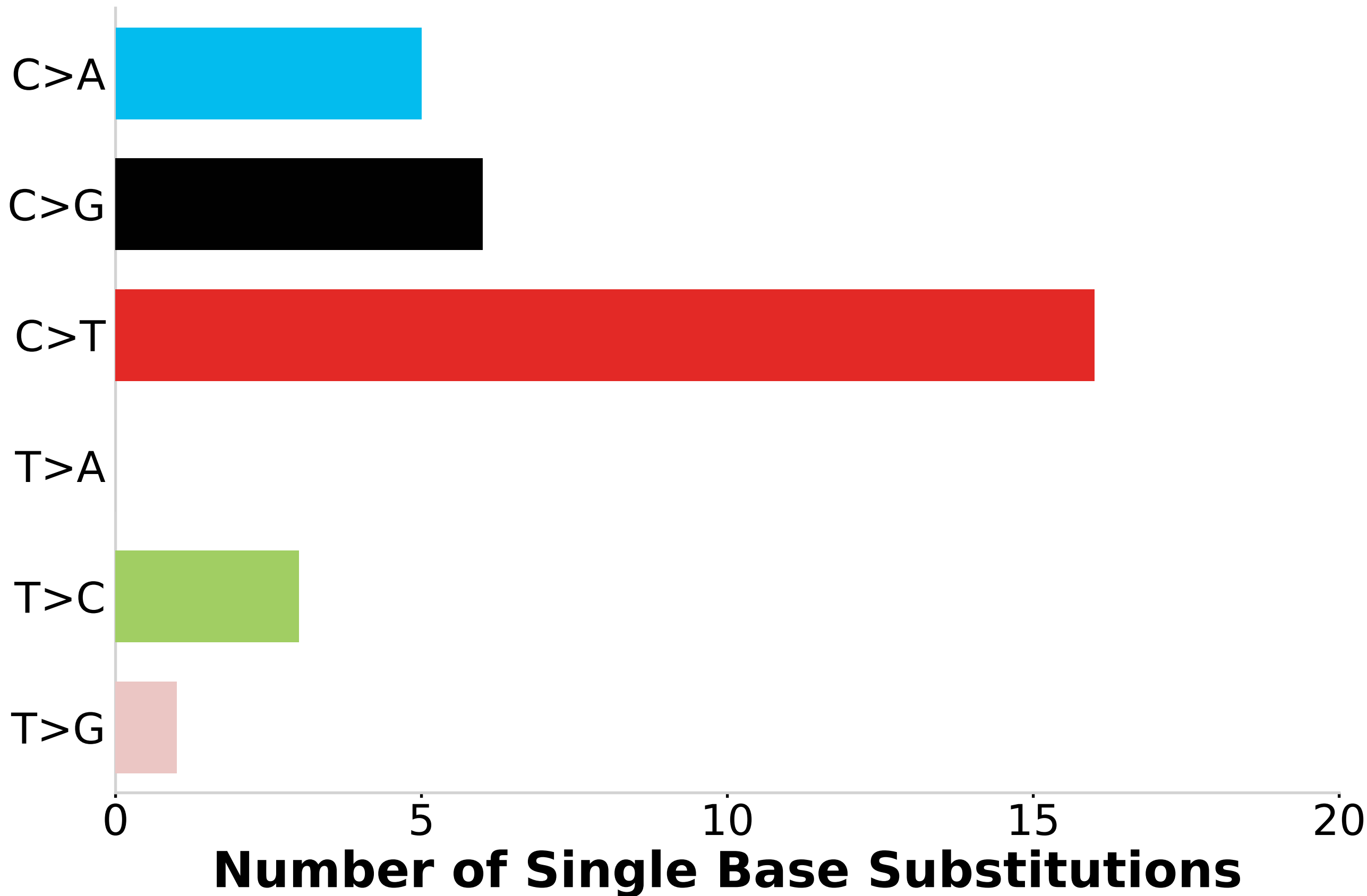
TCGA-E5-A4TZ-01A-11D-A31L-08: 119 sub



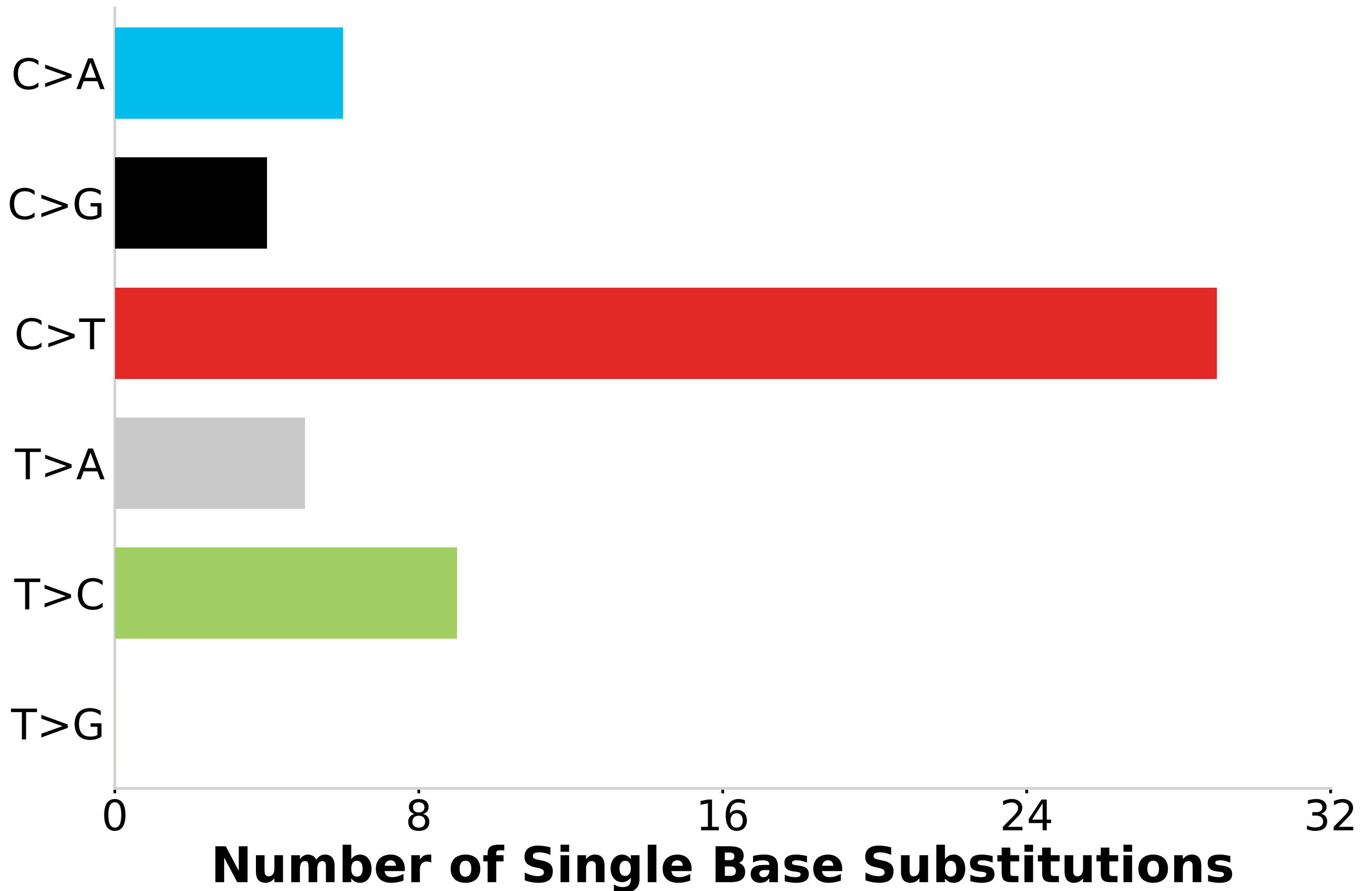
TCGA-E5-A4U1-01A-11D-A31L-08: 170 sub



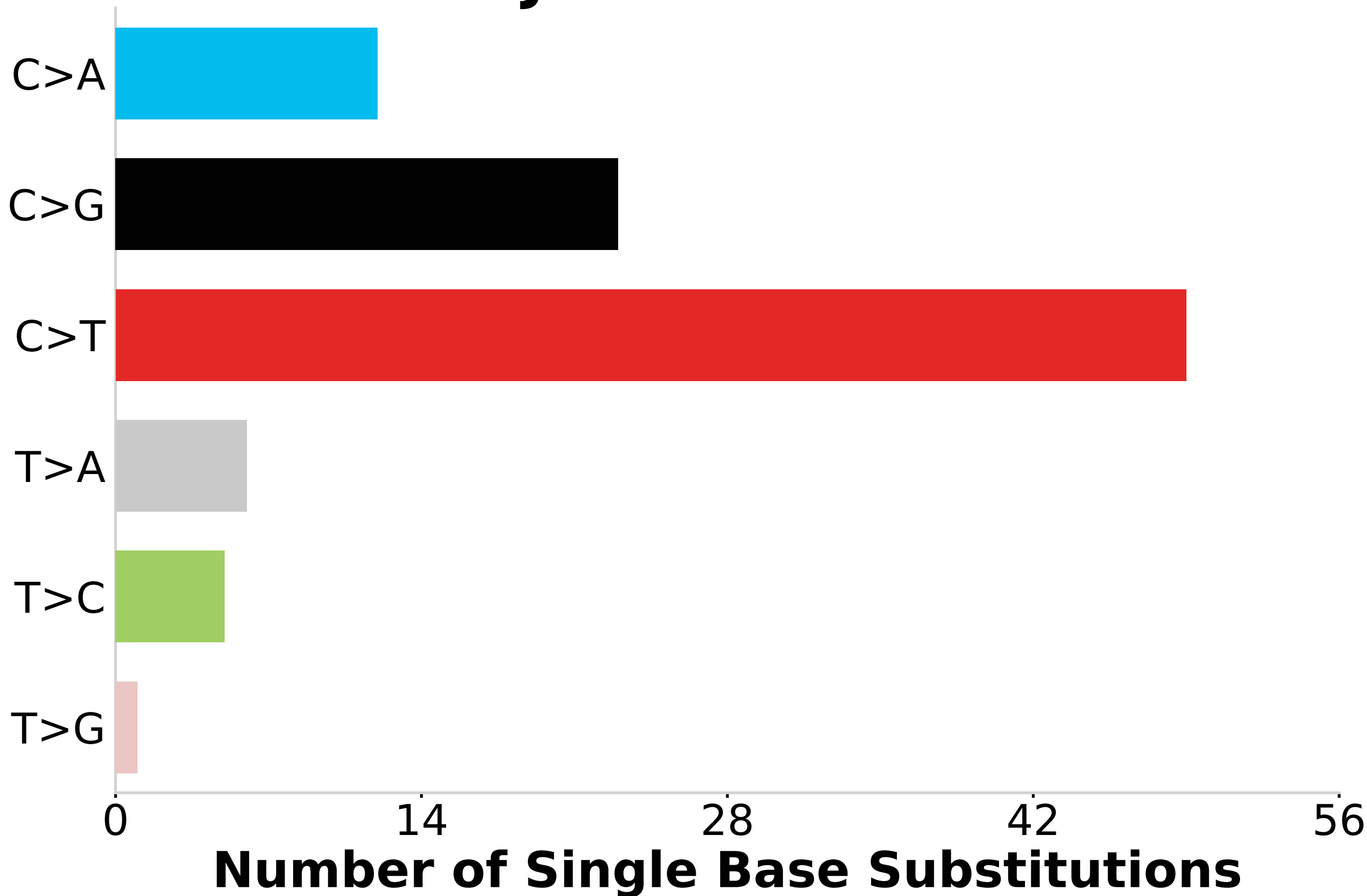
TCGA-E7-A3X6-01A-12D-A22Z-08: 31 subs



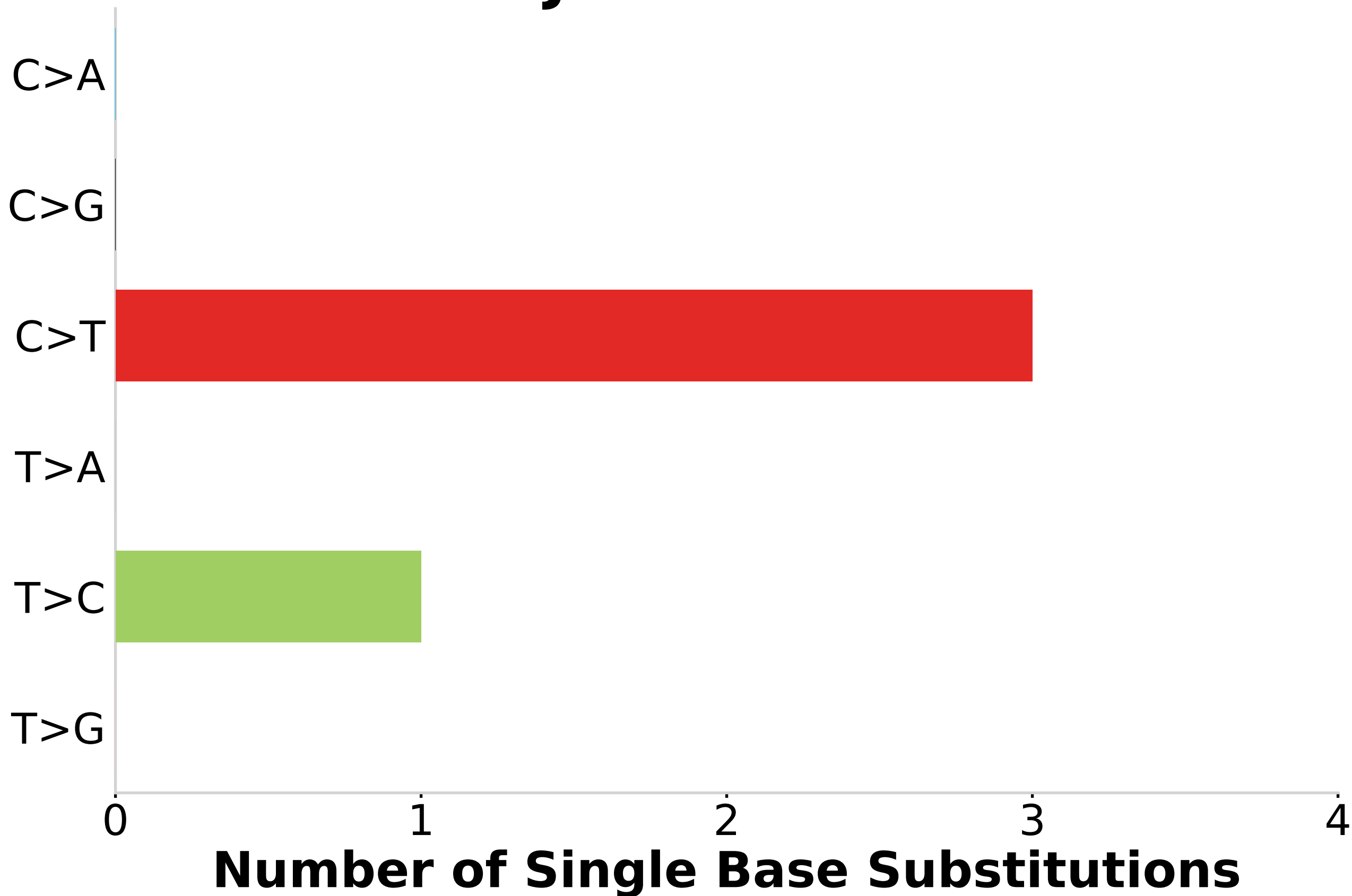
TCGA-E7-A3Y1-01A-11D-A22Z-08: 53 subs



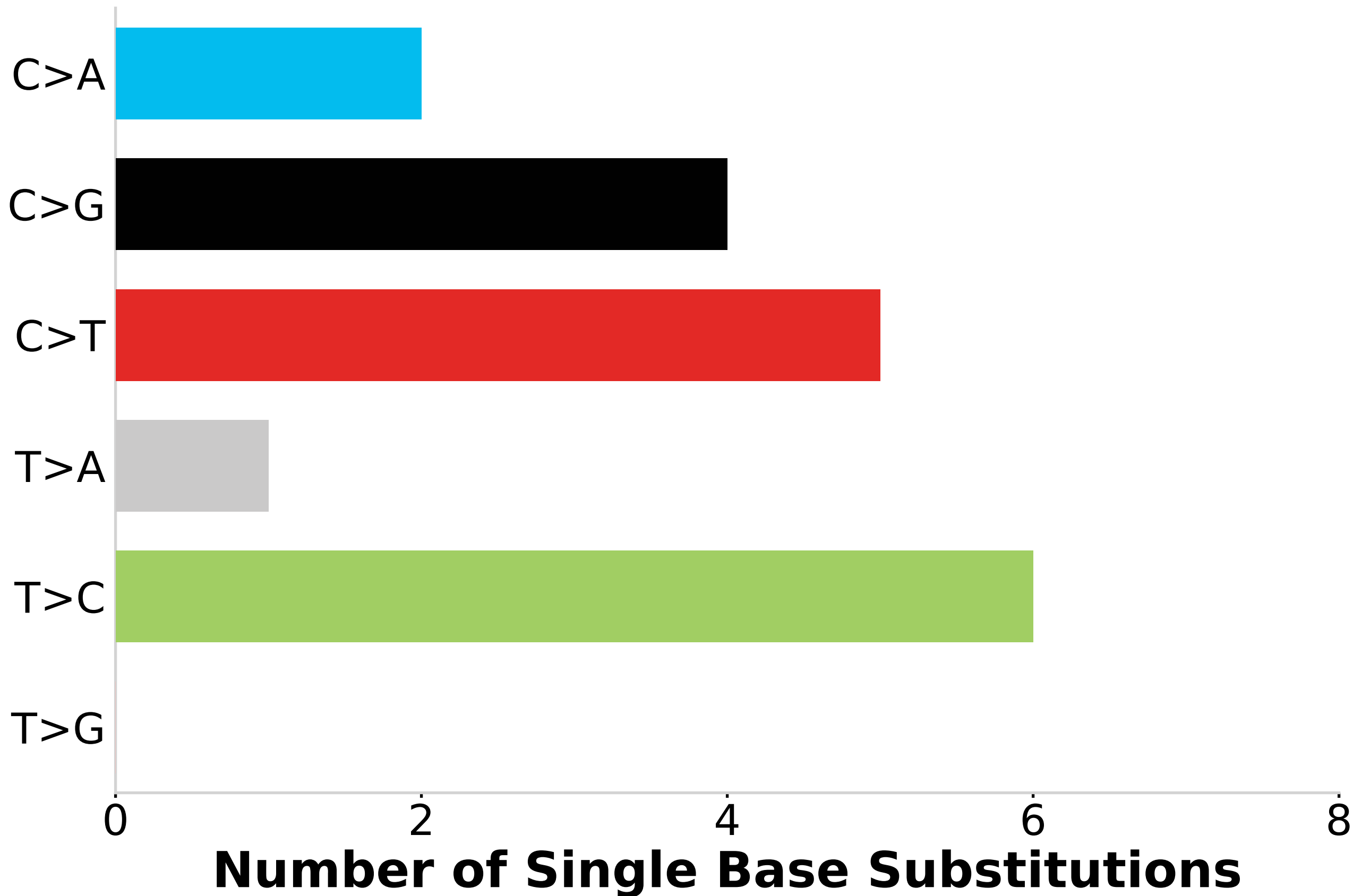
TCGA-E7-A4IJ-01A-31D-A26M-08: 96 subs



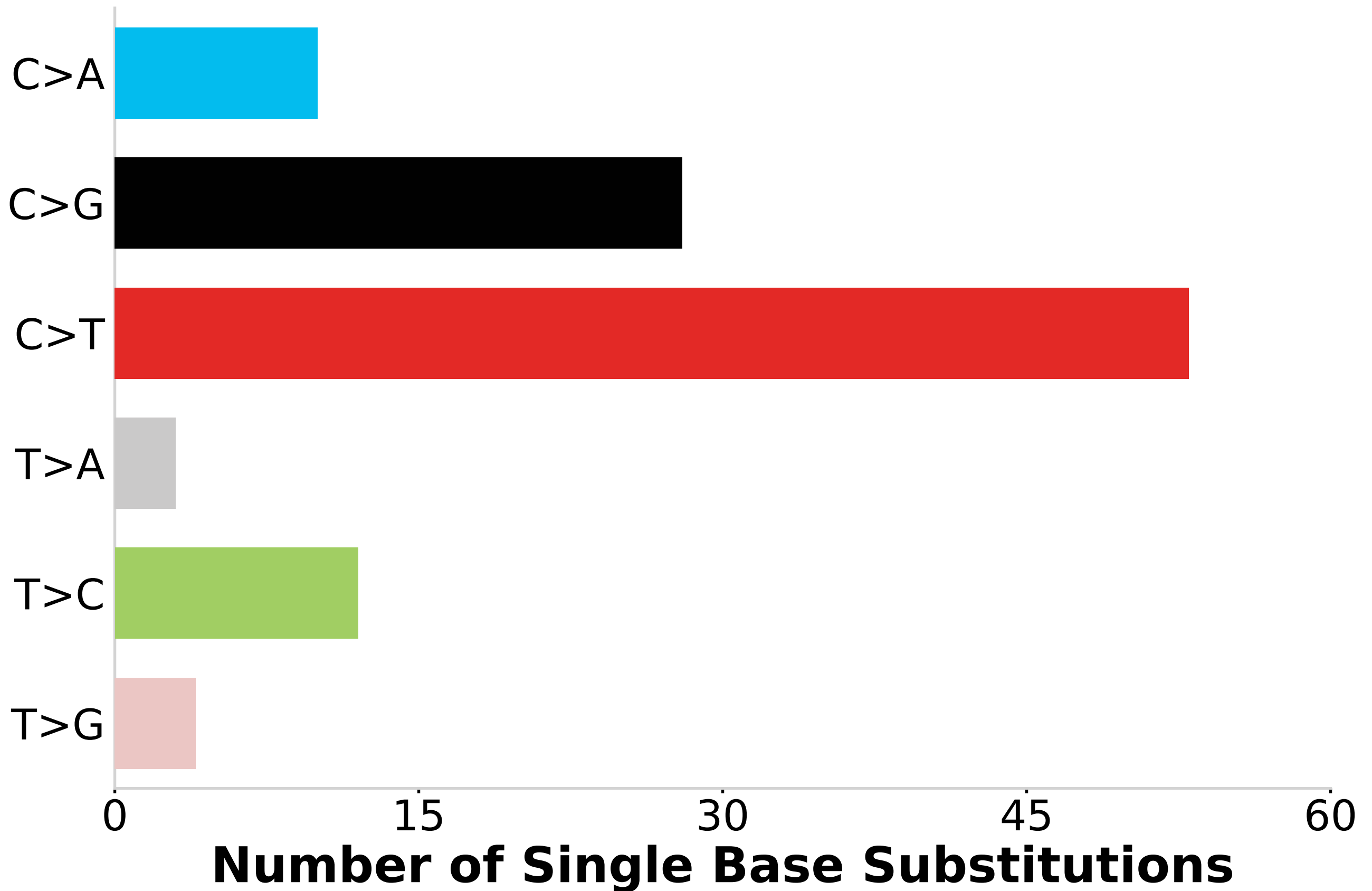
TCGA-E7-A4XJ-01A-11D-A26M-08: 4 subs



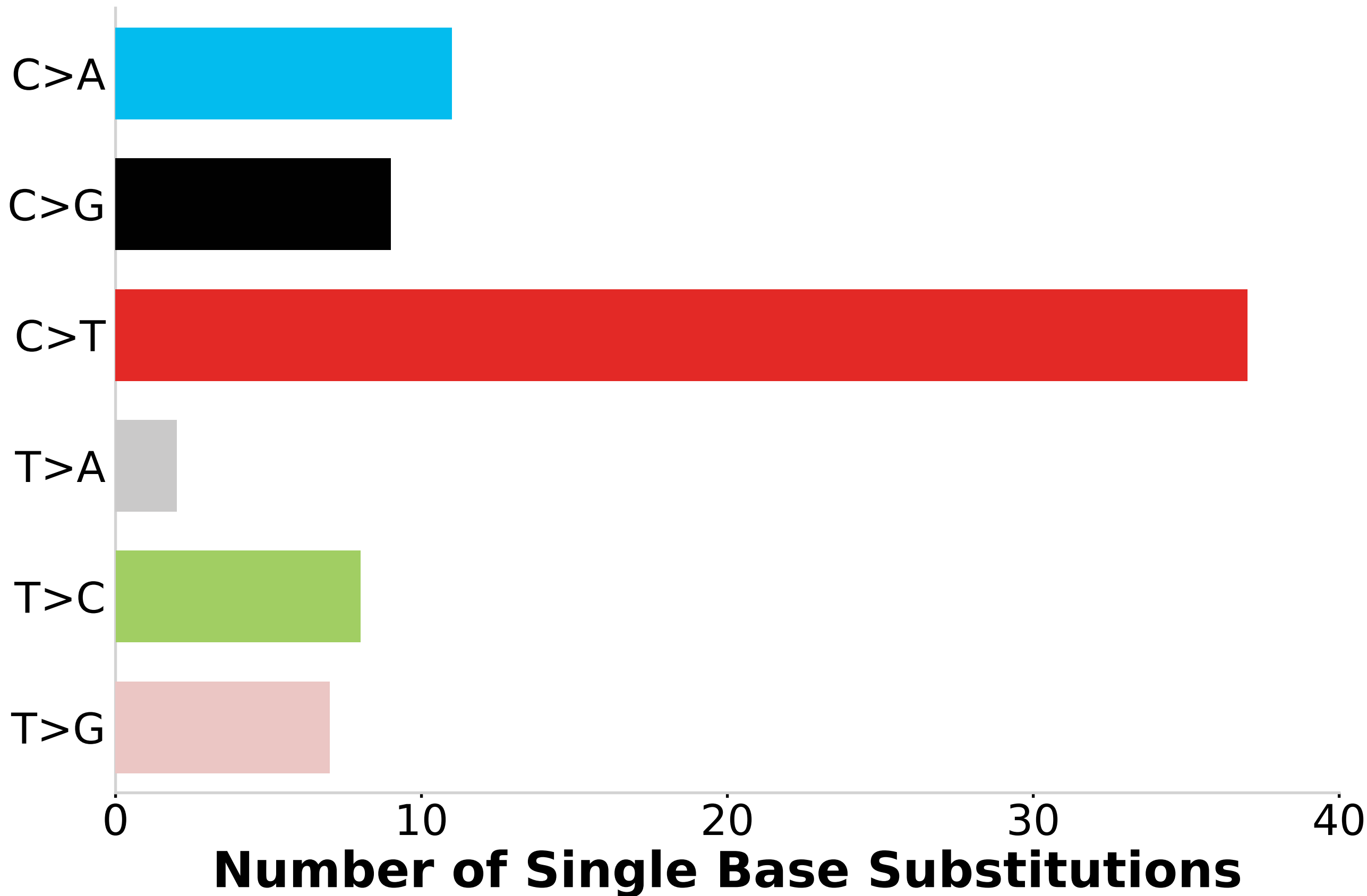
TCGA-E7-A519-01A-11D-A26M-08: 18 subs



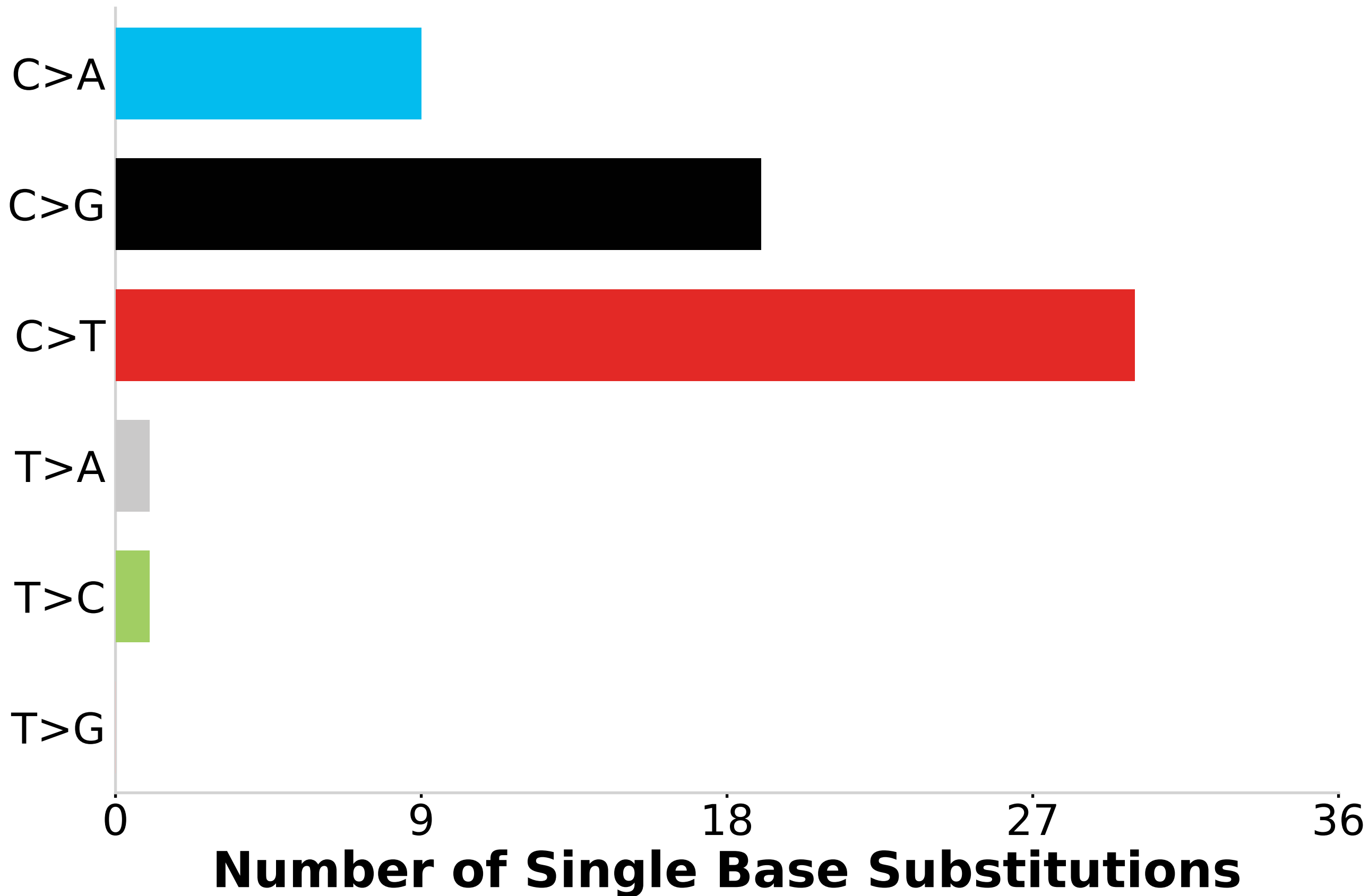
TCGA-E7-A541-01A-11D-A26M-08: 110 sub



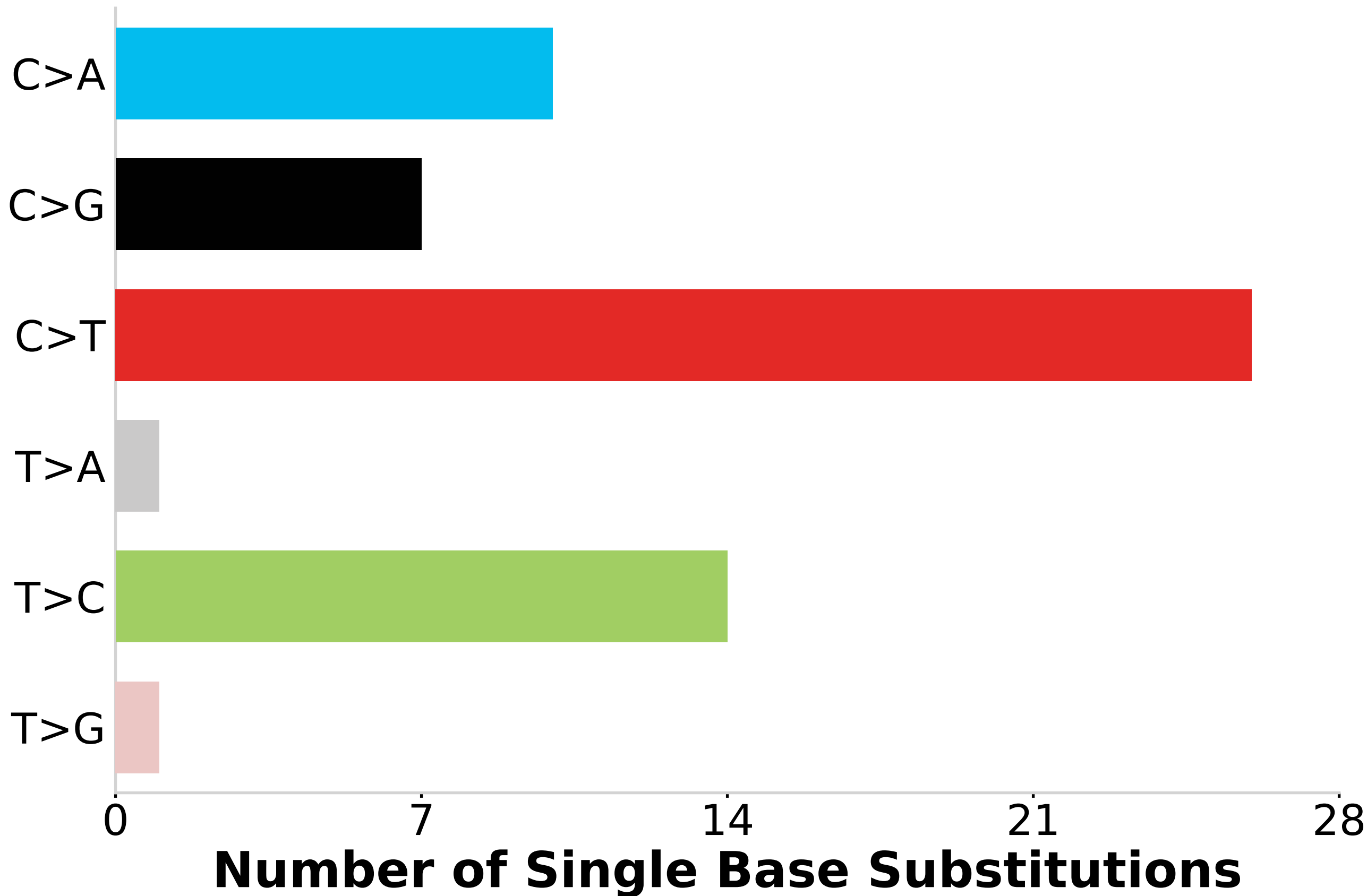
TCGA-E7-A5KE-01A-11D-A289-08: 74 subs



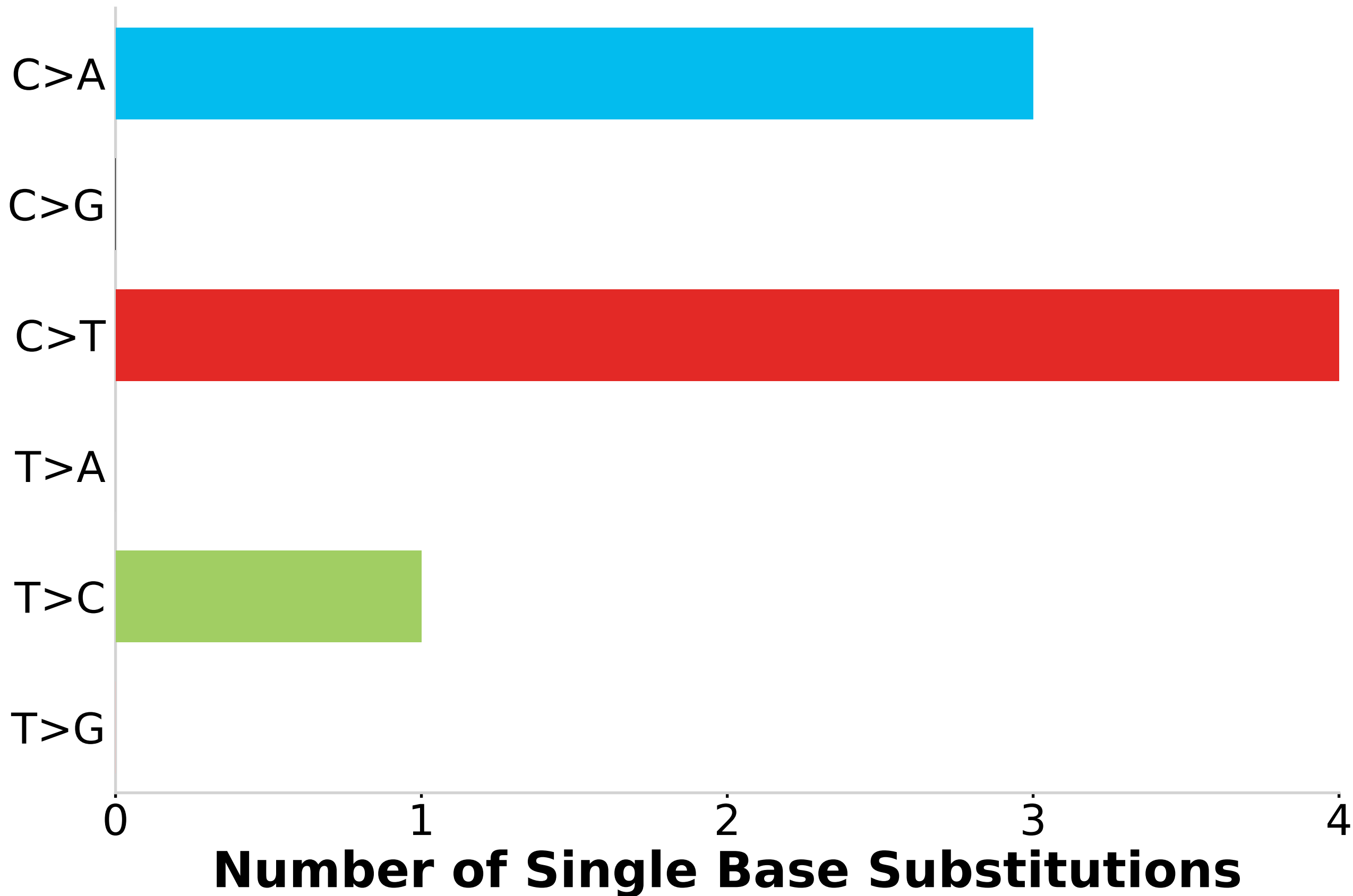
TCGA-E7-A5KF-01A-11D-A289-08: 60 subs



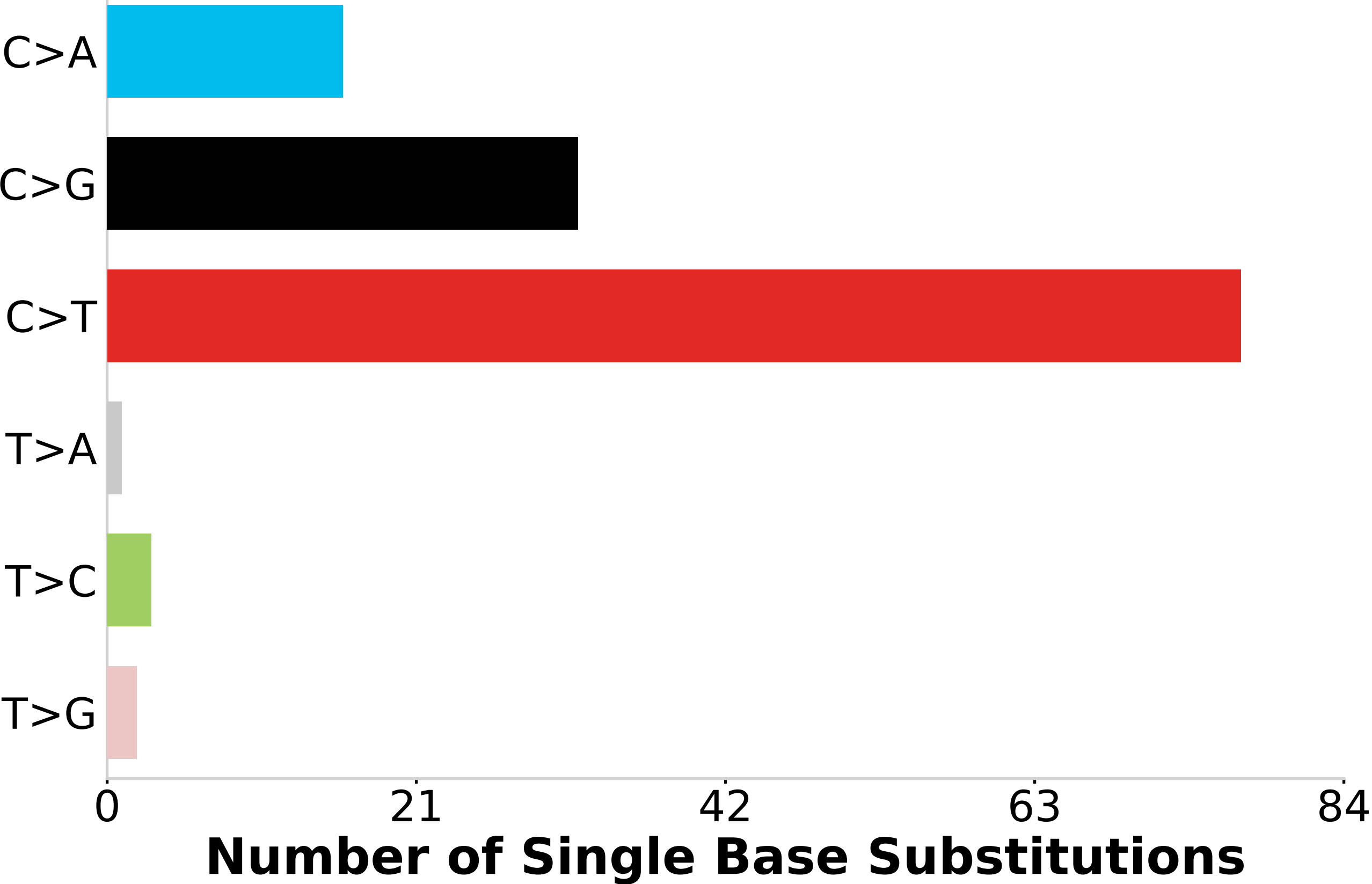
TCGA-E7-A677-01A-11D-A30E-08: 59 subs



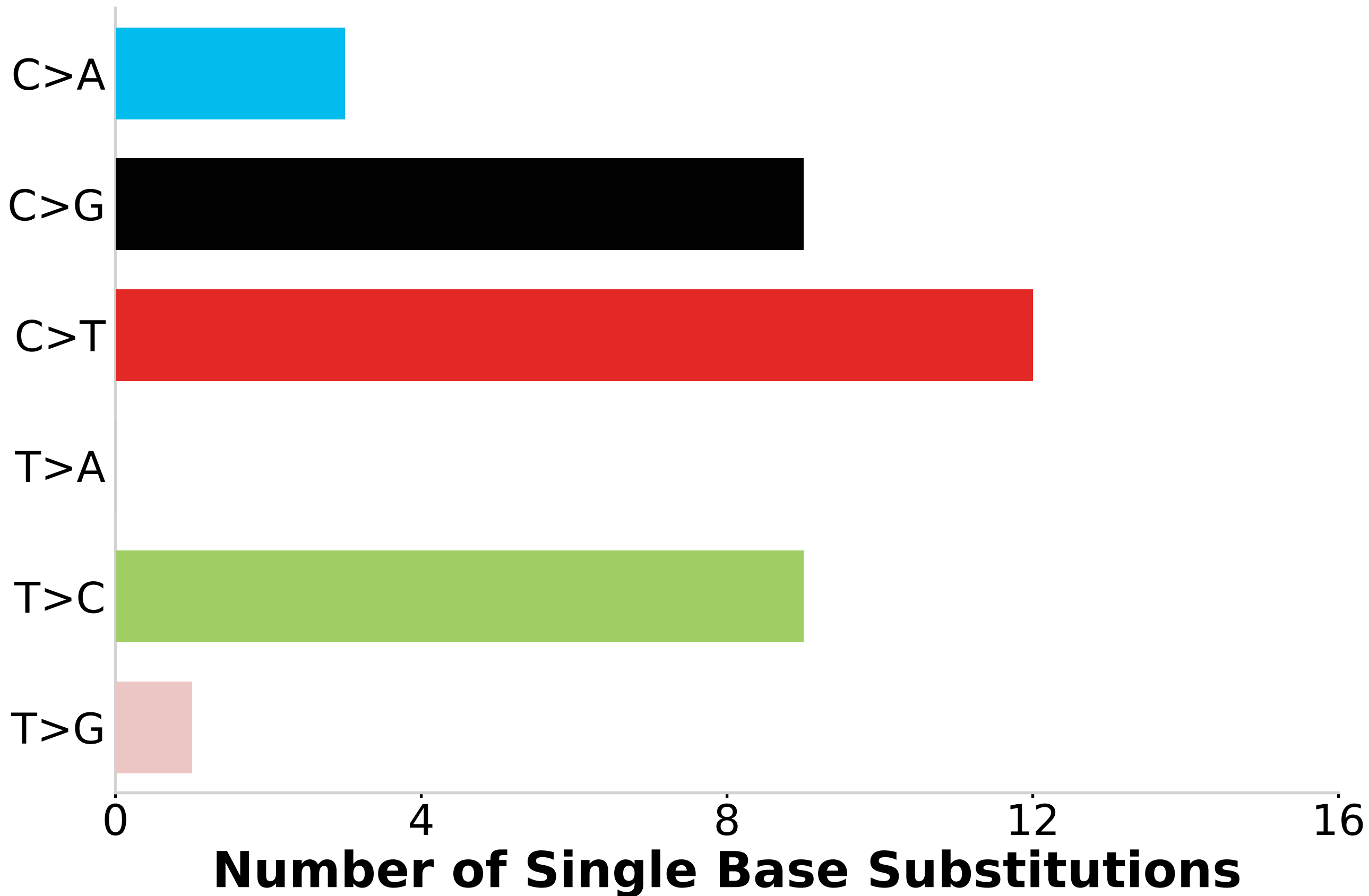
TCGA-E7-A678-01A-11D-A30E-08: 8 subs



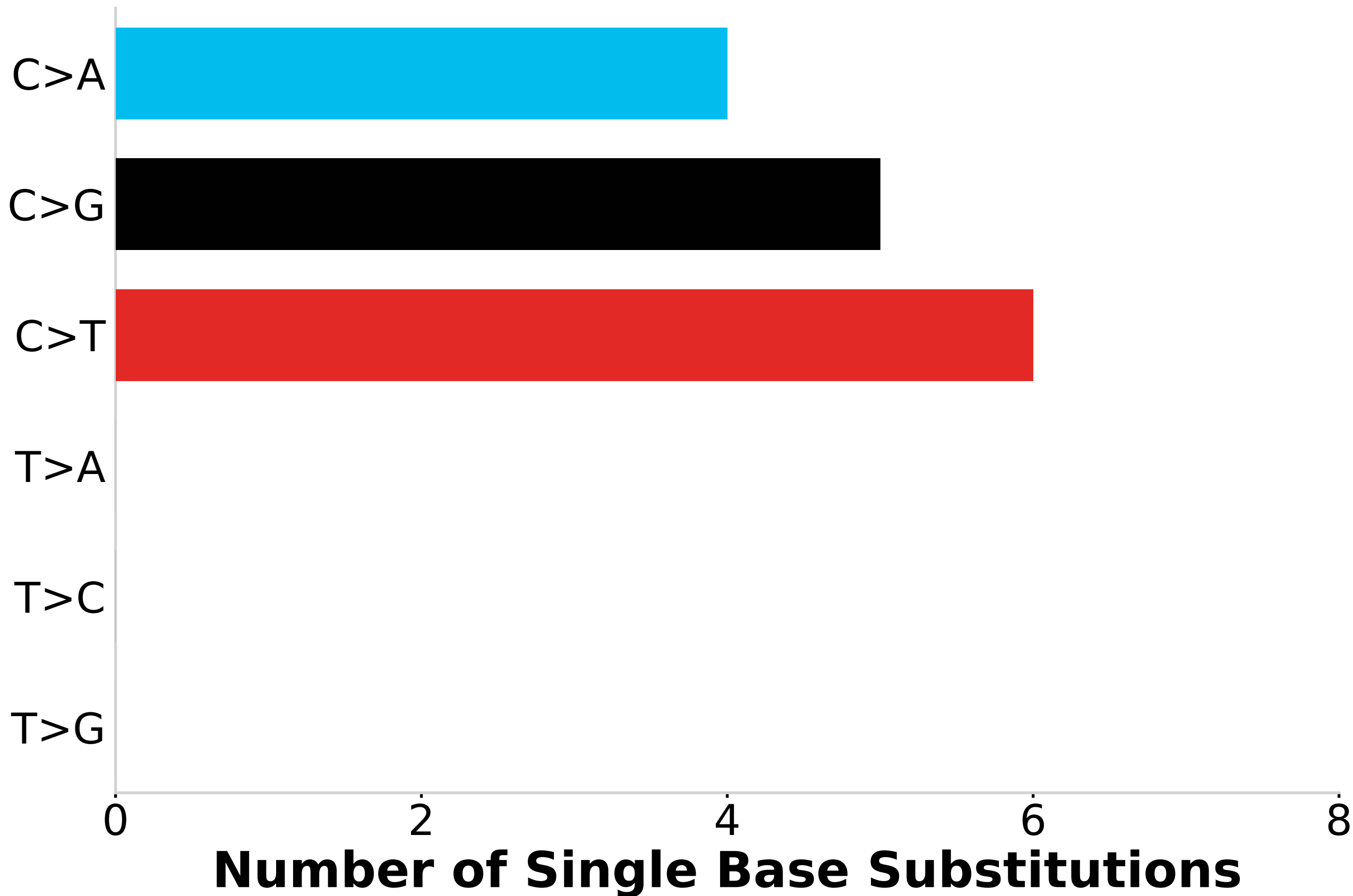
TCGA-E7-A6MD-01A-41D-A34U-08: 131 sub



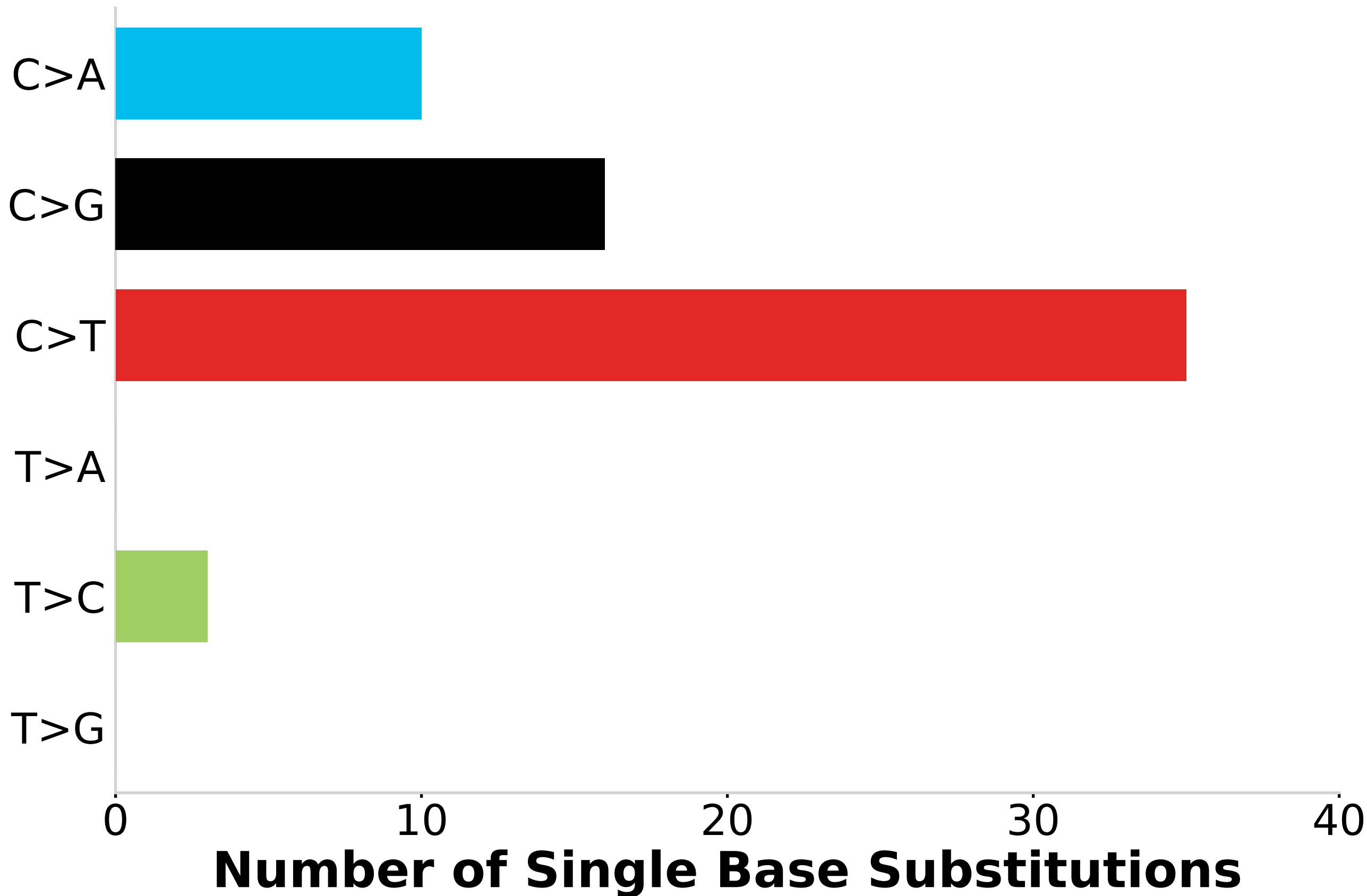
TCGA-E7-A6ME-01A-22D-A32B-08: 34 subs



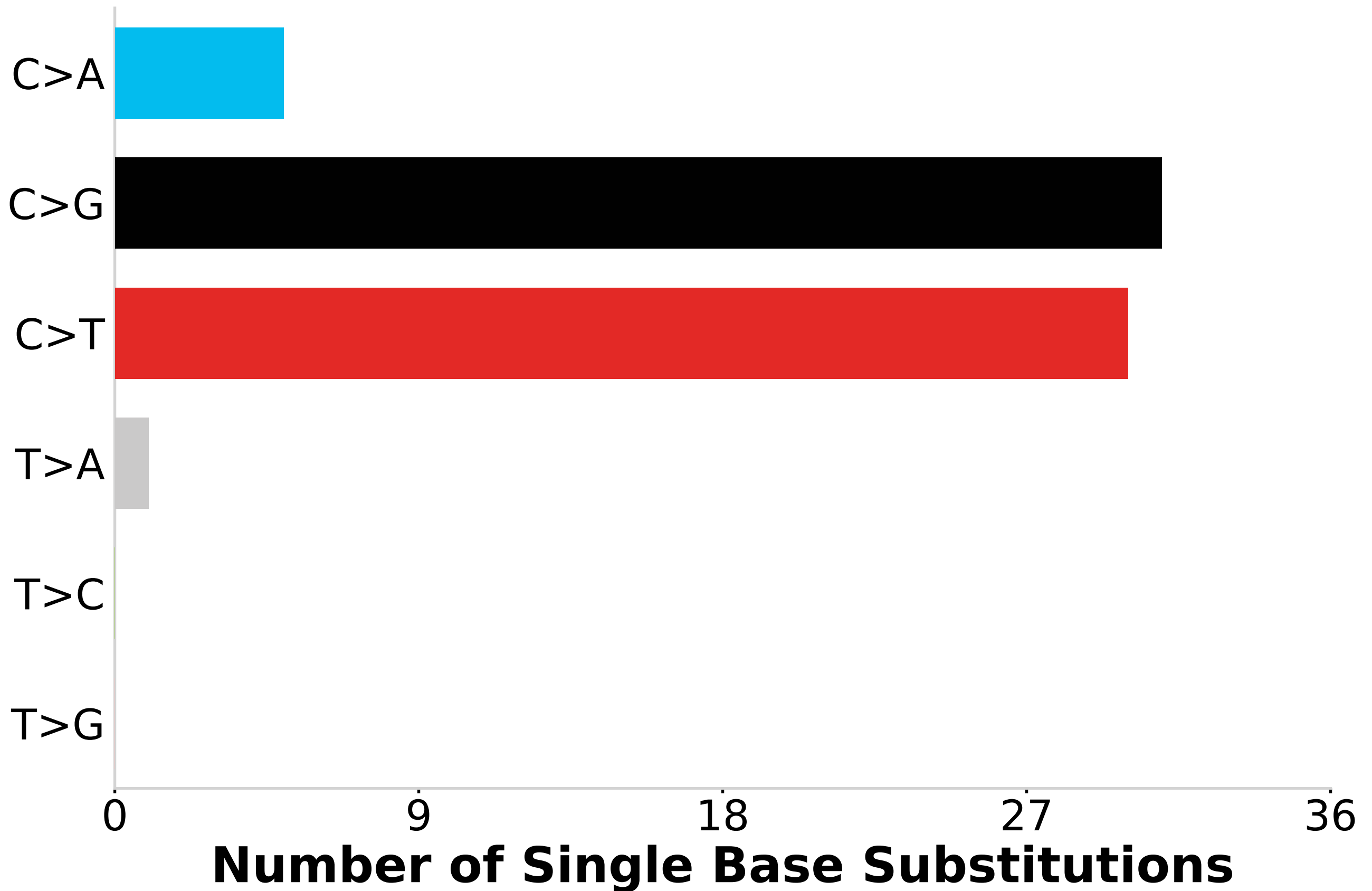
TCGA-E7-A6MF-01A-12D-A32B-08: 15 subs



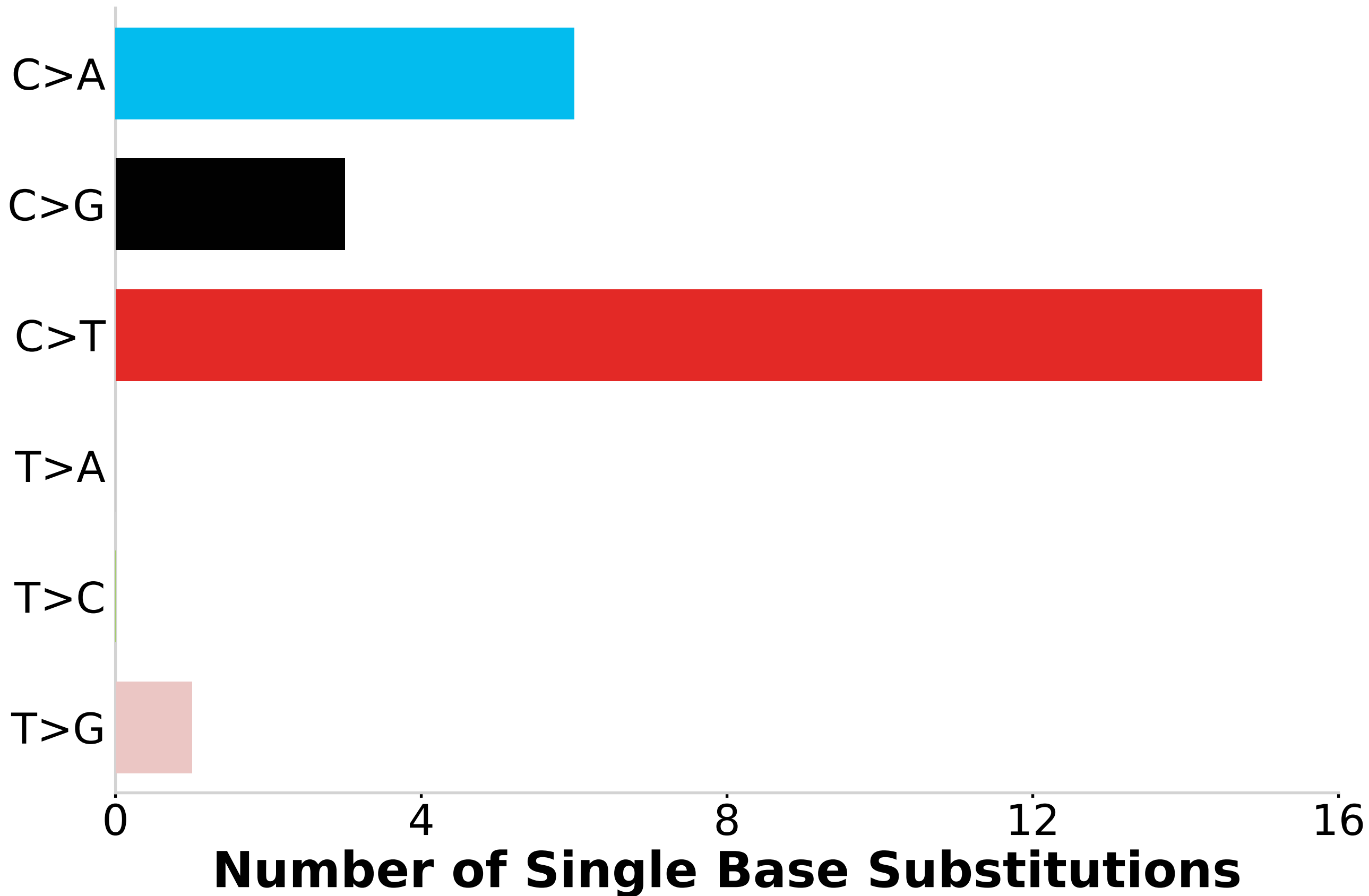
TCGA-E7-A7DU-01A-11D-A32B-08: 64 subs



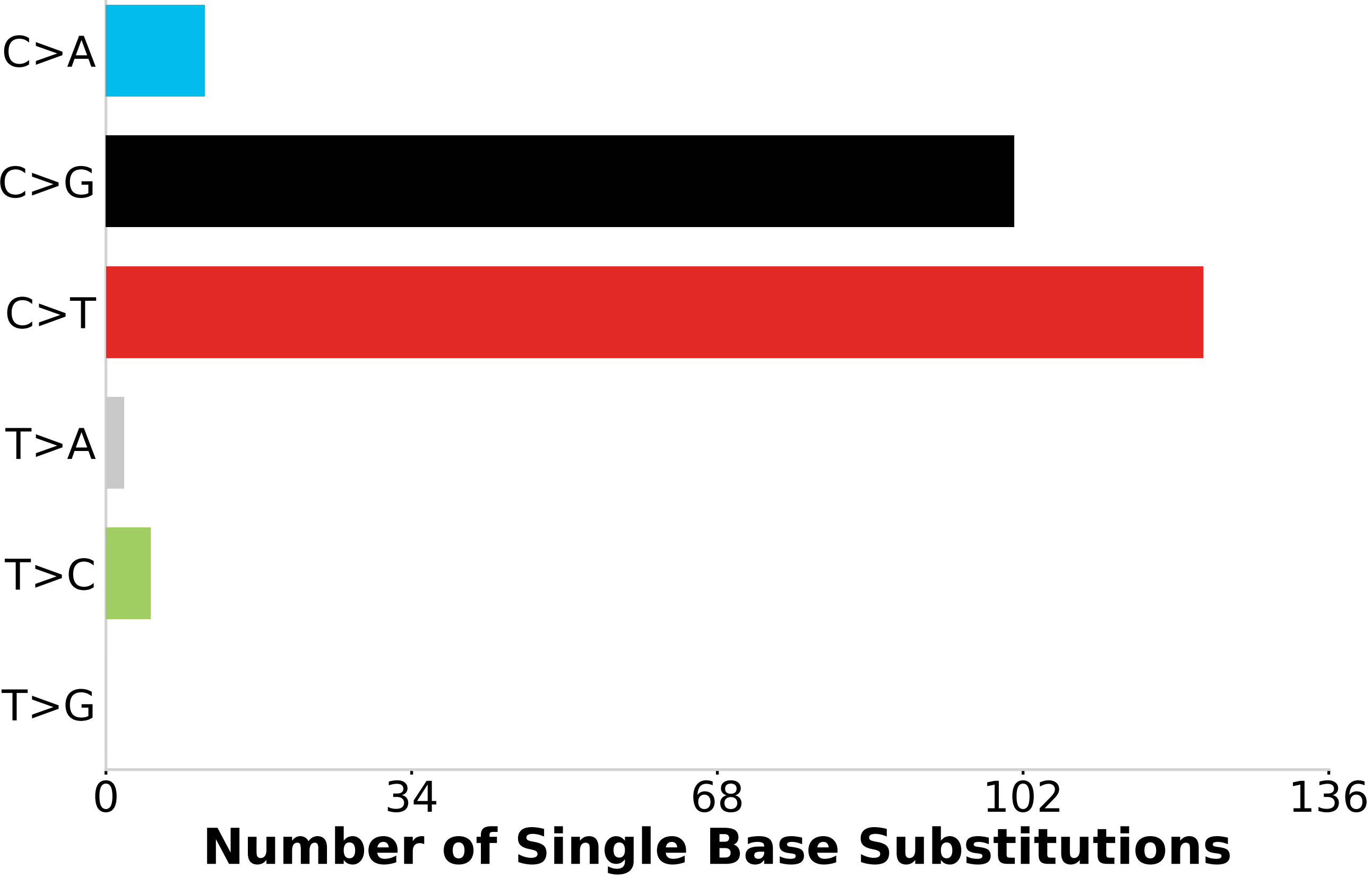
TCGA-E7-A7DV-01A-11D-A339-08: 67 subs



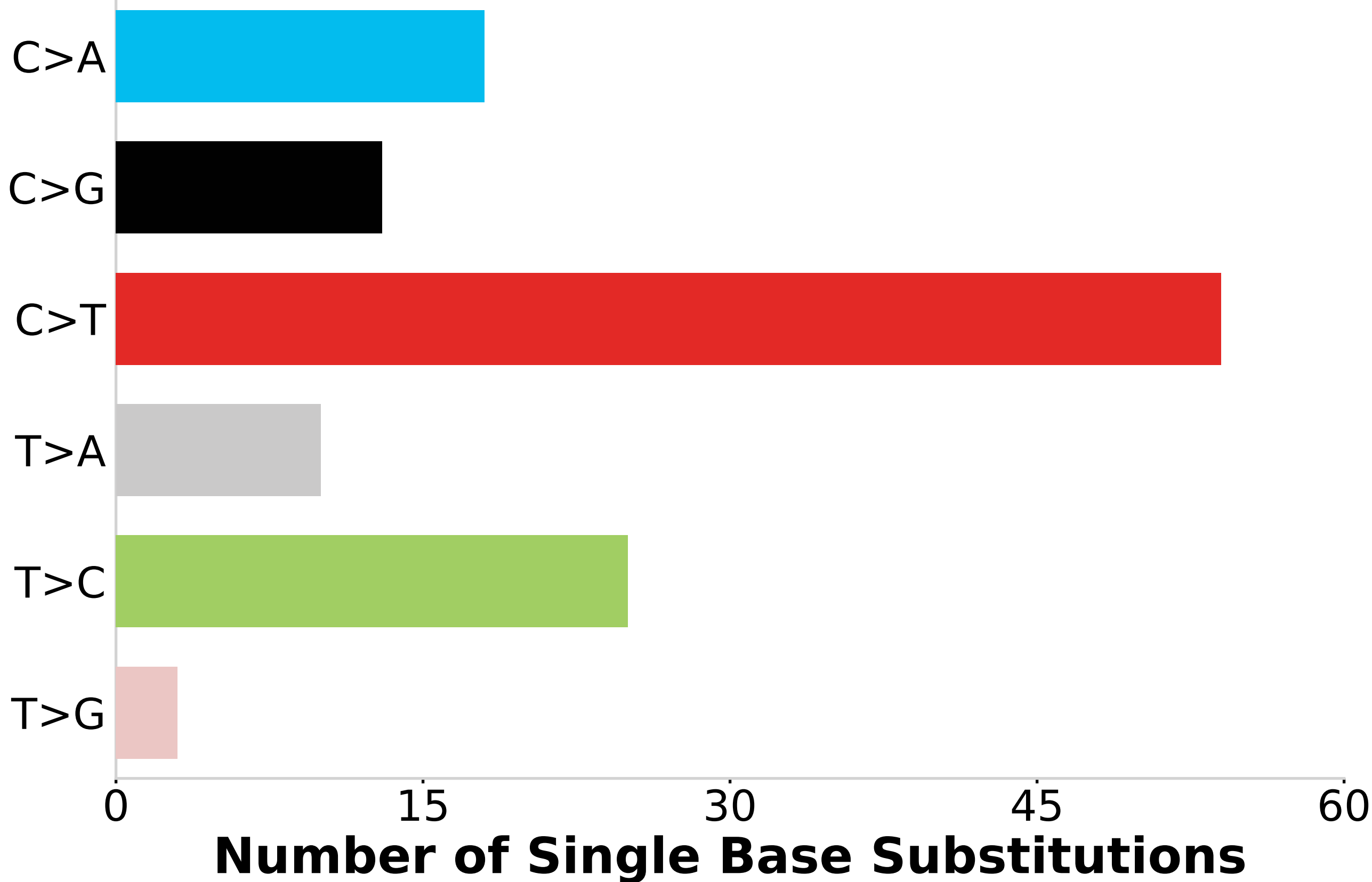
TCGA-E7-A7PW-01A-11D-A34U-08: 25 subs



TCGA-E7-A7XN-01A-11D-A34U-08: 241 sub



TCGA-E7-A85H-01A-11D-A34U-08: 123 sub



TCGA-E7-A807-01A-11D-A364-08: 7 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

1

2

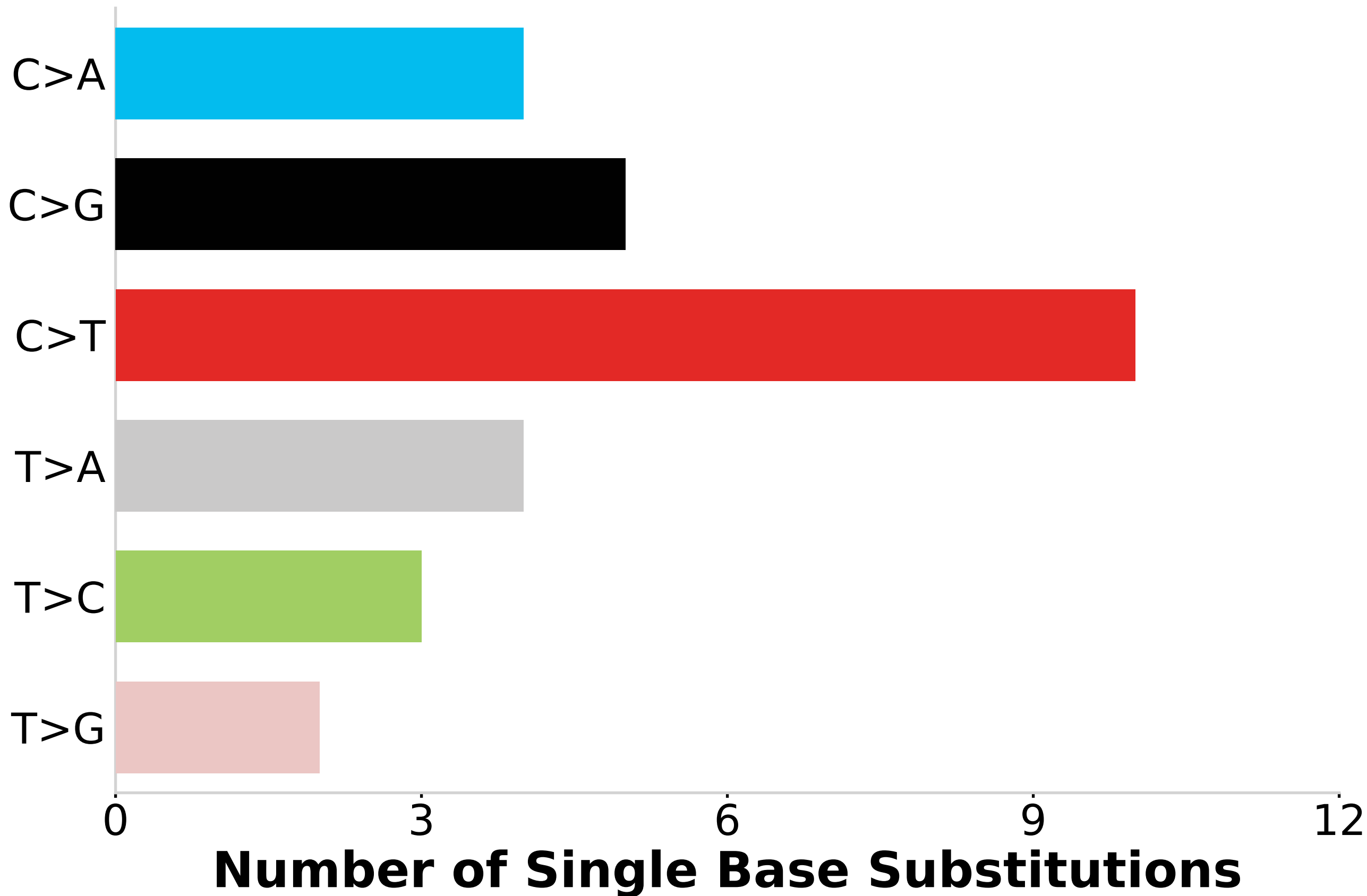
3

4

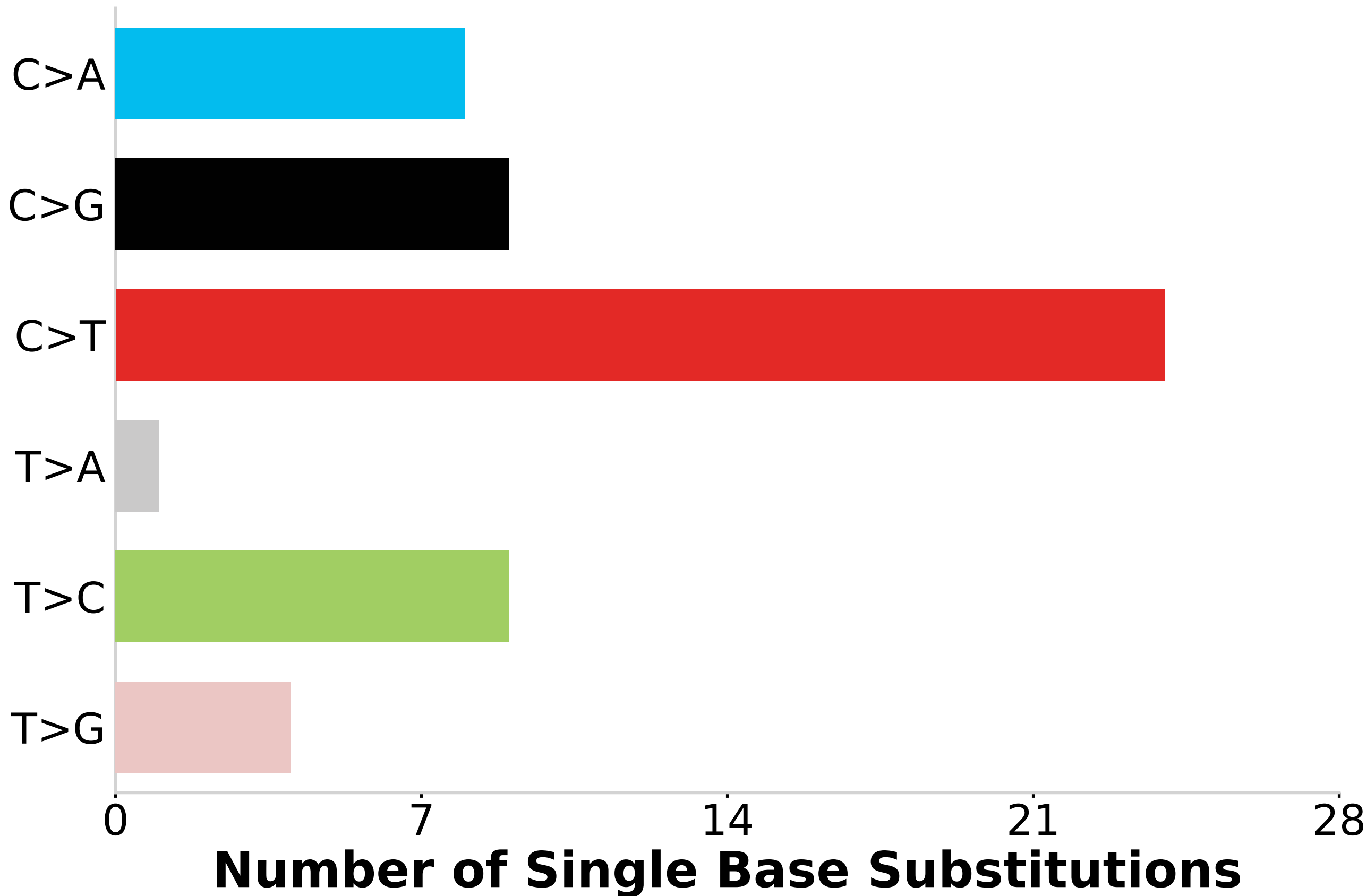
Number of Single Base Substitutions



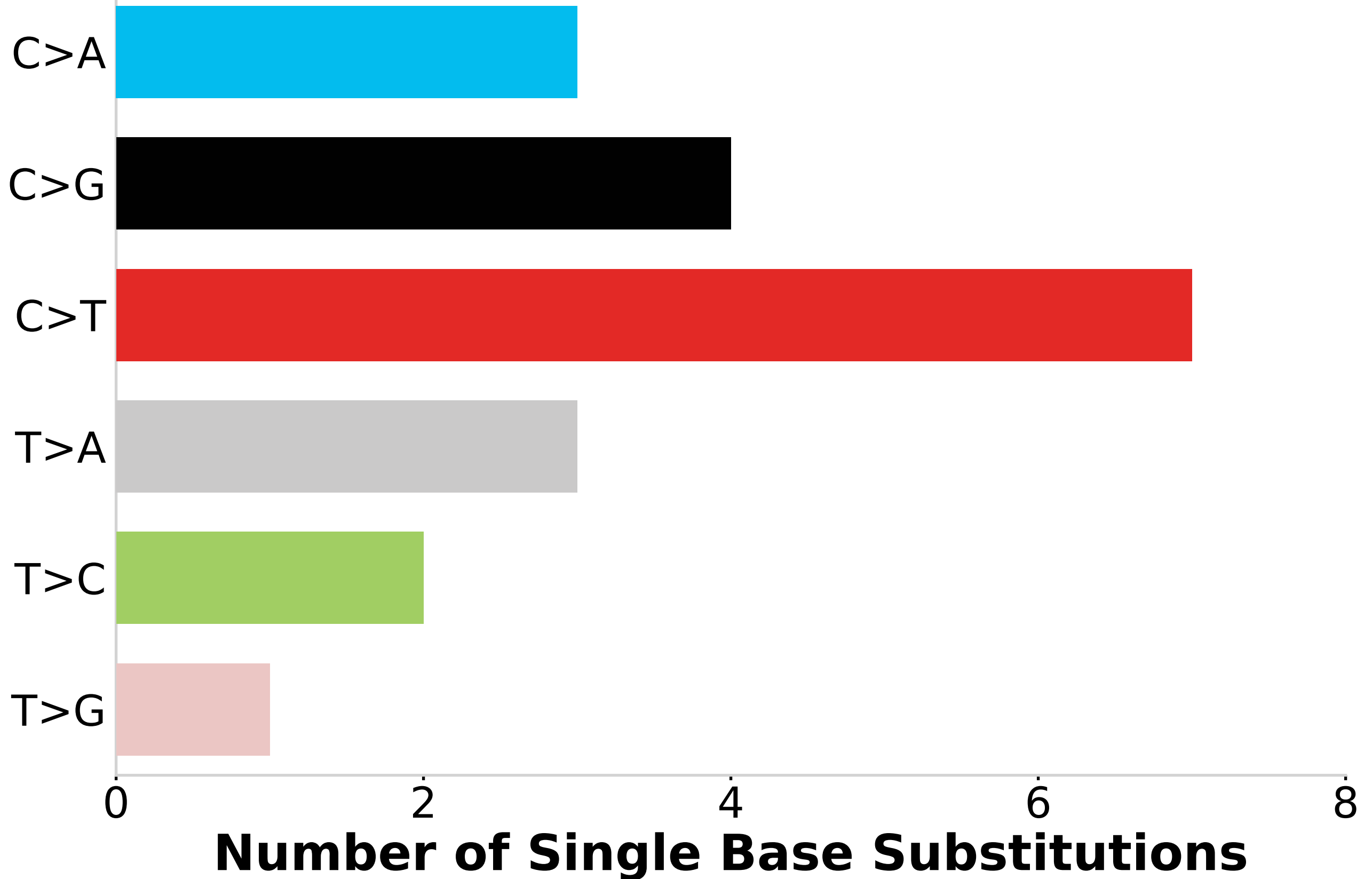
TCGA-E7-A808-01A-11D-A364-08: 28 subs



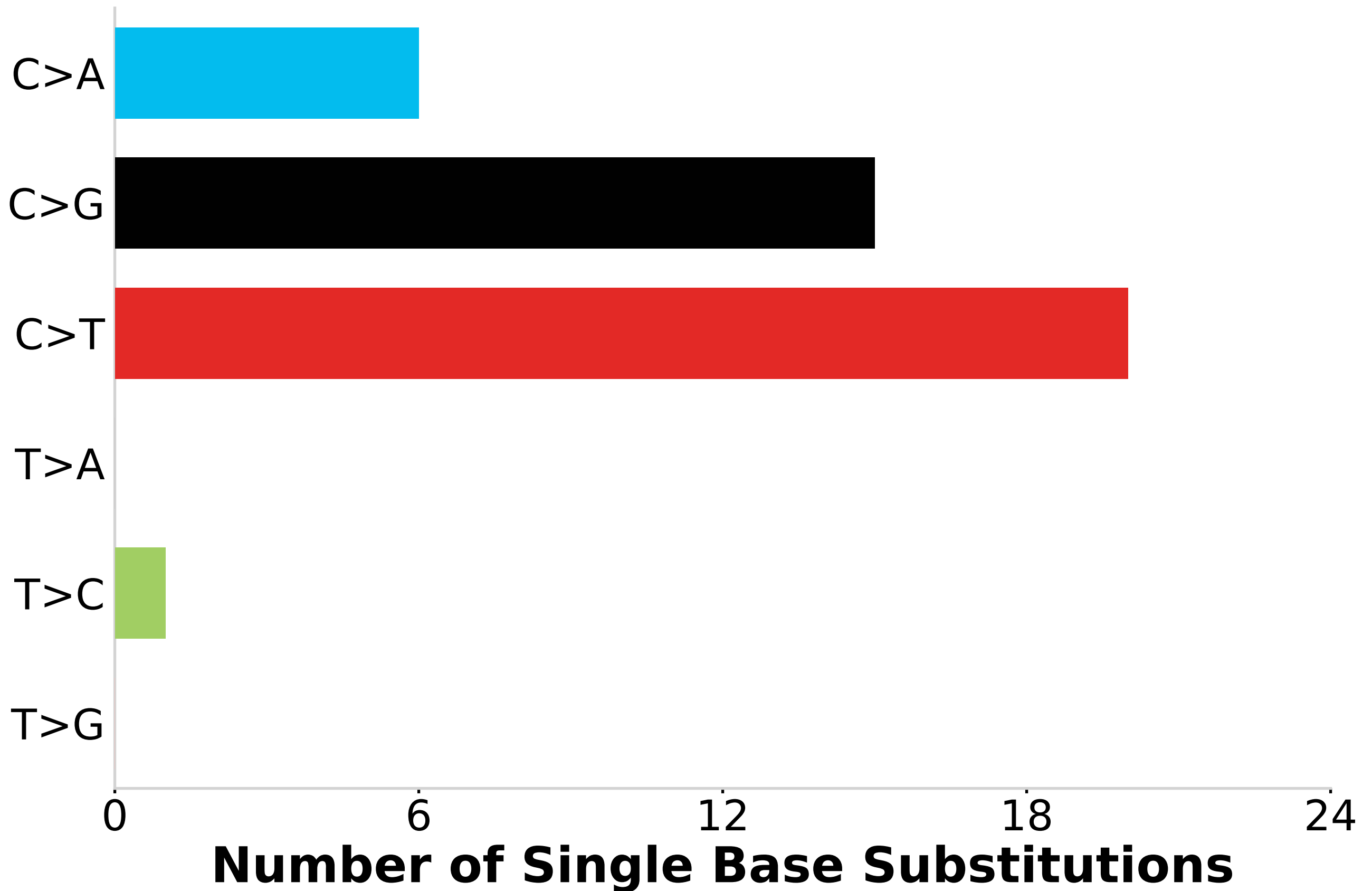
TCGA-E7-A97P-01A-11D-A38G-08: 55 subs



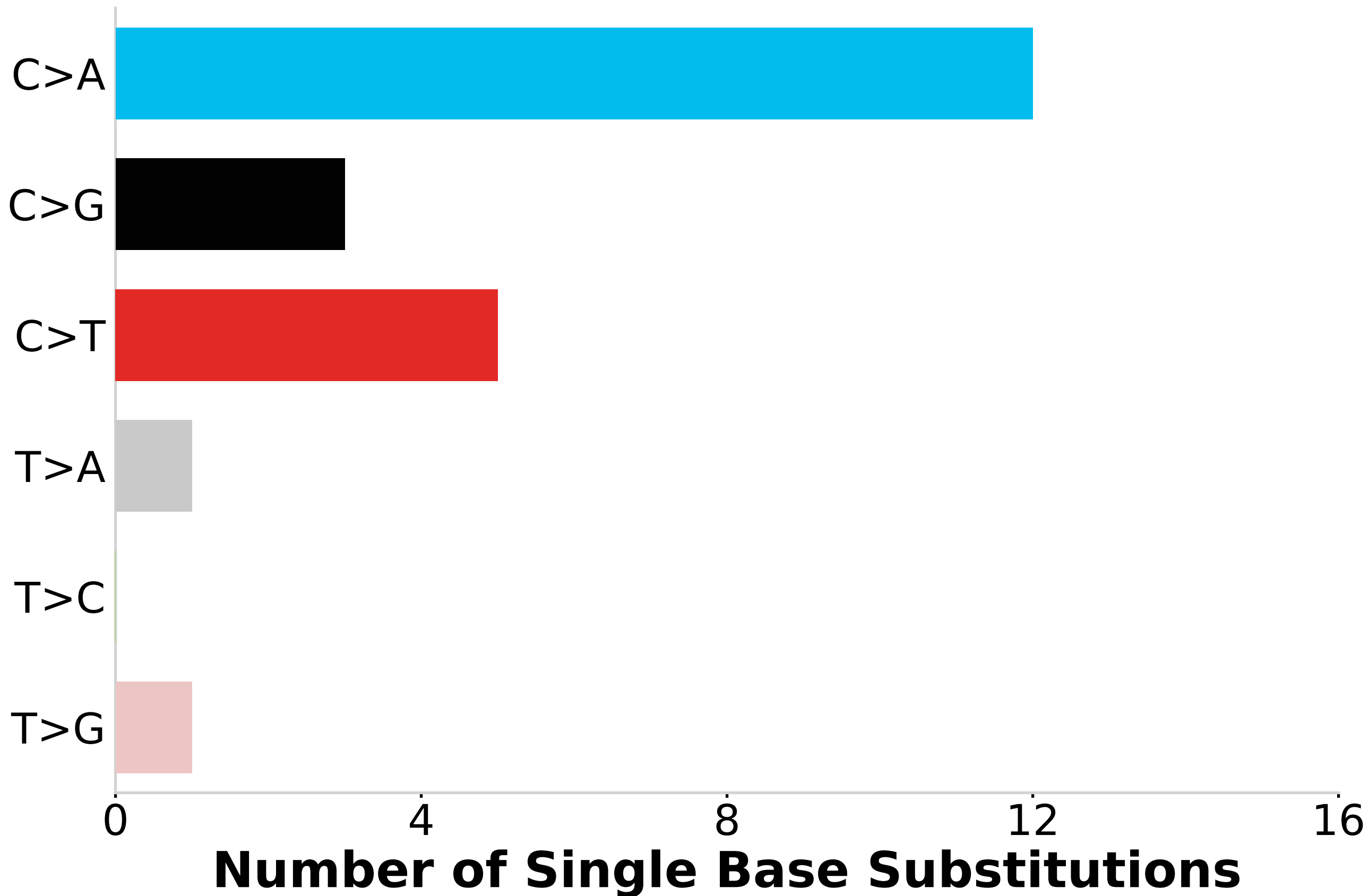
TCGA-E7-A97Q-01A-11D-A38G-08: 20 subs



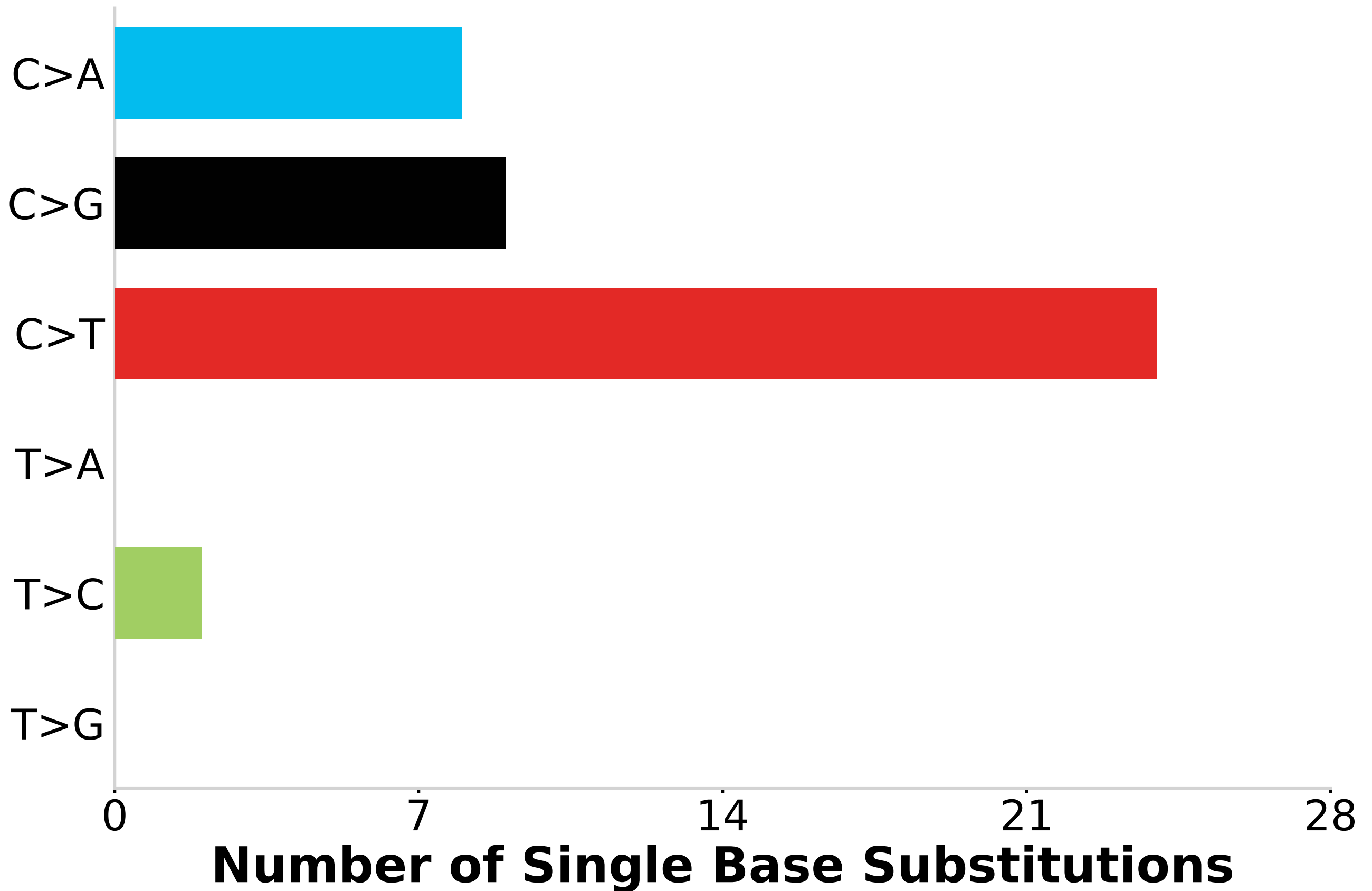
TCGA-FD-A3B3-01A-12D-A202-08: 42 subs



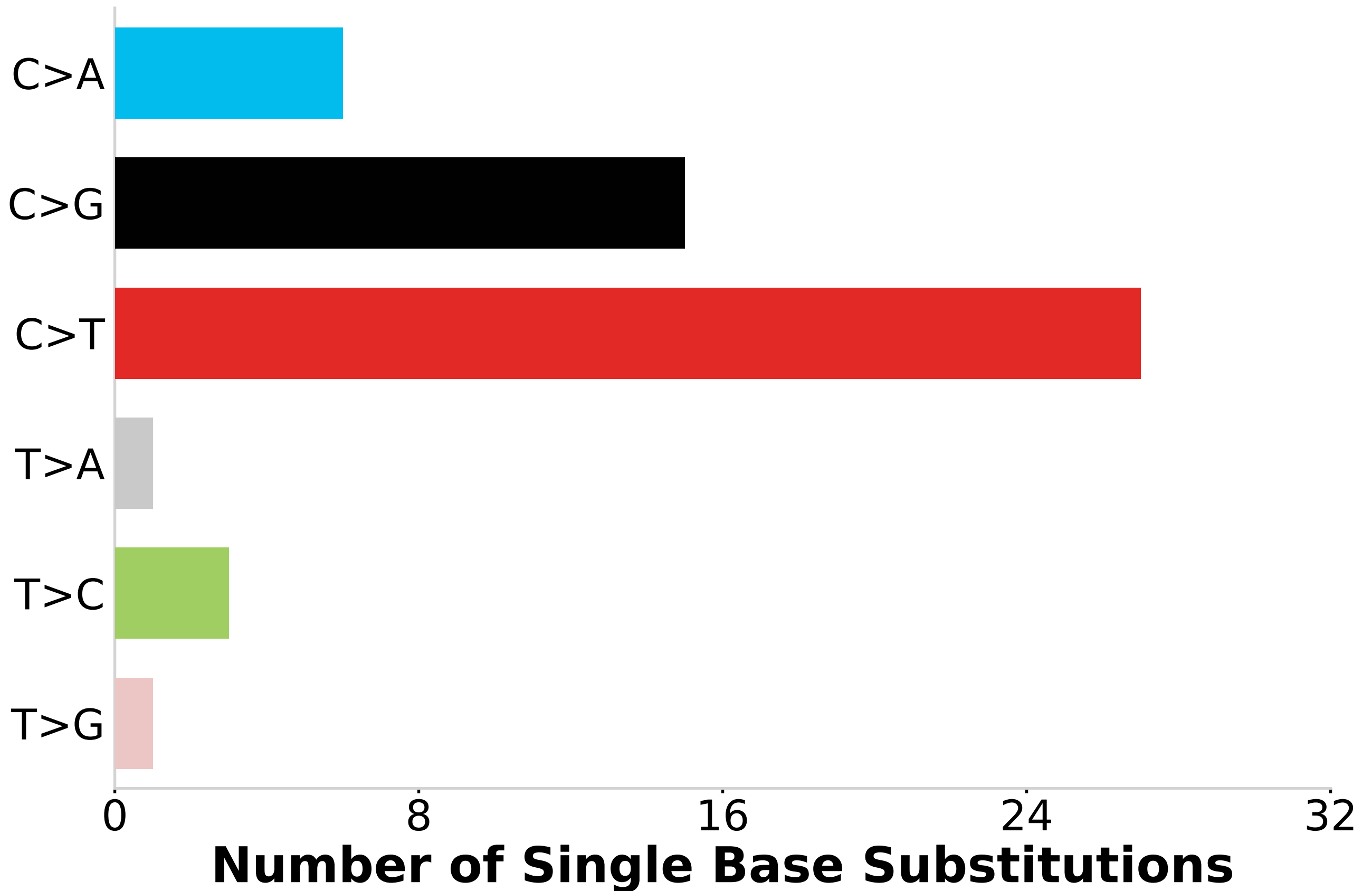
TCGA-FD-A3B4-01A-12D-A202-08: 22 subs



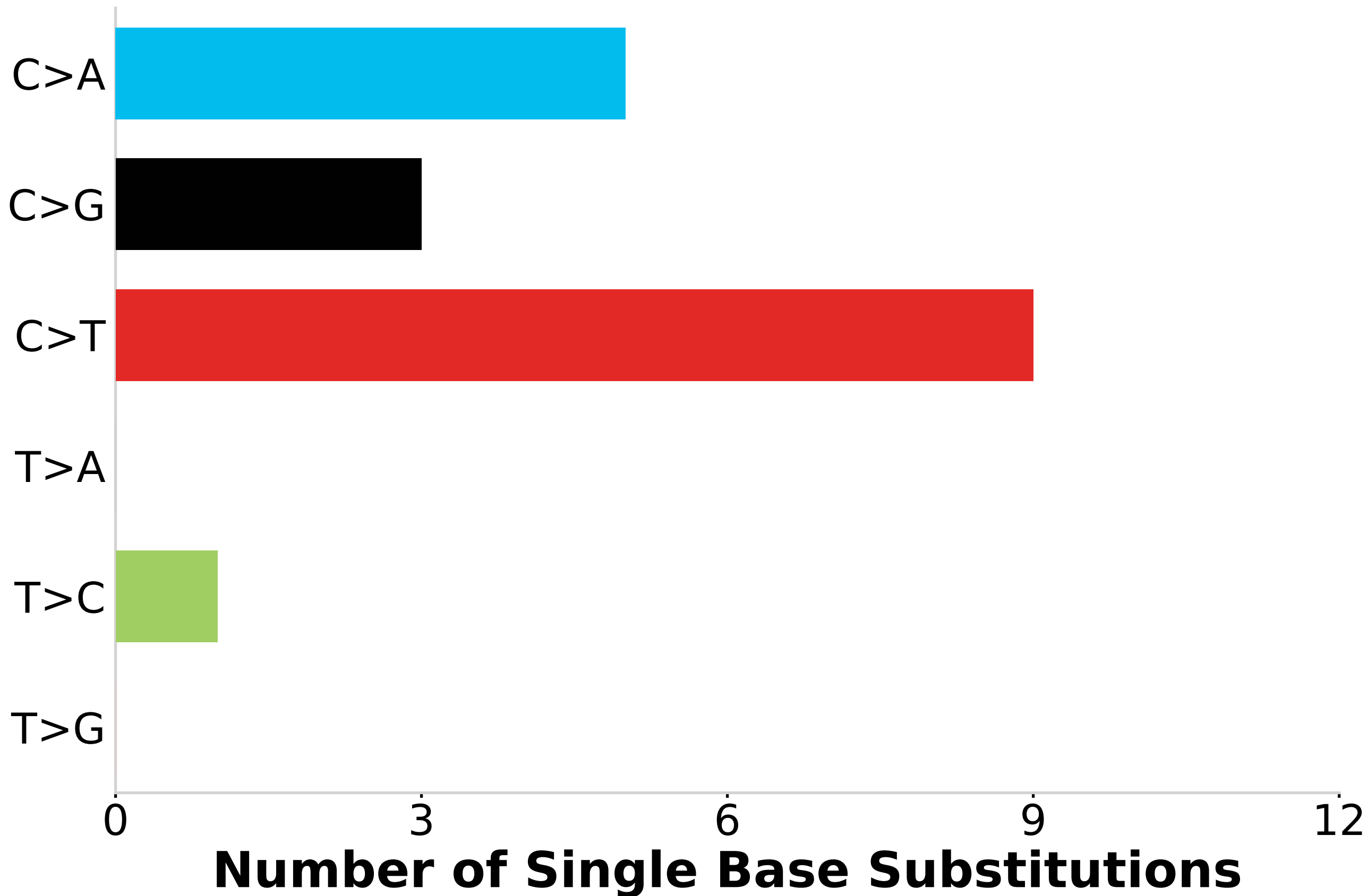
TCGA-FD-A3B5-01A-11D-A20D-08: 43 subs



TCGA-FD-A3B6-01A-21D-A20D-08: 53 subs



TCGA-FD-A3B7-01A-31D-A20D-08: 18 subs



TCGA-FD-A3B8-01A-31D-A20D-08: 5 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

1

2

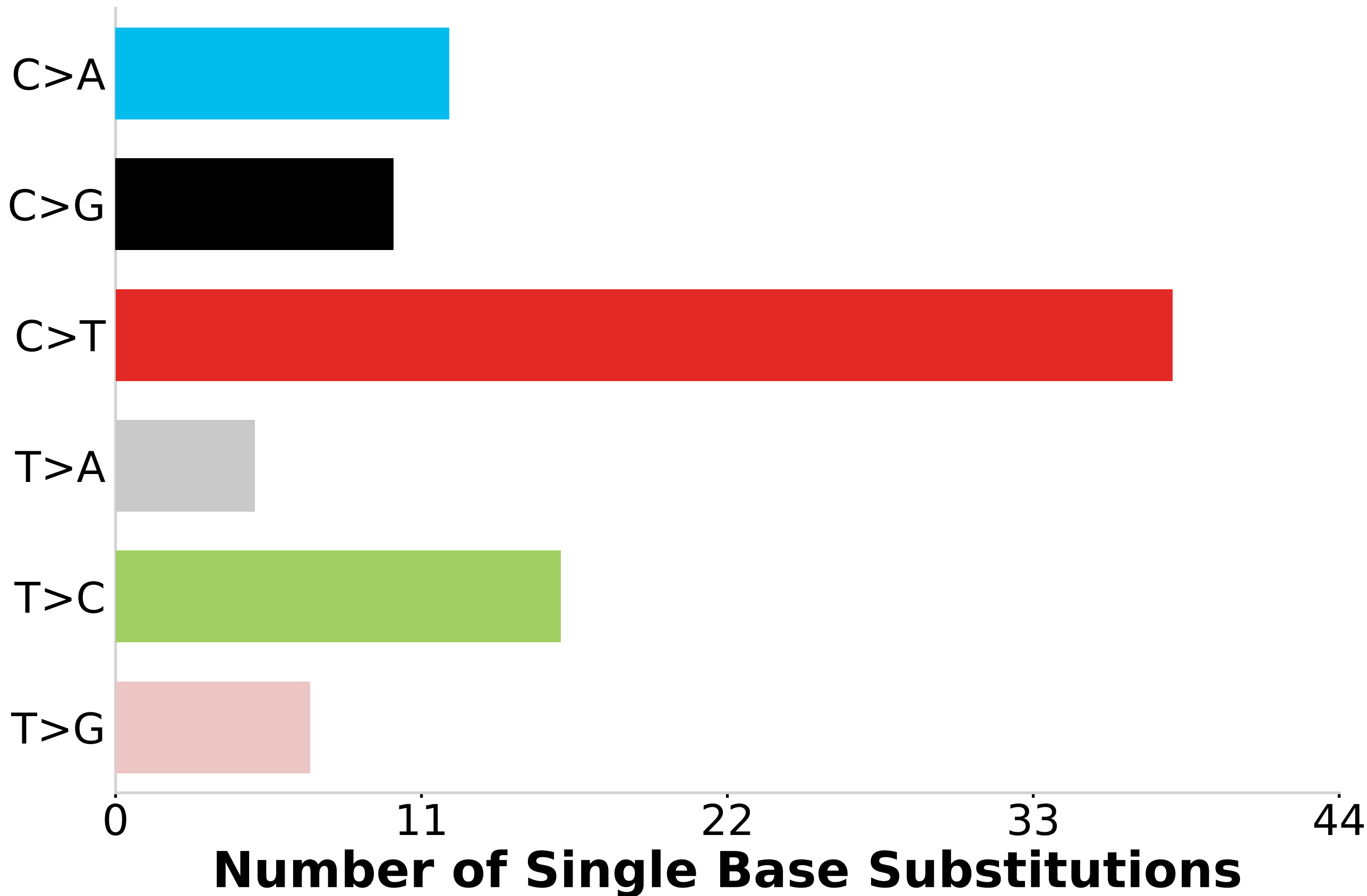
3

4

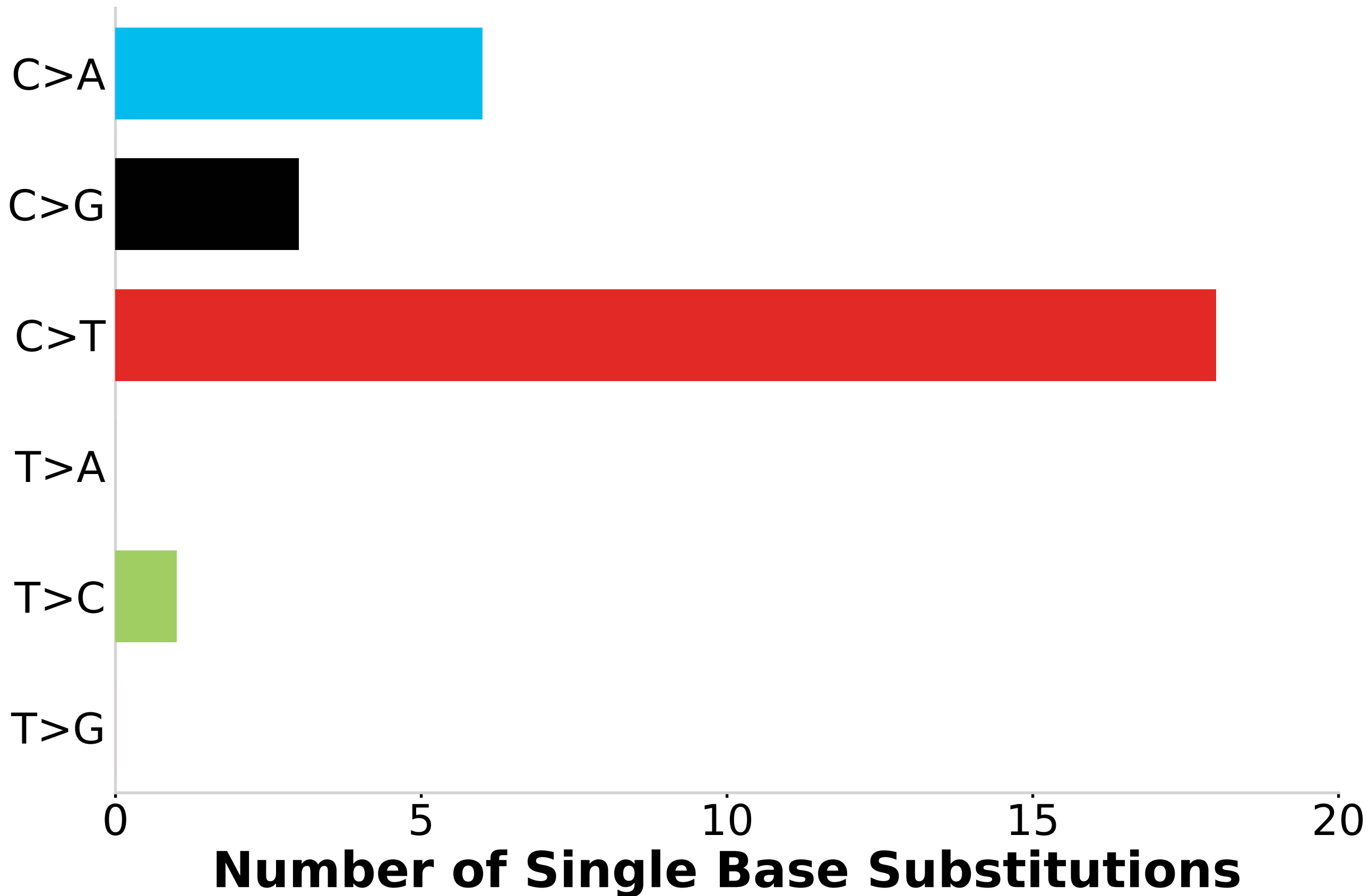
Number of Single Base Substitutions



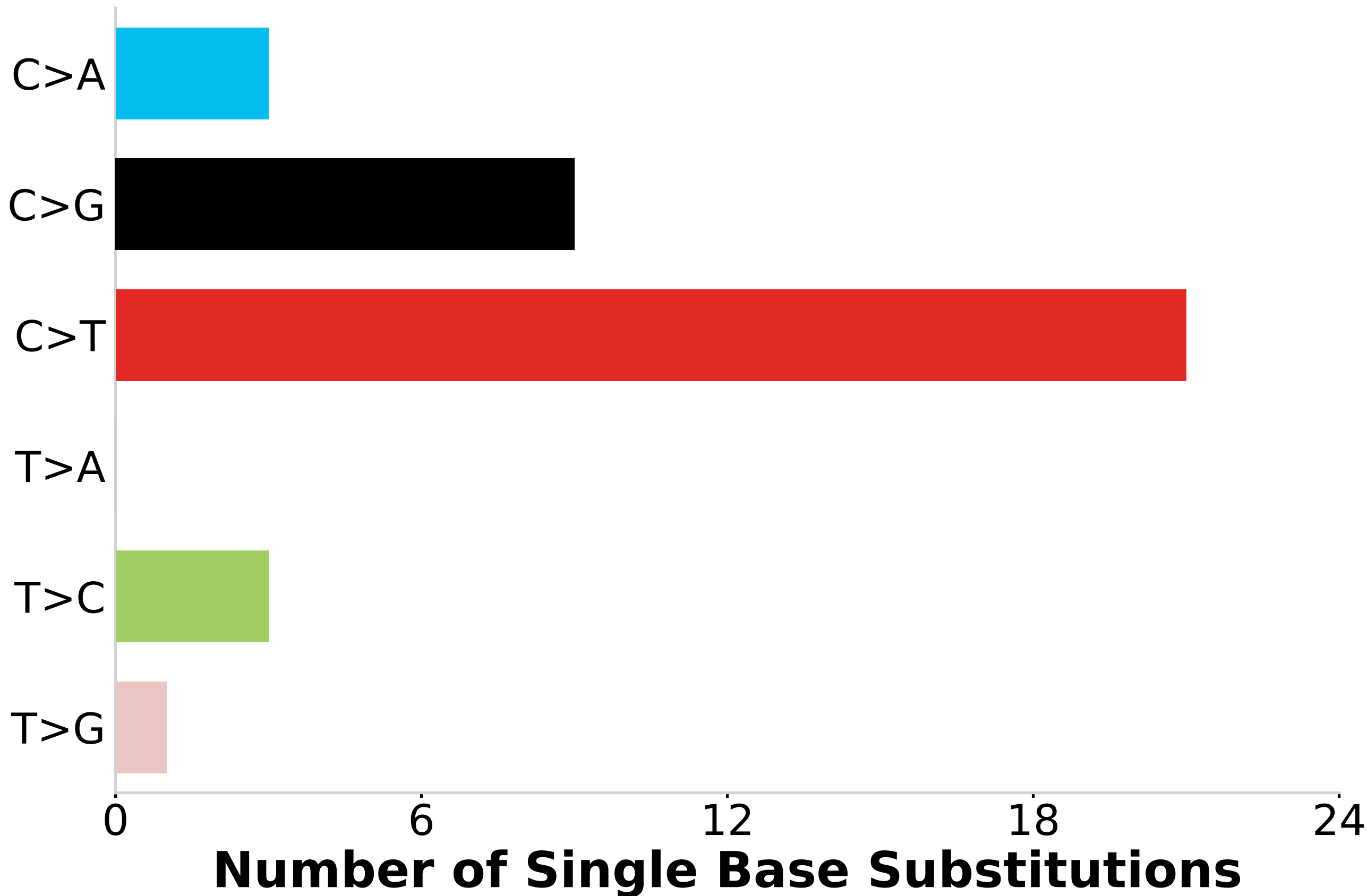
TCGA-FD-A3N5-01A-11D-A21A-08: 88 subs



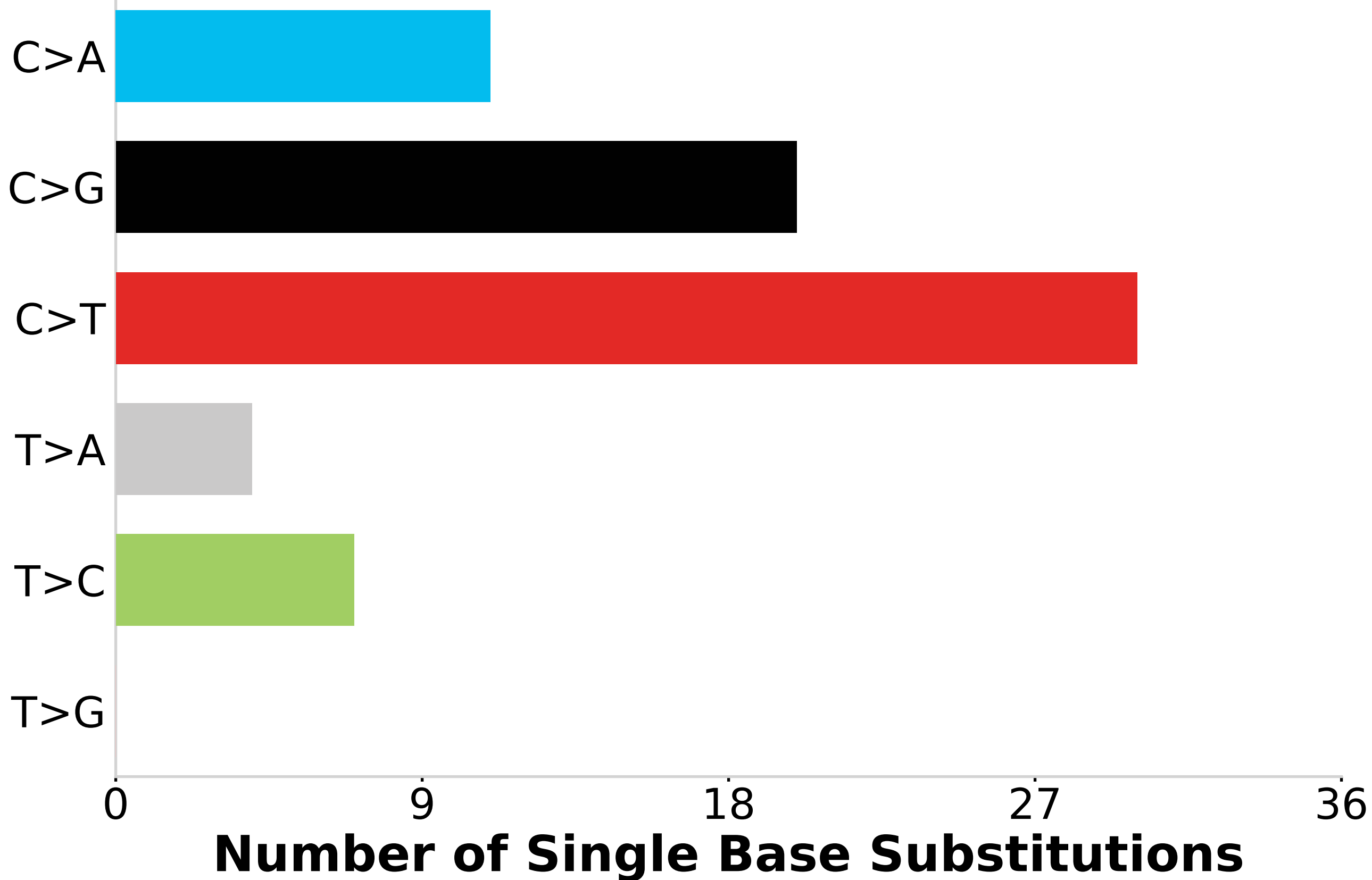
TCGA-FD-A3N6-01A-11D-A21A-08: 28 subs



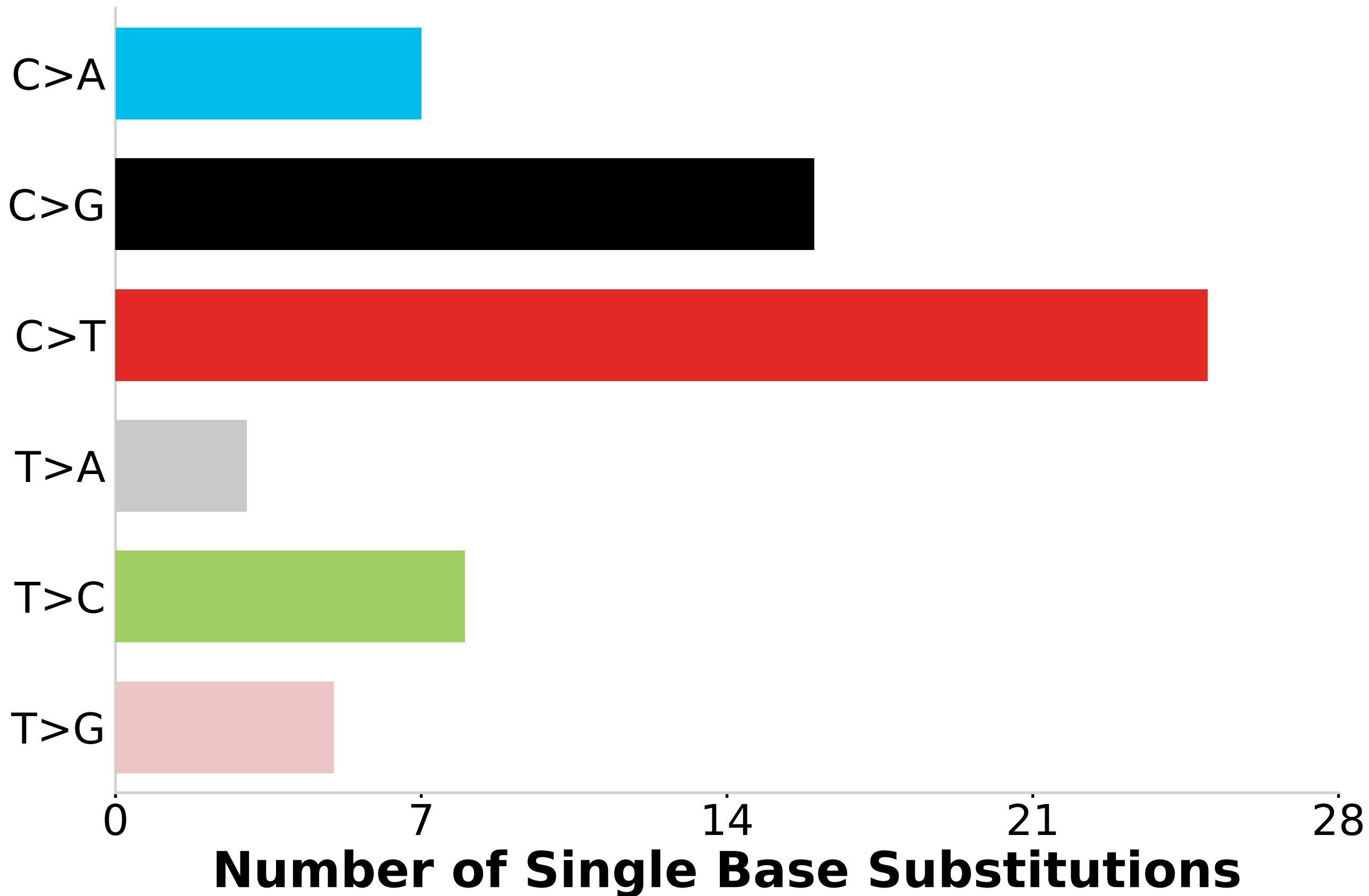
TCGA-FD-A3NA-01A-11D-A21A-08: 37 subs



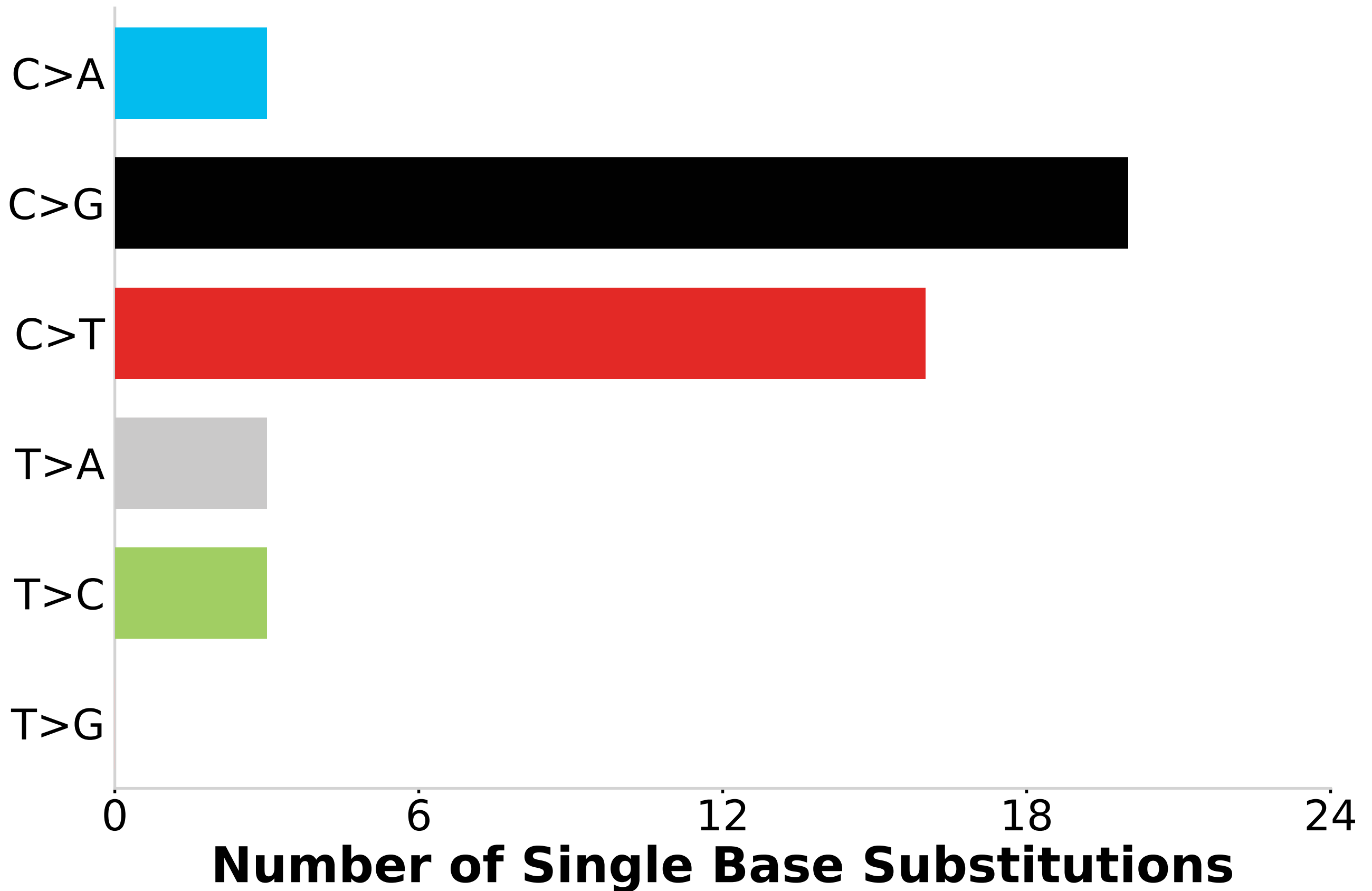
TCGA-FD-A3SJ-01A-12D-A22Z-08: 72 subs



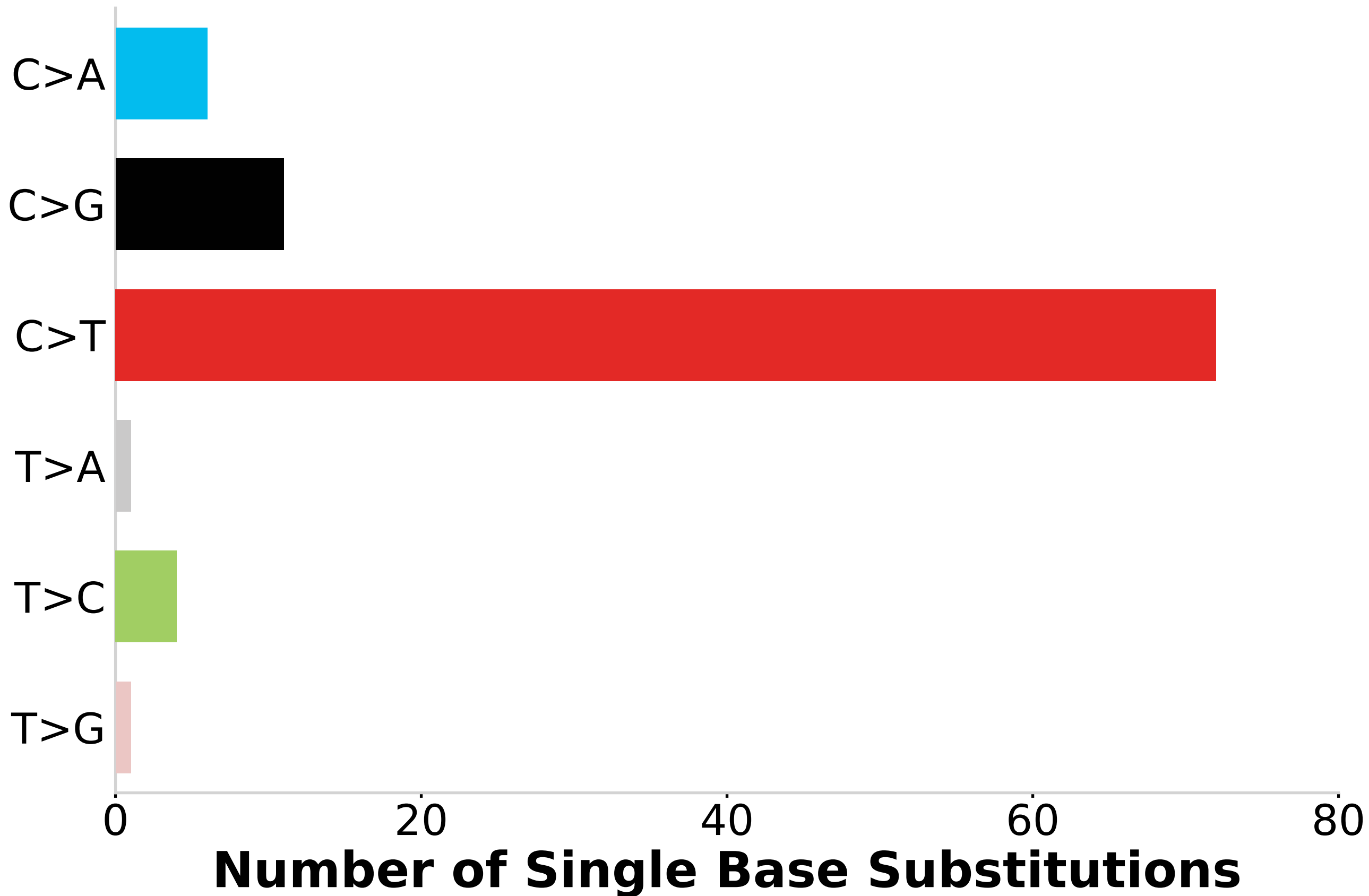
TCGA-FD-A3SL-01A-21D-A22Z-08: 64 subs



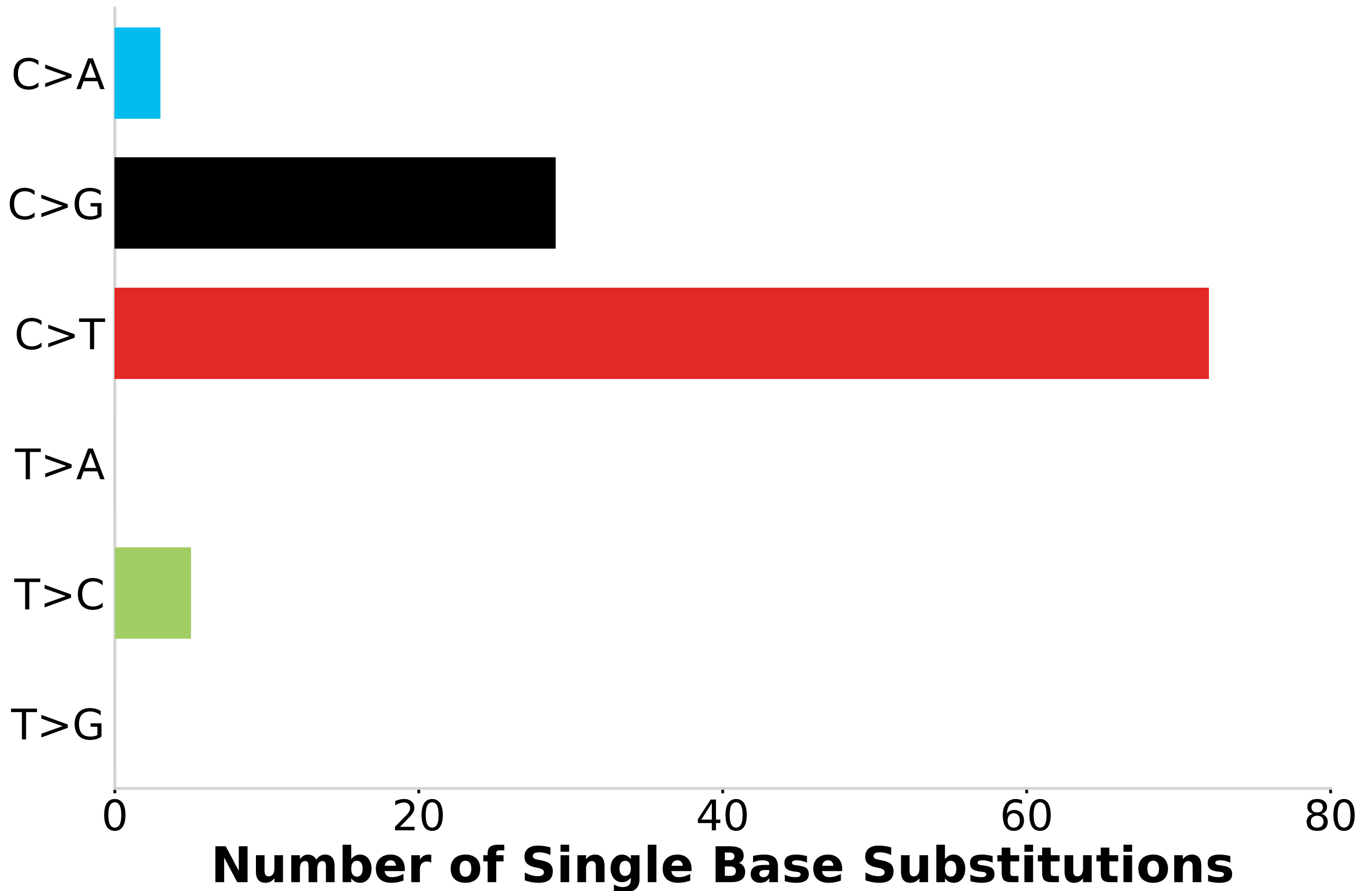
TCGA-FD-A3SM-01A-11D-A22Z-08: 45 subs



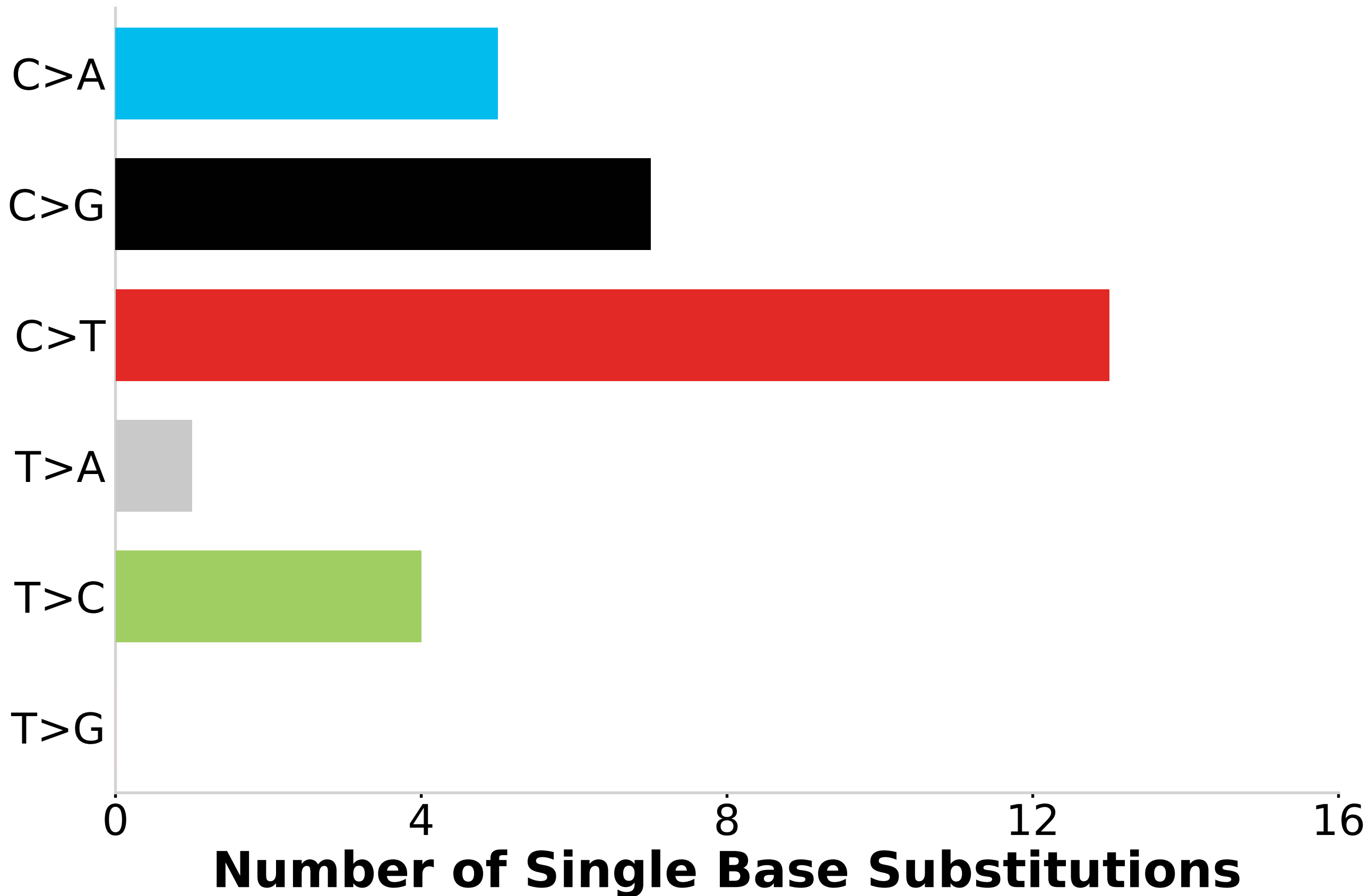
TCGA-FD-A3SN-01A-12D-A22Z-08: 95 subs



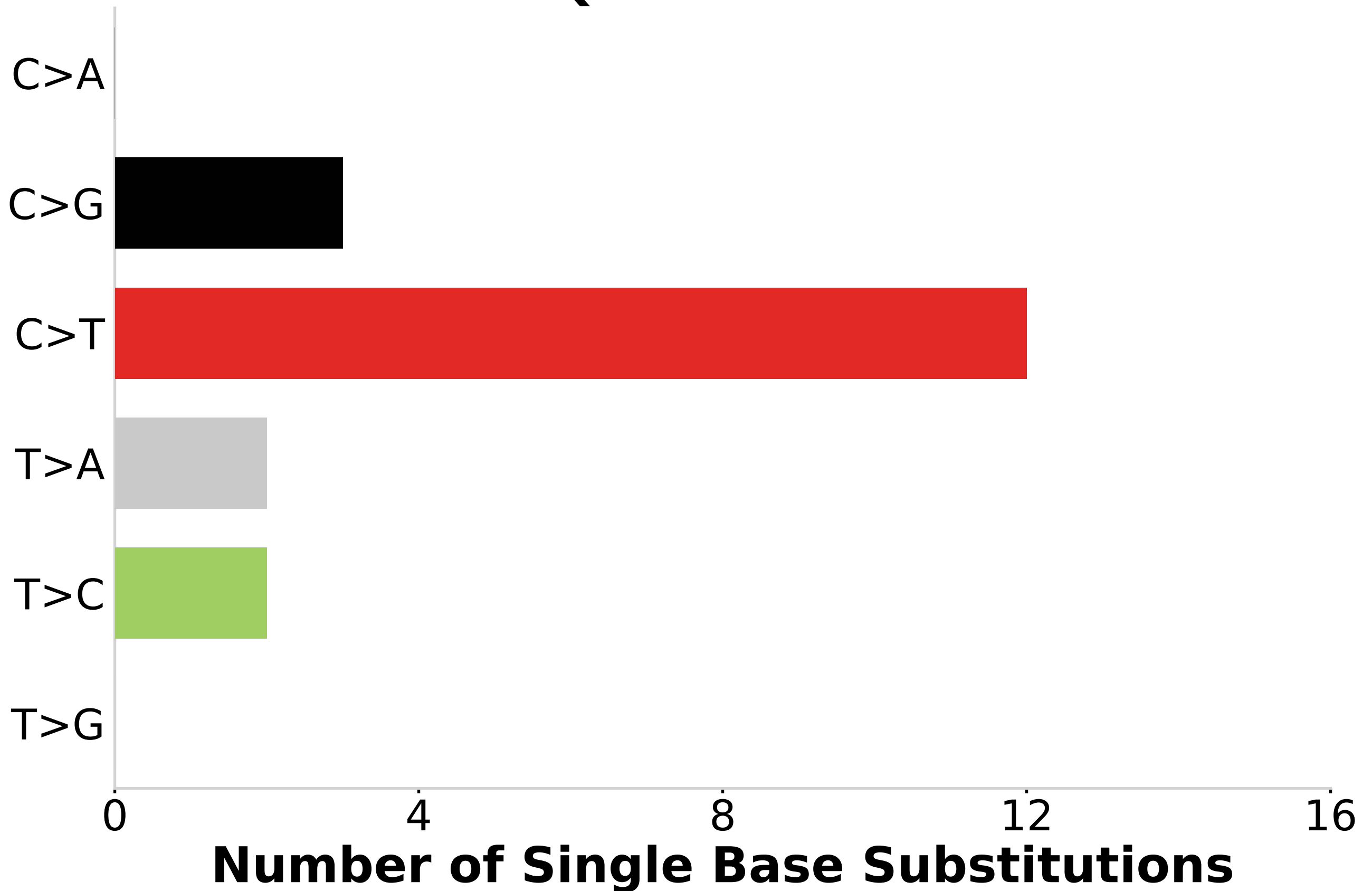
TCGA-FD-A3SO-01A-11D-A22Z-08: 109 sub



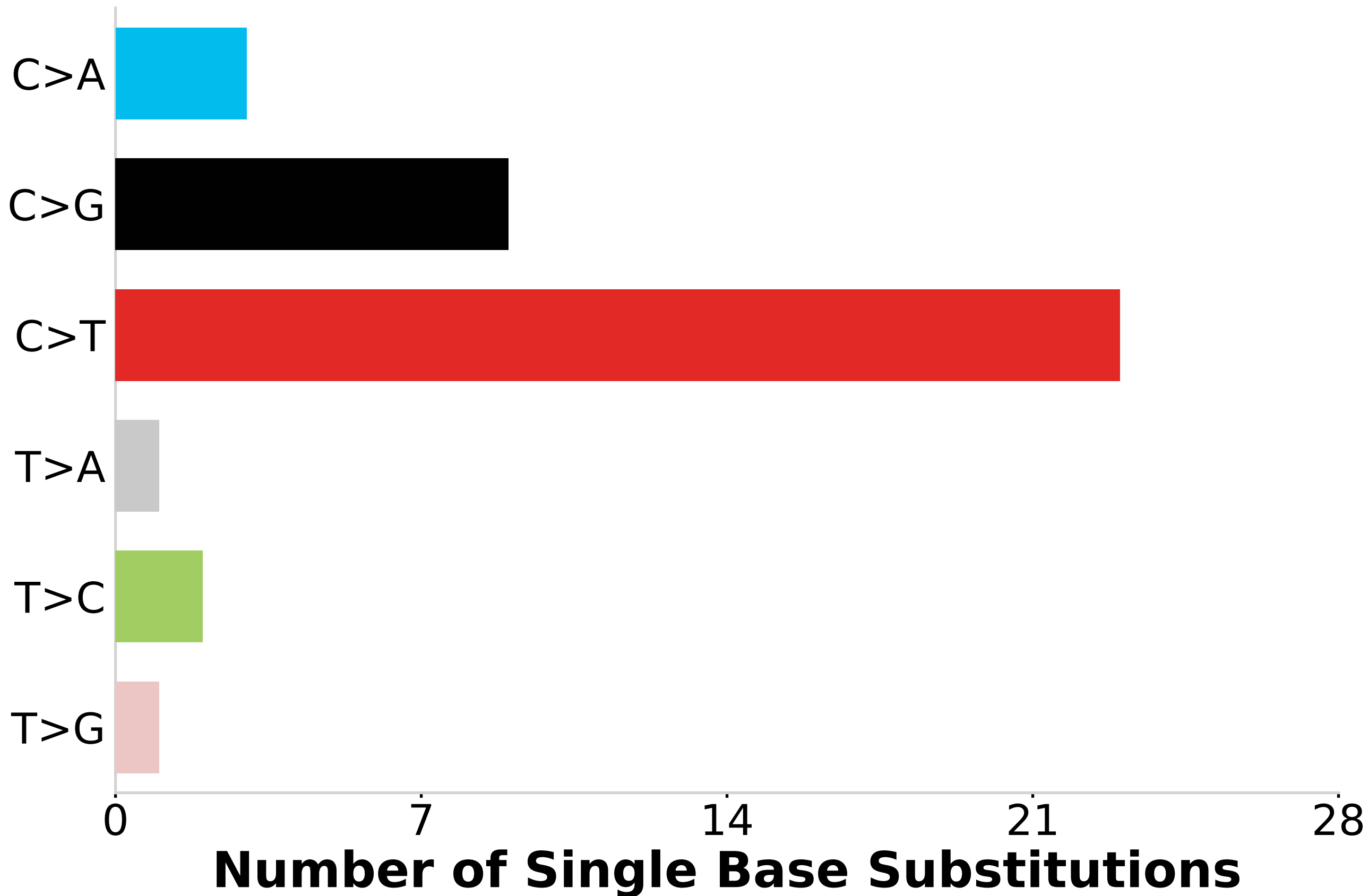
TCGA-FD-A3SP-01A-31D-A22Z-08: 30 subs



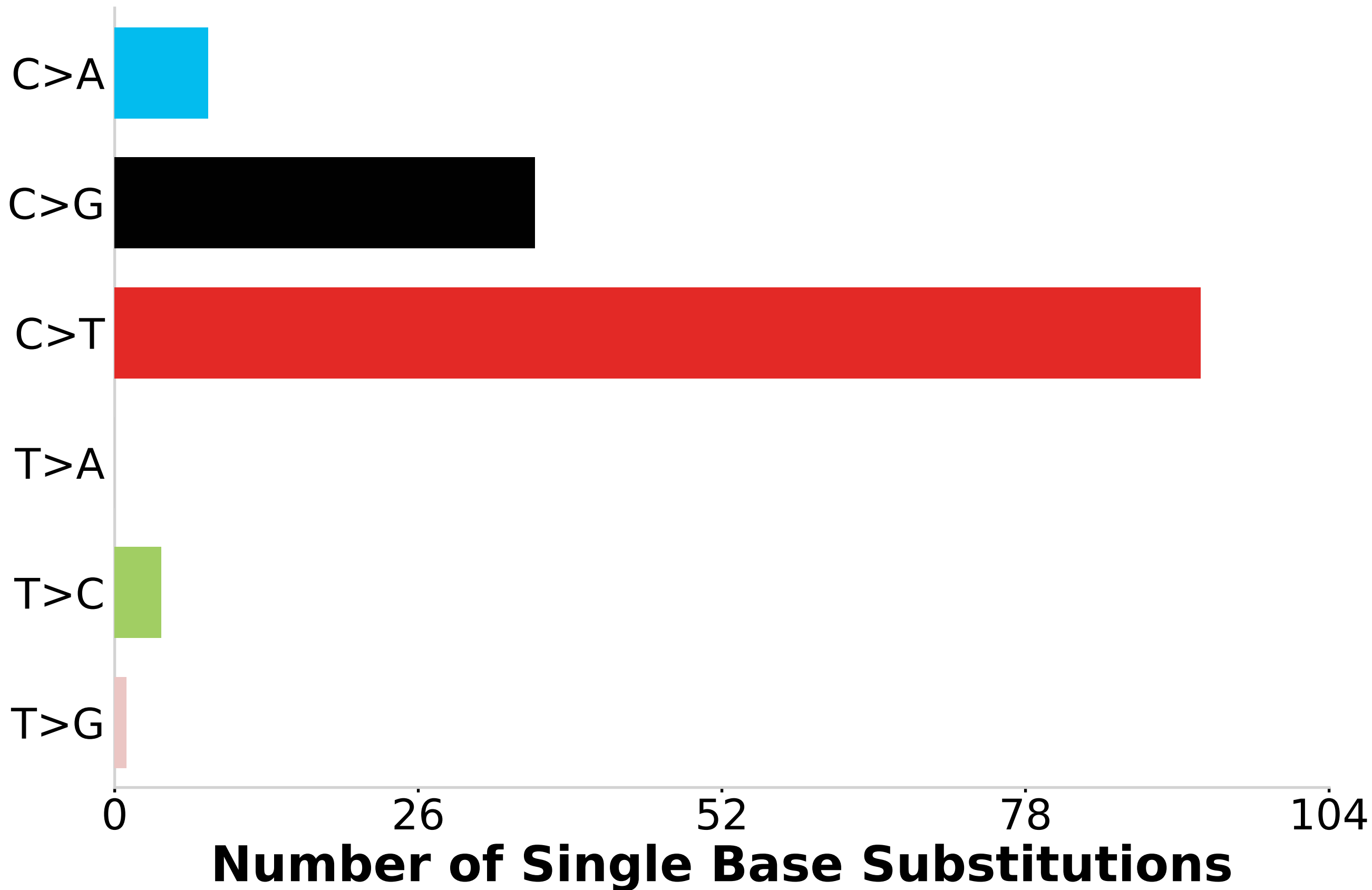
TCGA-FD-A3SQ-01A-21D-A22Z-08: 19 subs



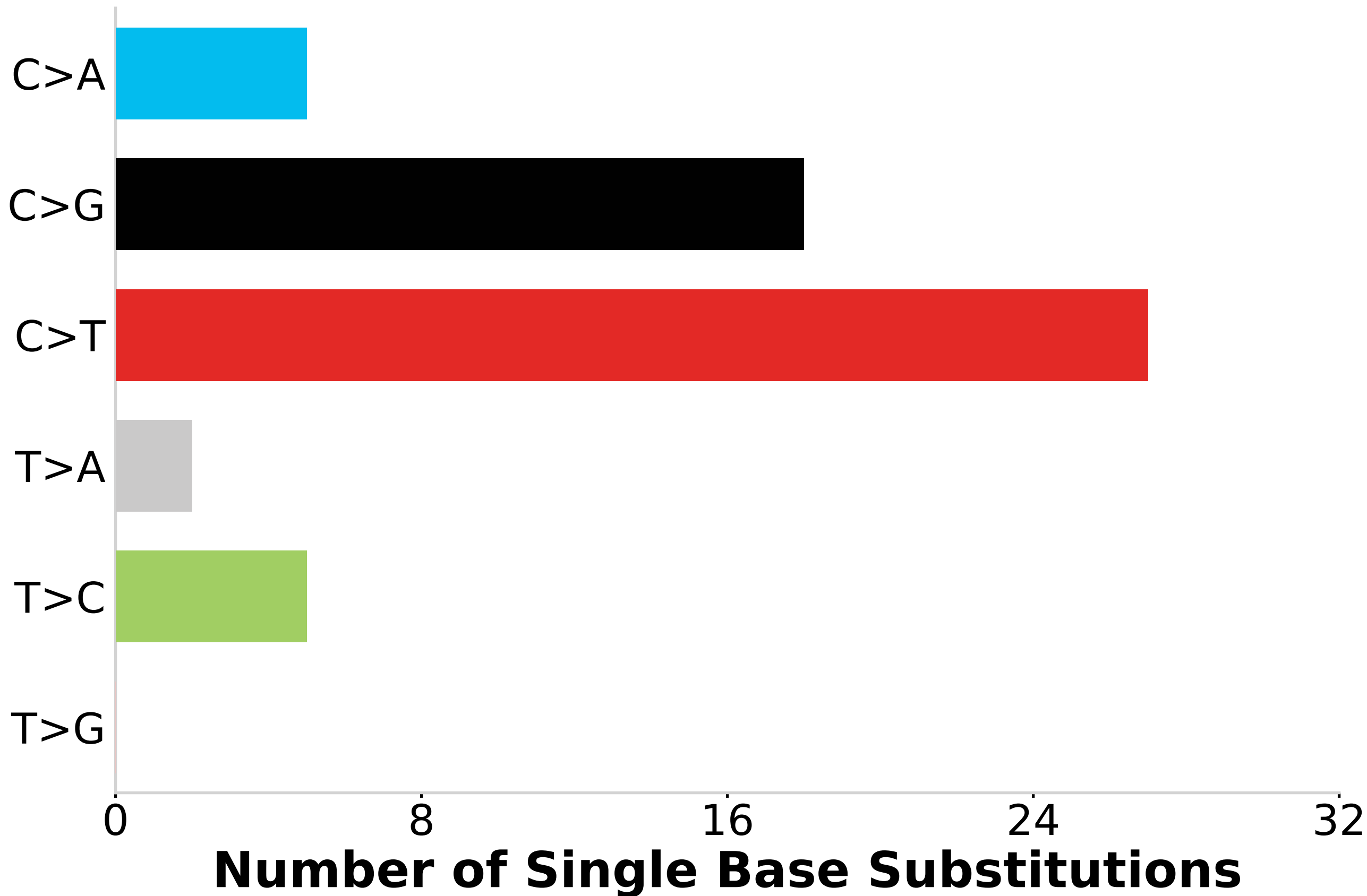
TCGA-FD-A3SR-01A-11D-A22Z-08: 39 subs



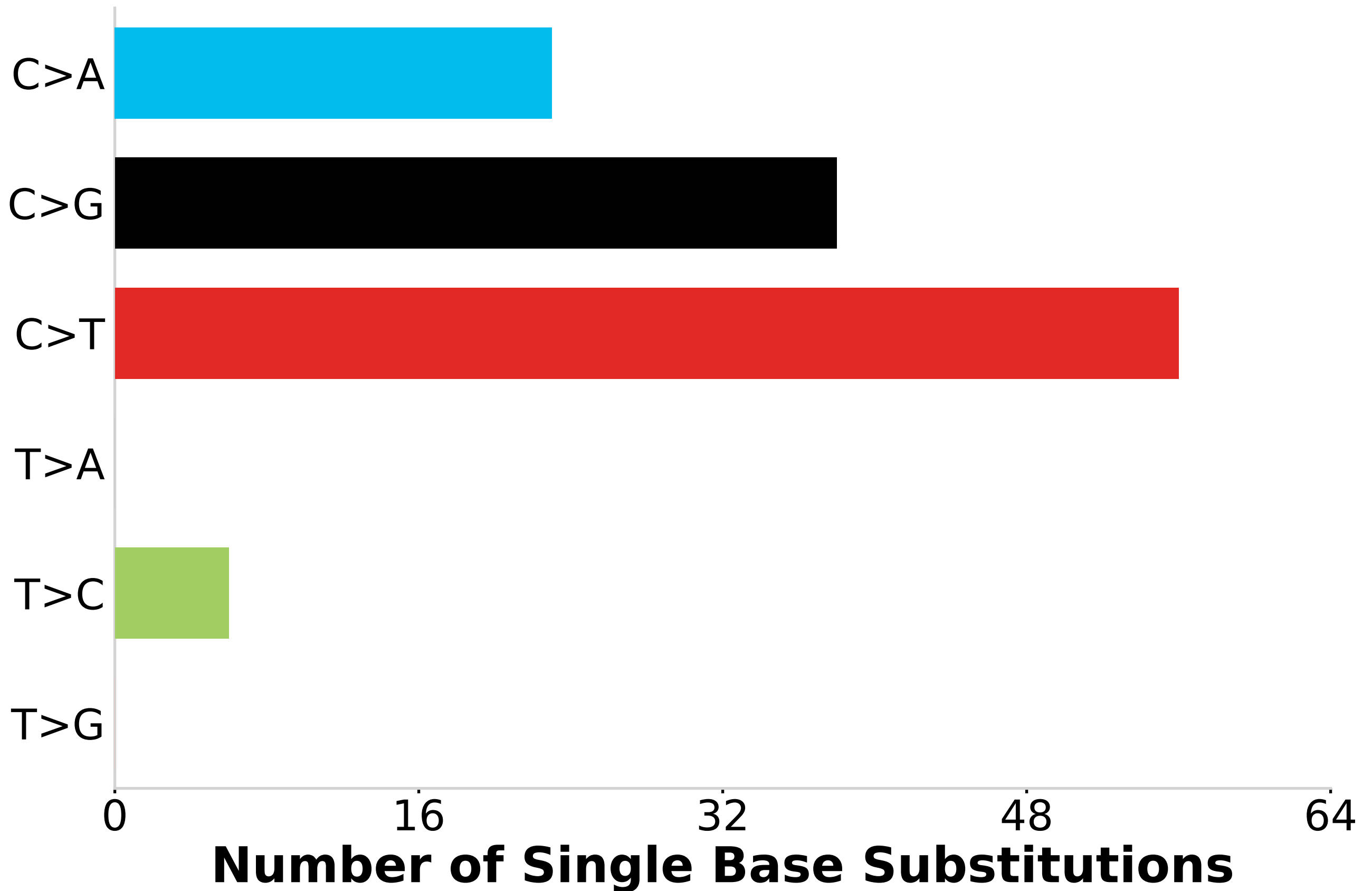
TCGA-FD-A3SS-01A-12D-A22Z-08: 142 sub



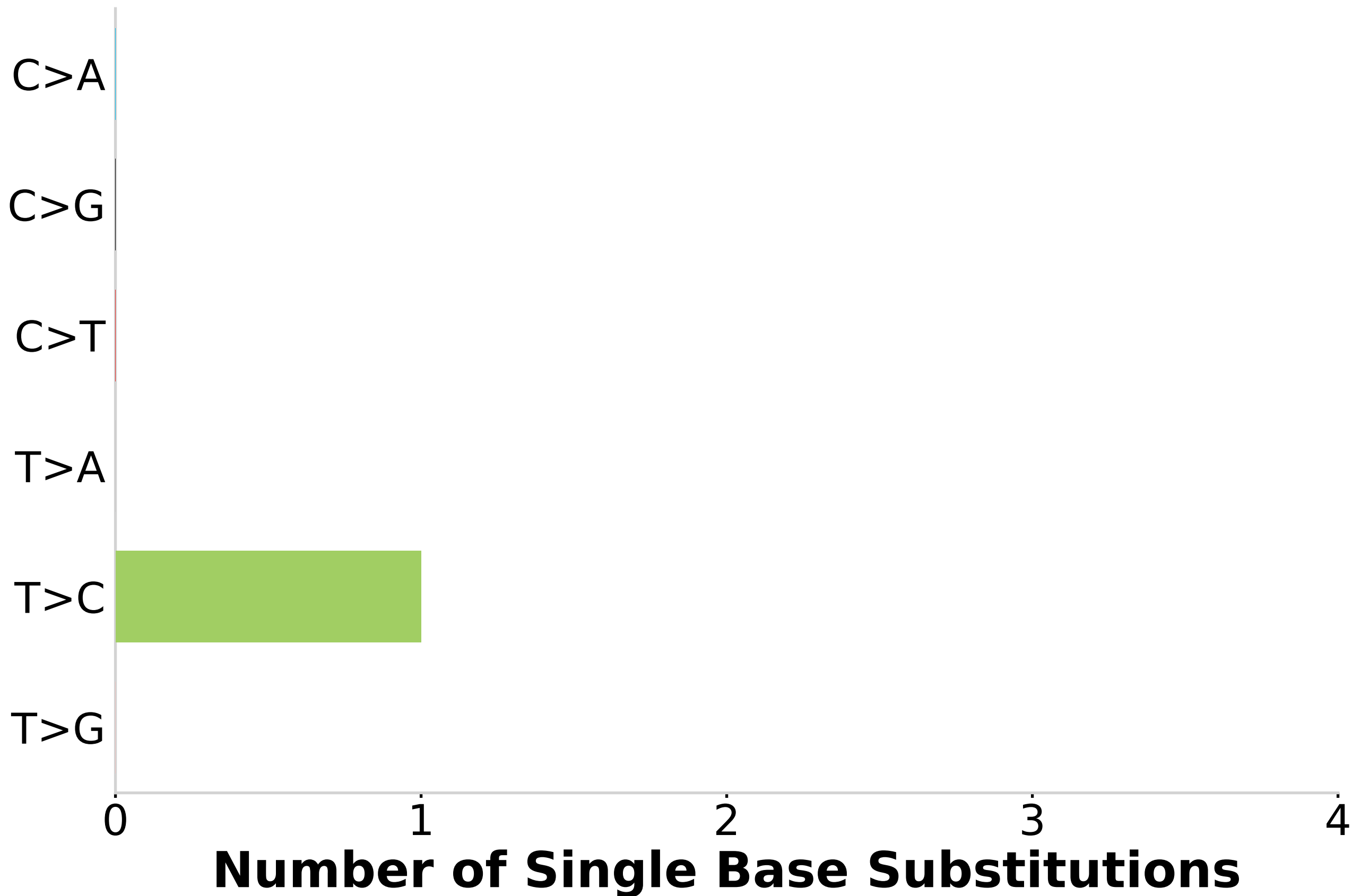
TCGA-FD-A43N-01A-11D-A23U-08: 57 subs



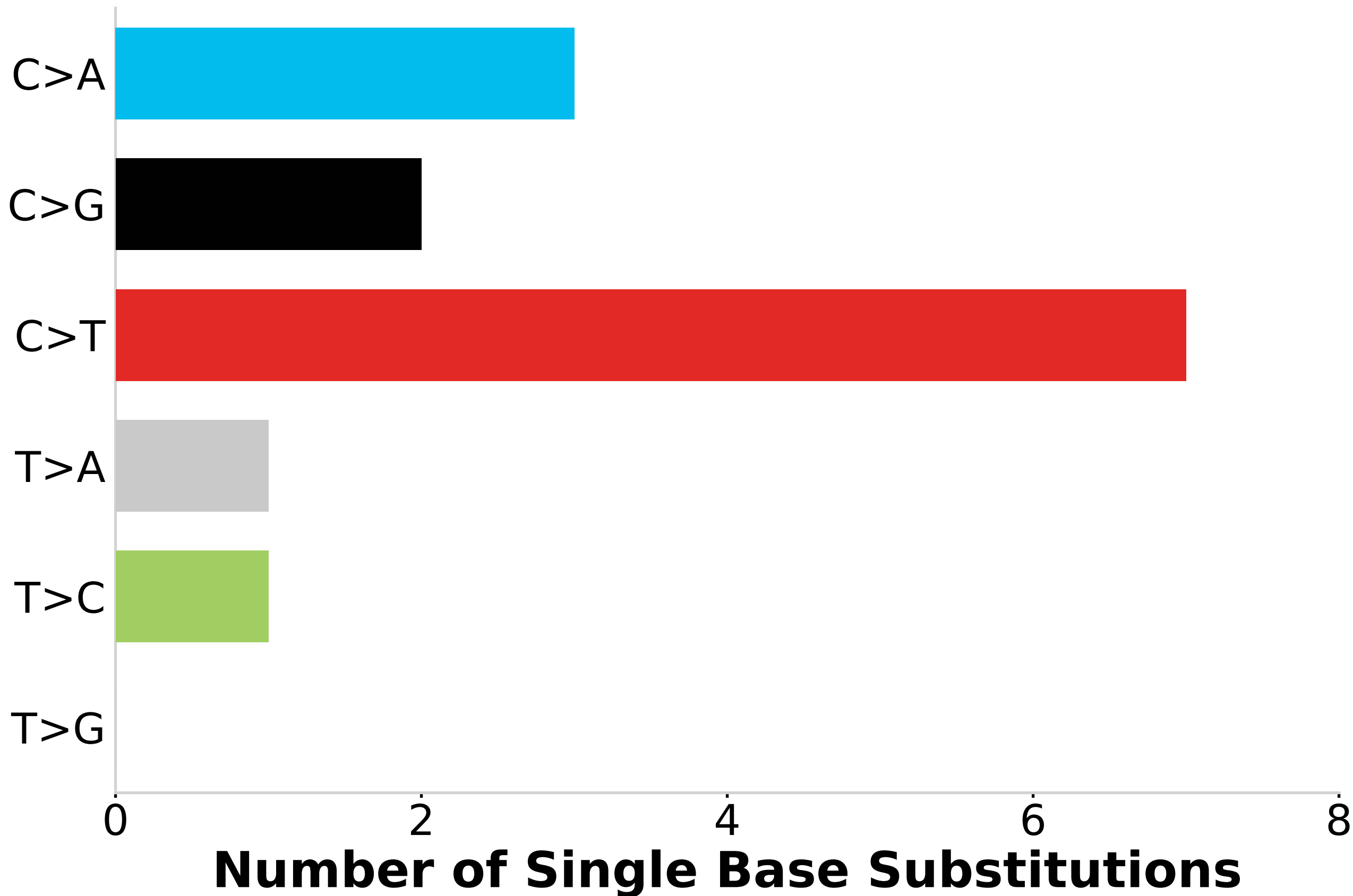
TCGA-FD-A43P-01A-31D-A23U-08: 123 sub



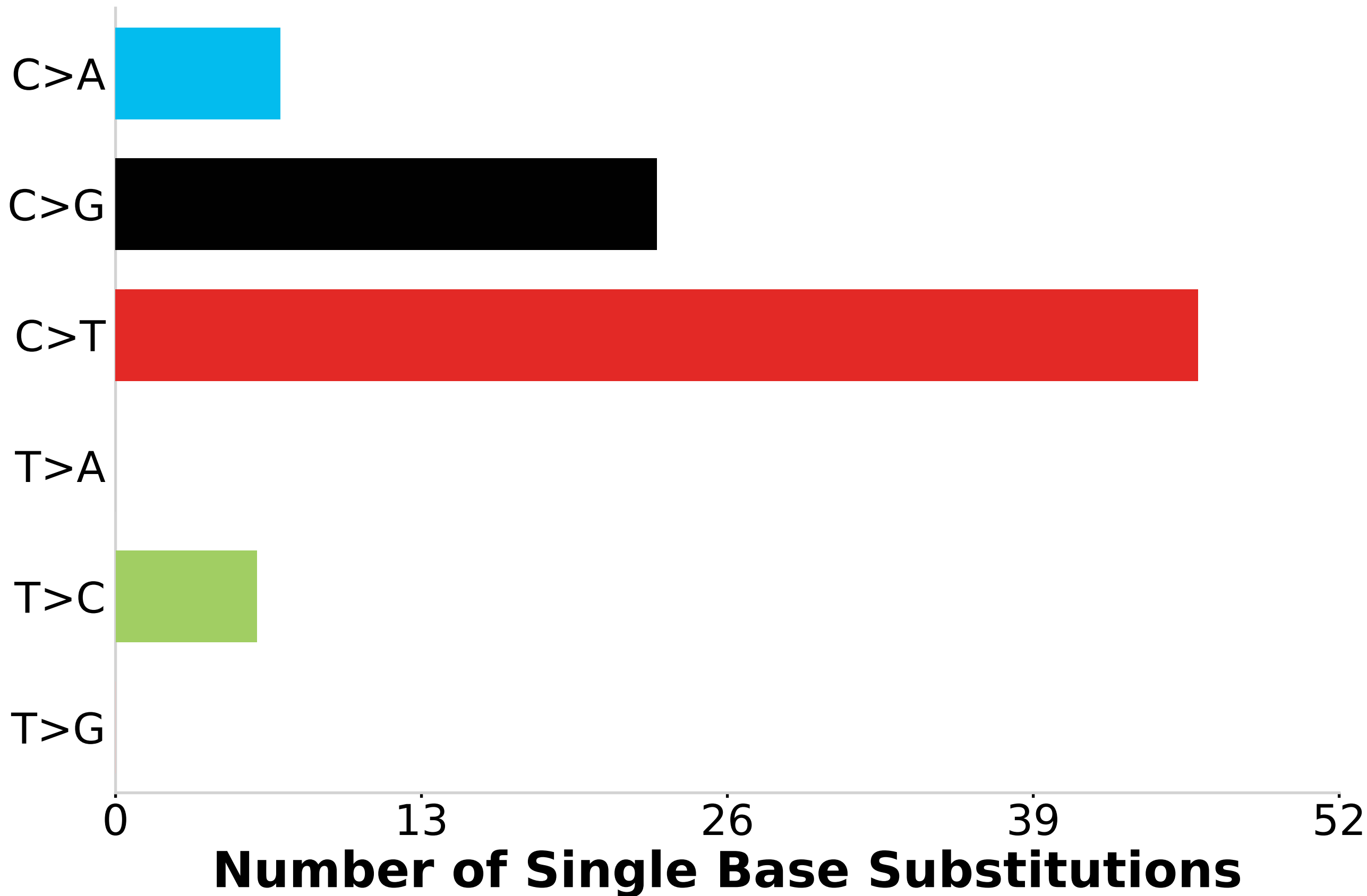
TCGA-FD-A43S-01A-21D-A23U-08: 1 subs



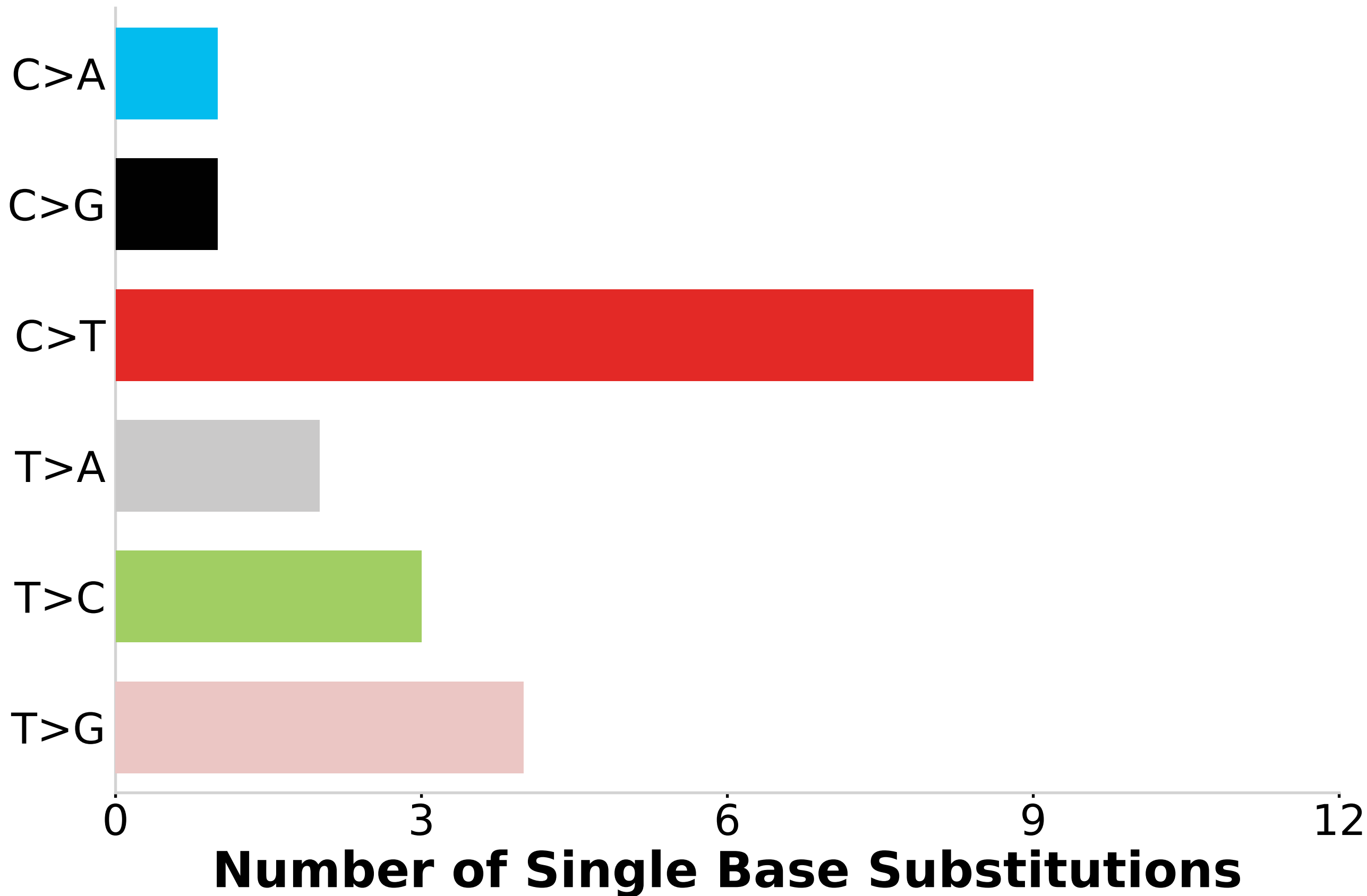
TCGA-FD-A43U-01A-11D-A23U-08: 14 subs



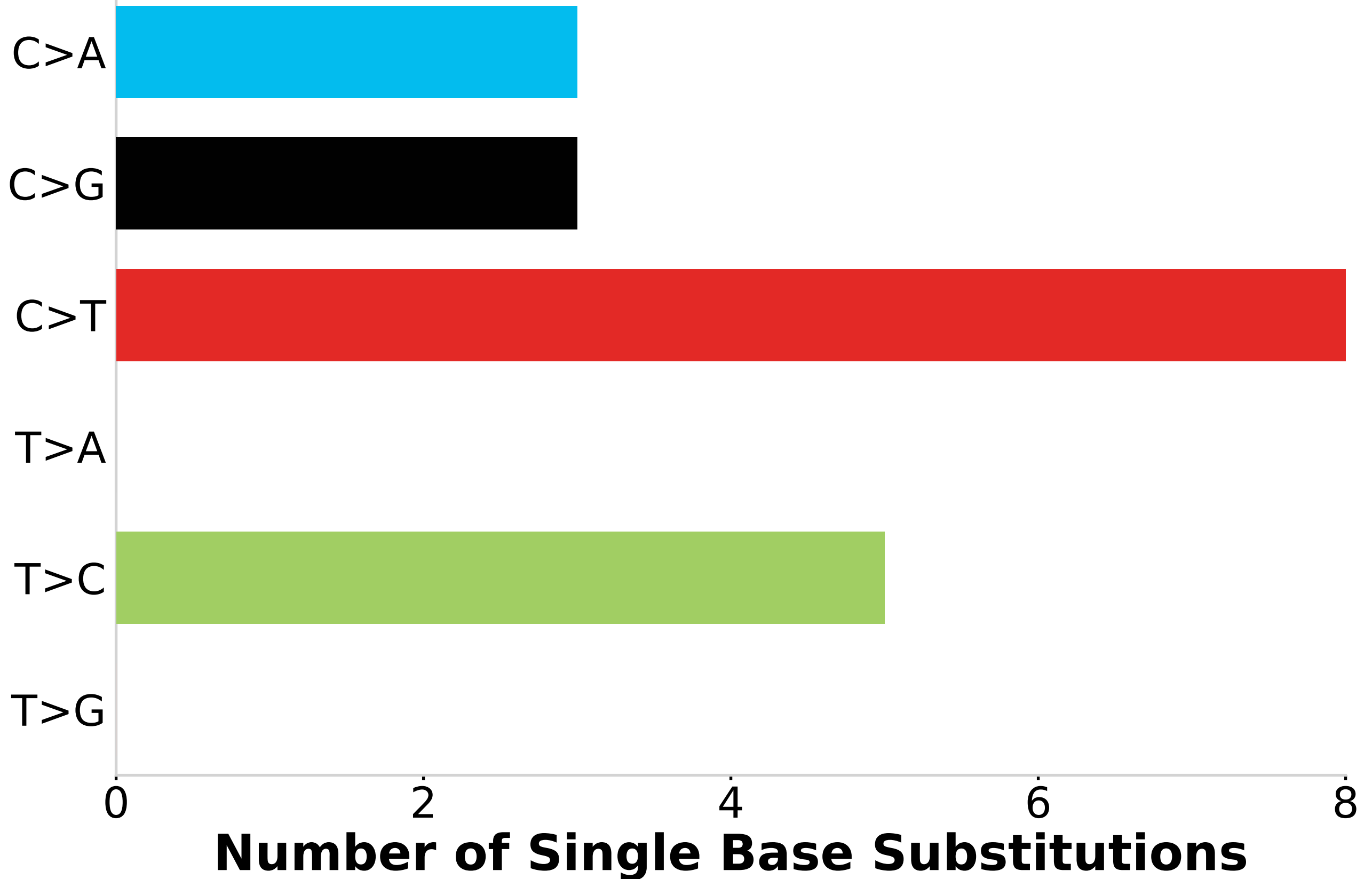
TCGA-FD-A43X-01A-11D-A23U-08: 82 subs



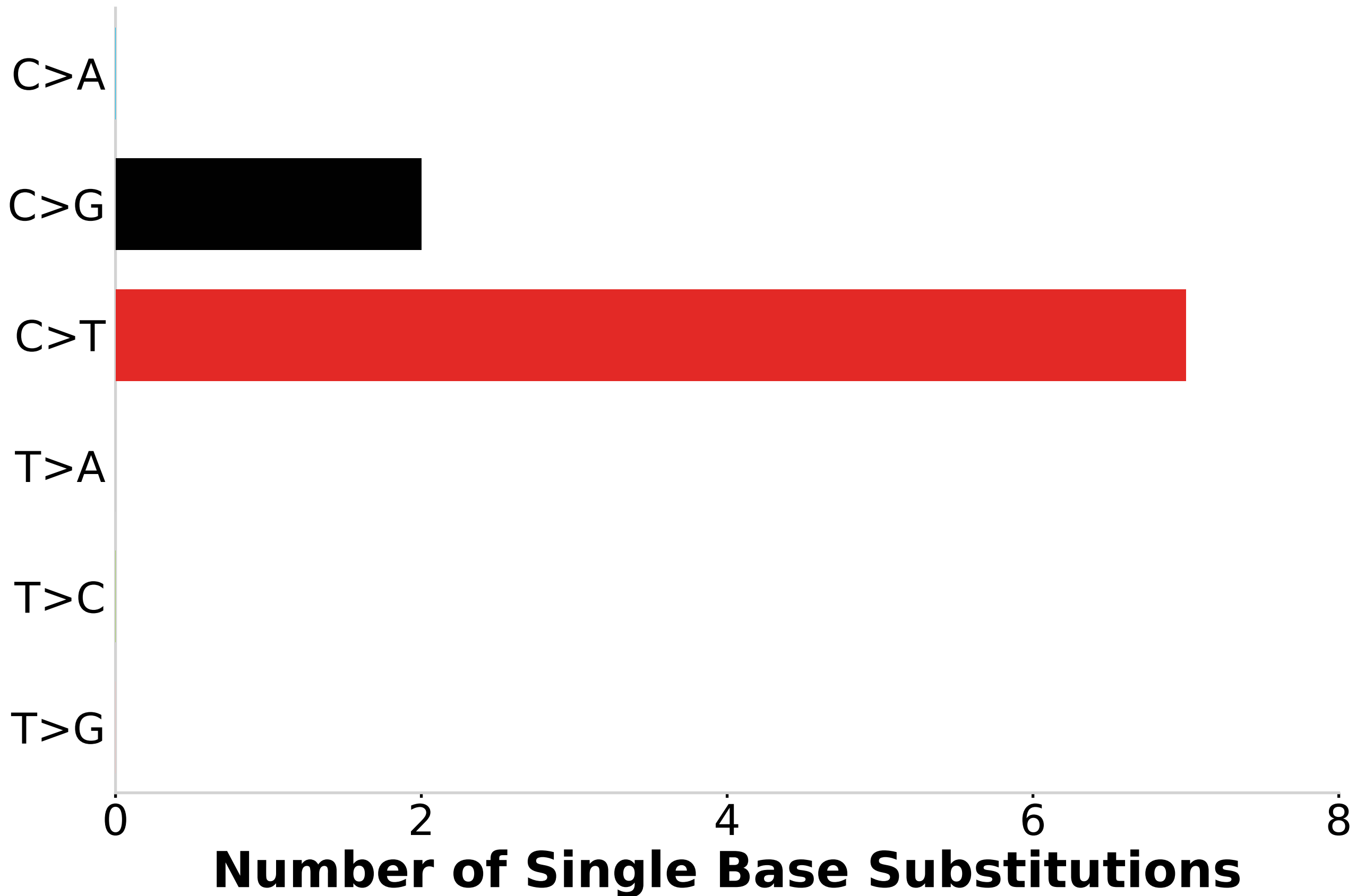
TCGA-FD-A43Y-01A-21D-A26M-08: 20 subs



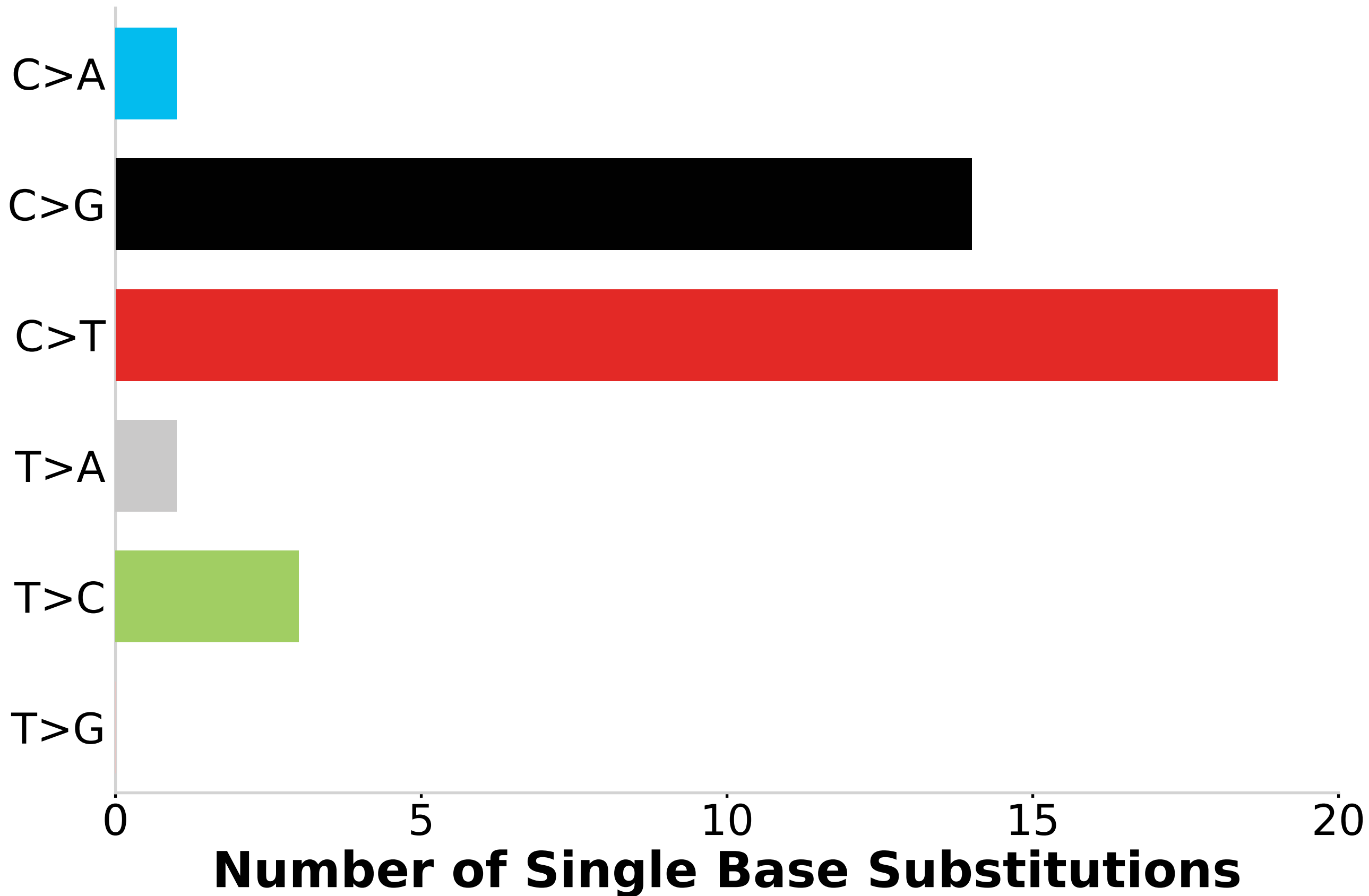
TCGA-FD-A5BR-01A-11D-A26M-08: 19 subs



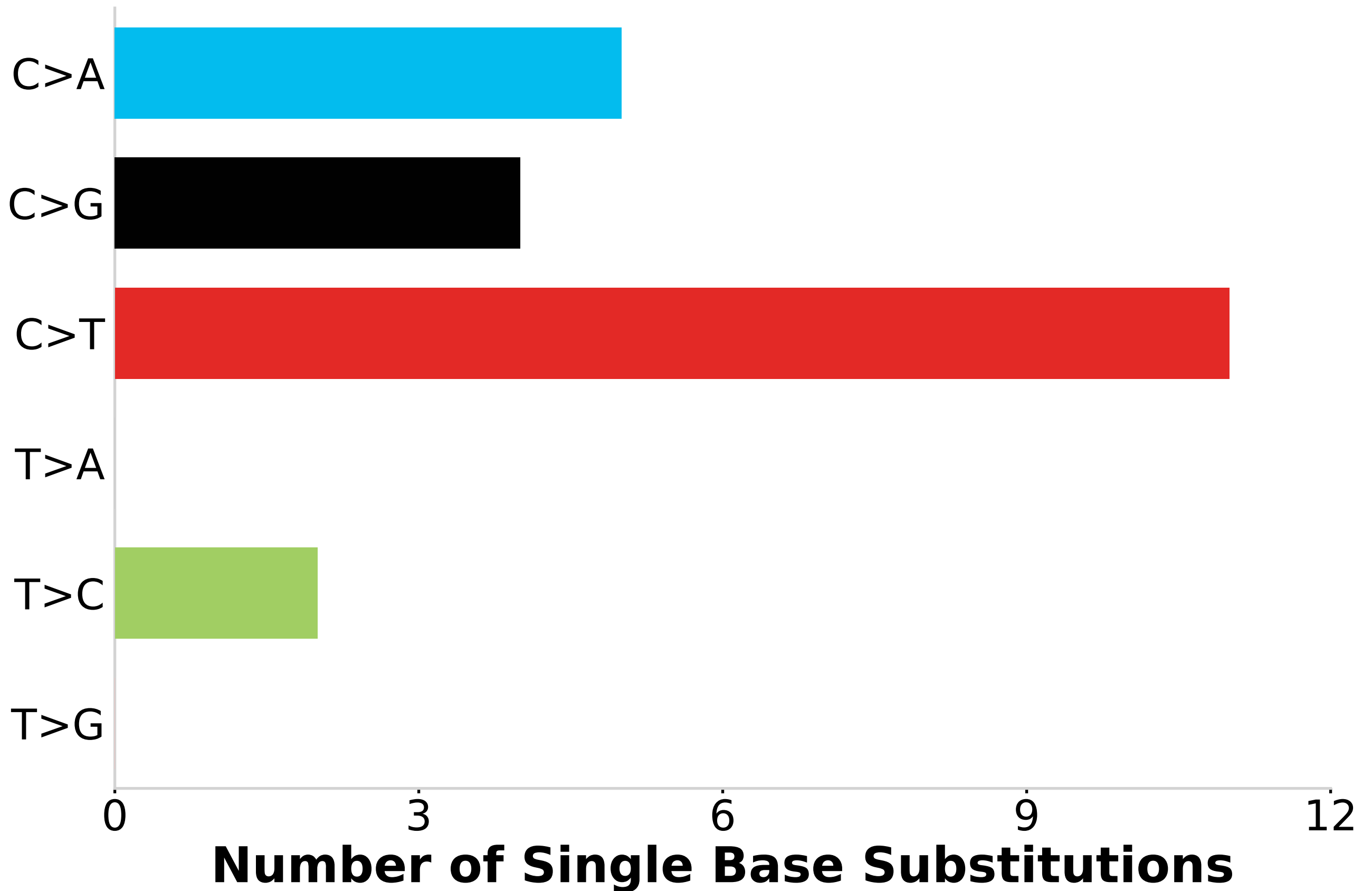
TCGA-FD-A5BS-01A-21D-A26M-08: 9 subs



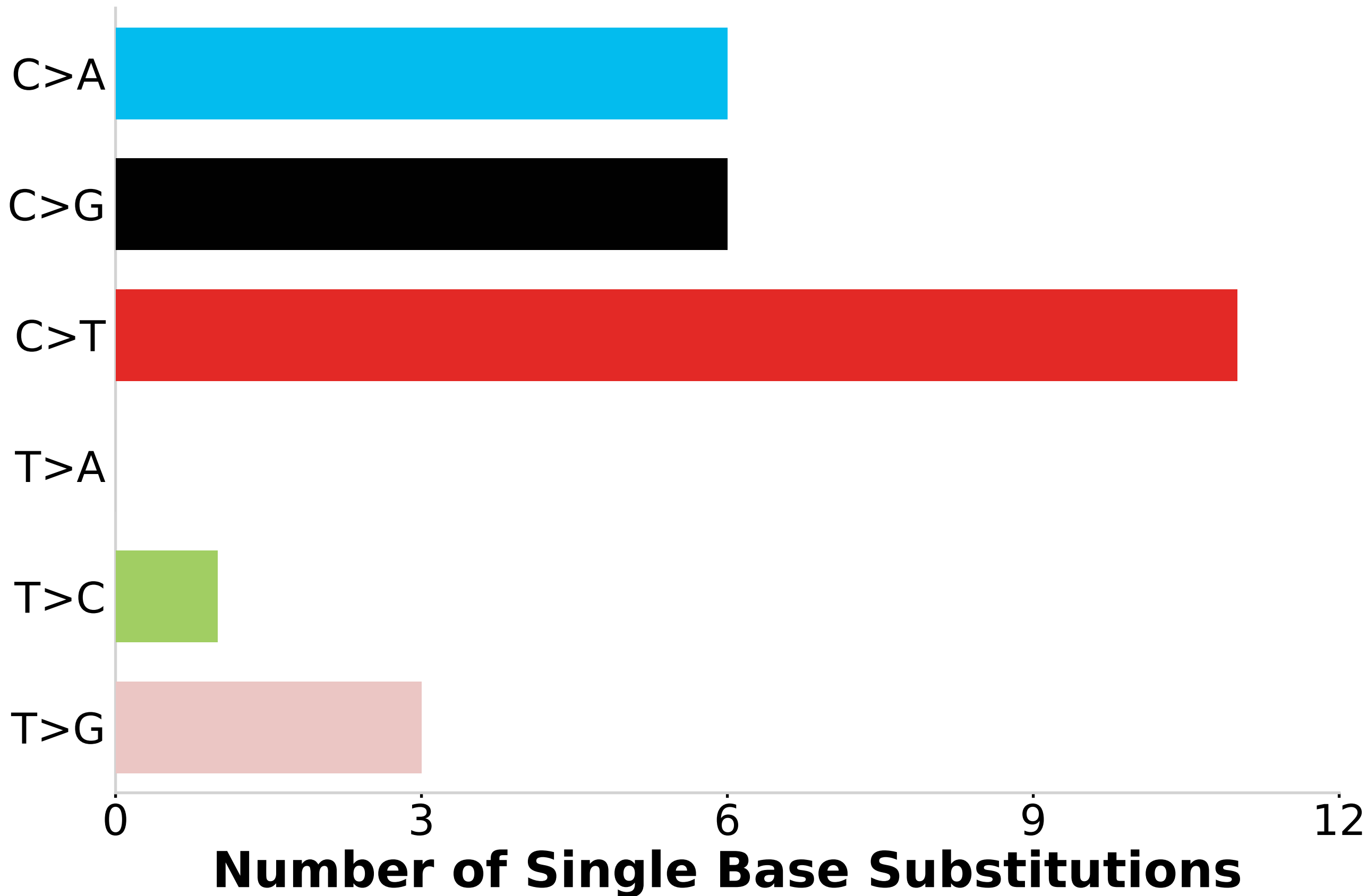
TCGA-FD-A5BT-01A-11D-A26M-08: 38 subs



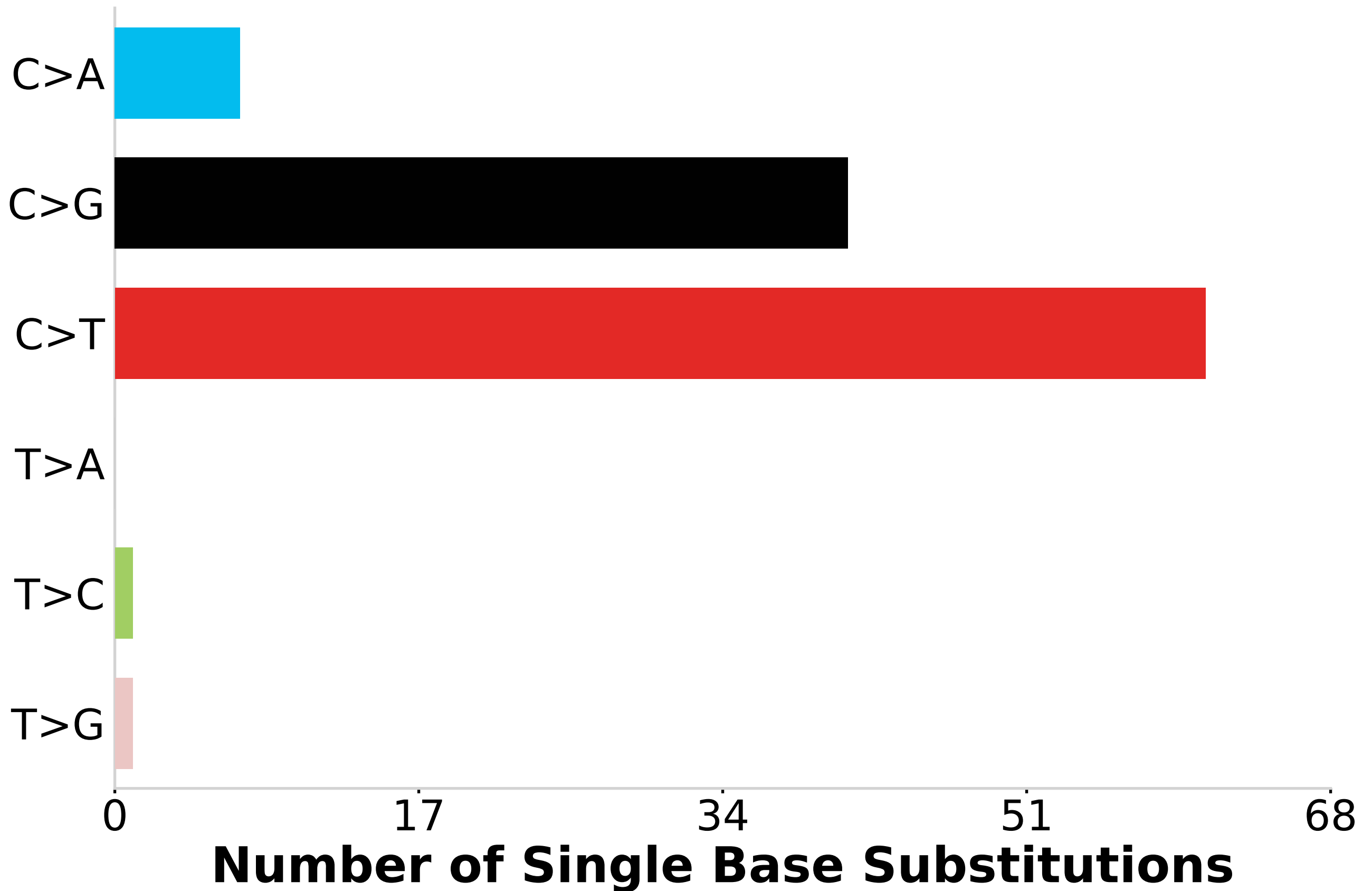
TCGA-FD-A5BU-01A-31D-A26M-08: 22 sub



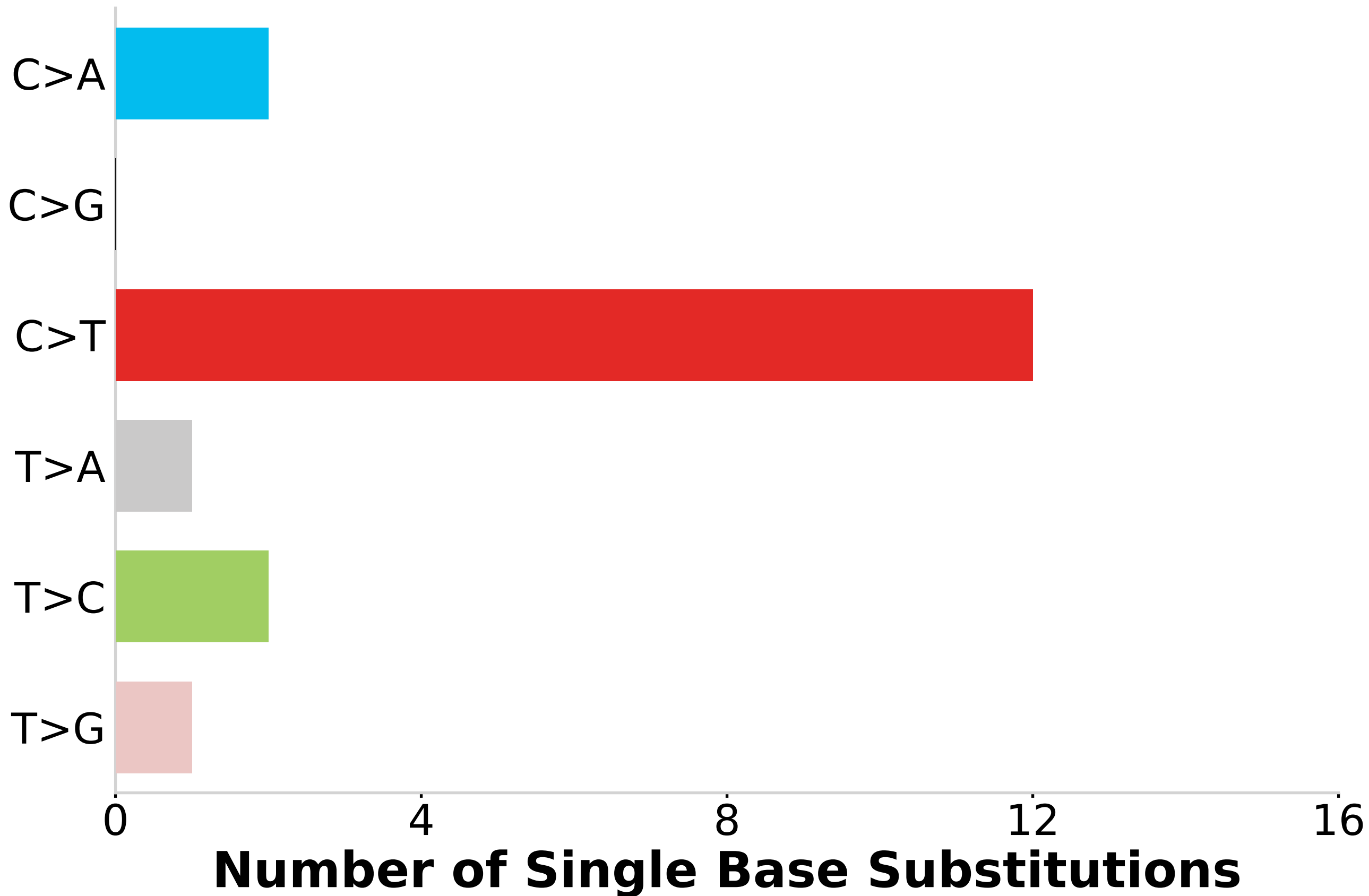
TCGA-FD-A5BV-01A-11D-A26M-08: 27 subs



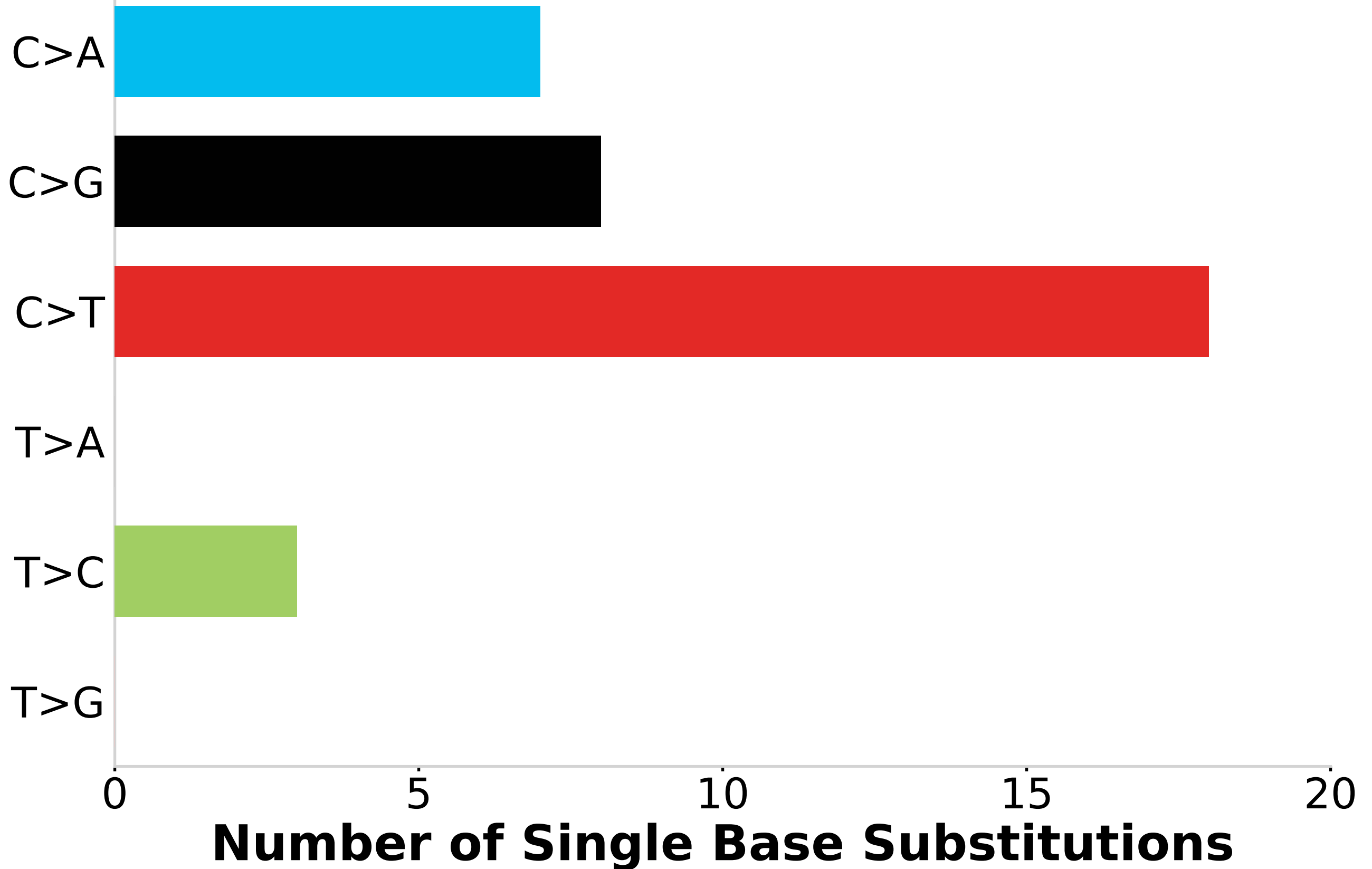
TCGA-FD-A5BX-01A-11D-A26M-08: 111 sub



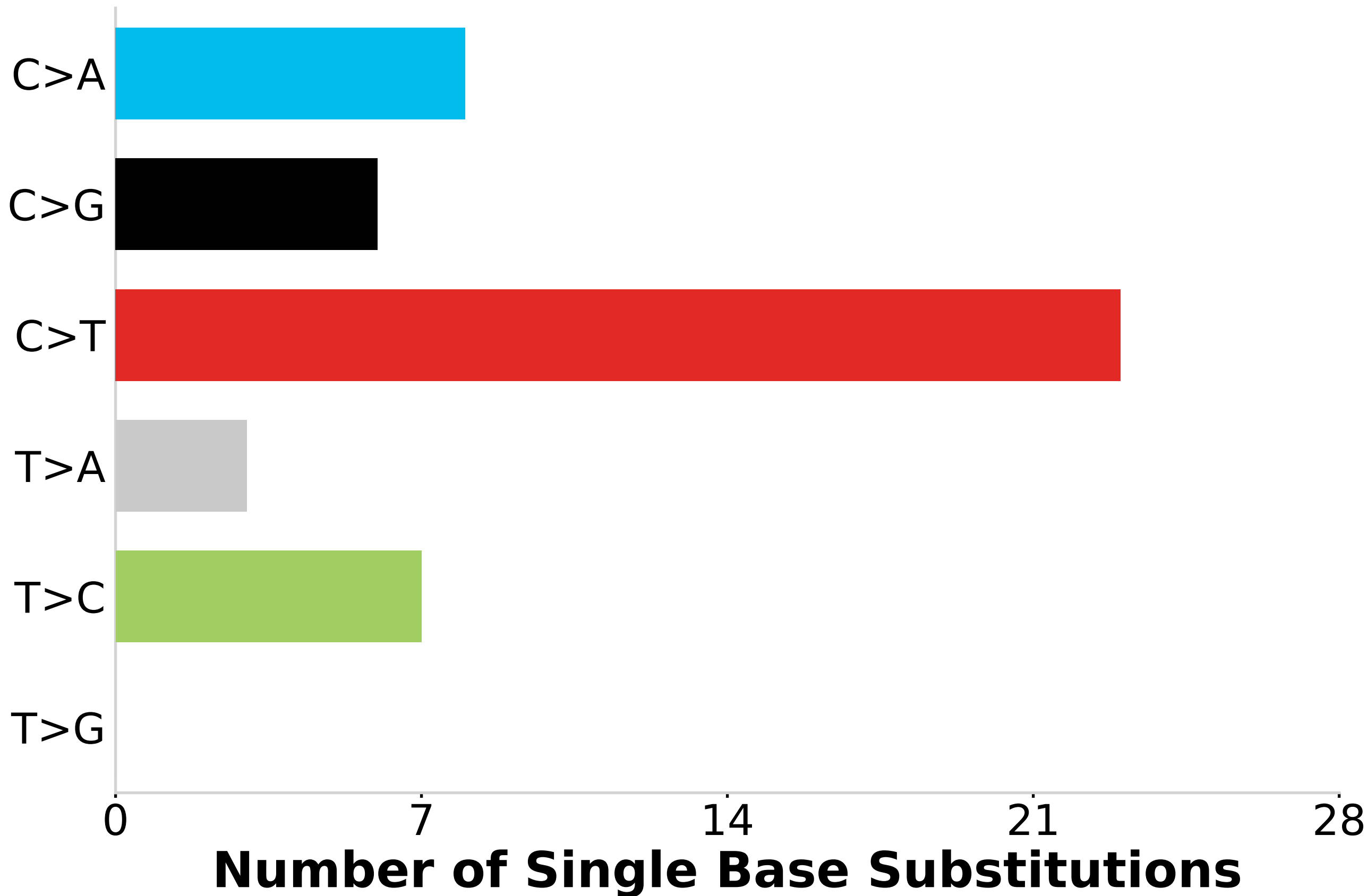
TCGA-FD-A5BY-01A-31D-A289-08: 18 subs



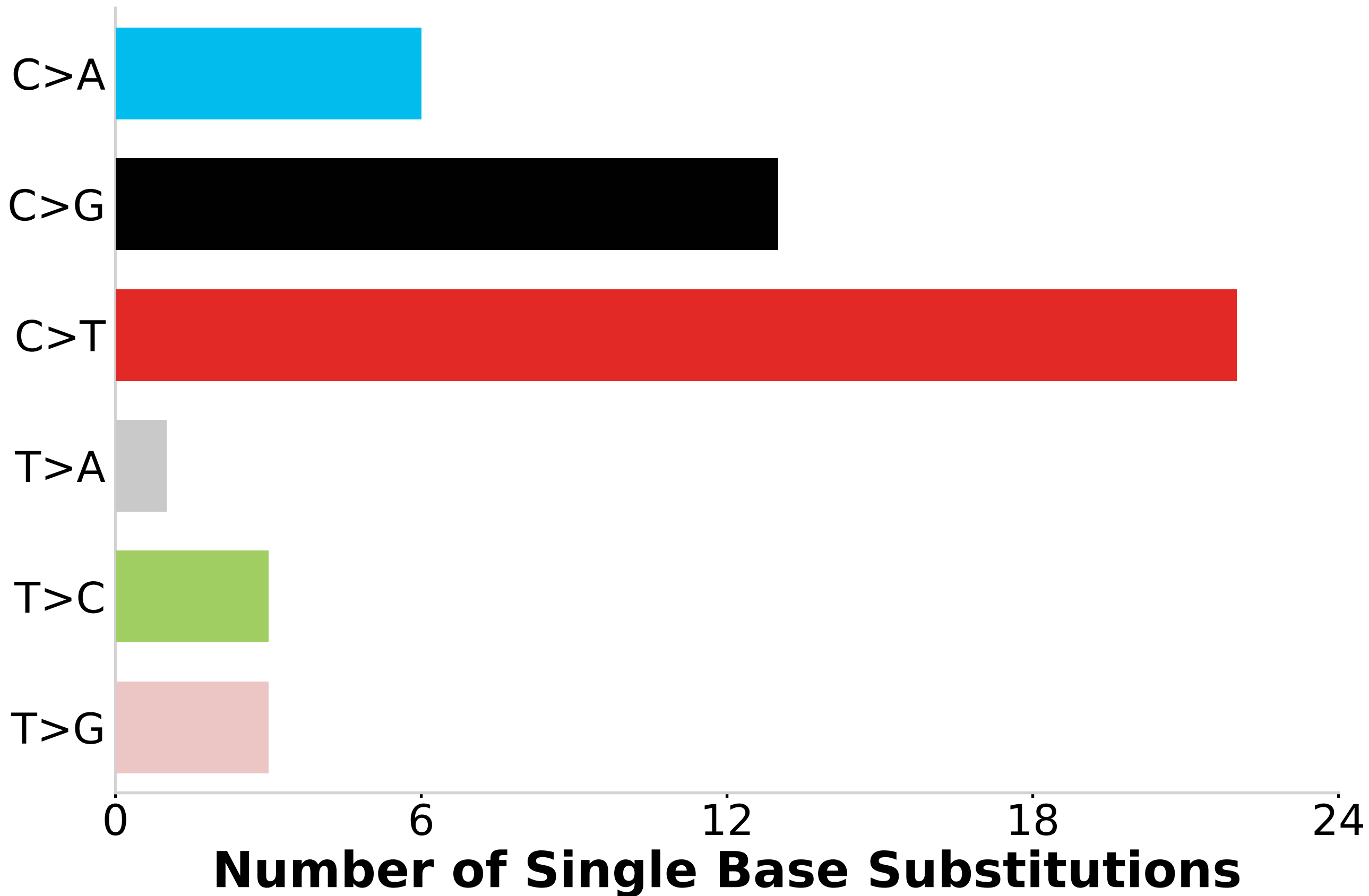
TCGA-FD-A5BZ-01A-11D-A289-08: 36 subs



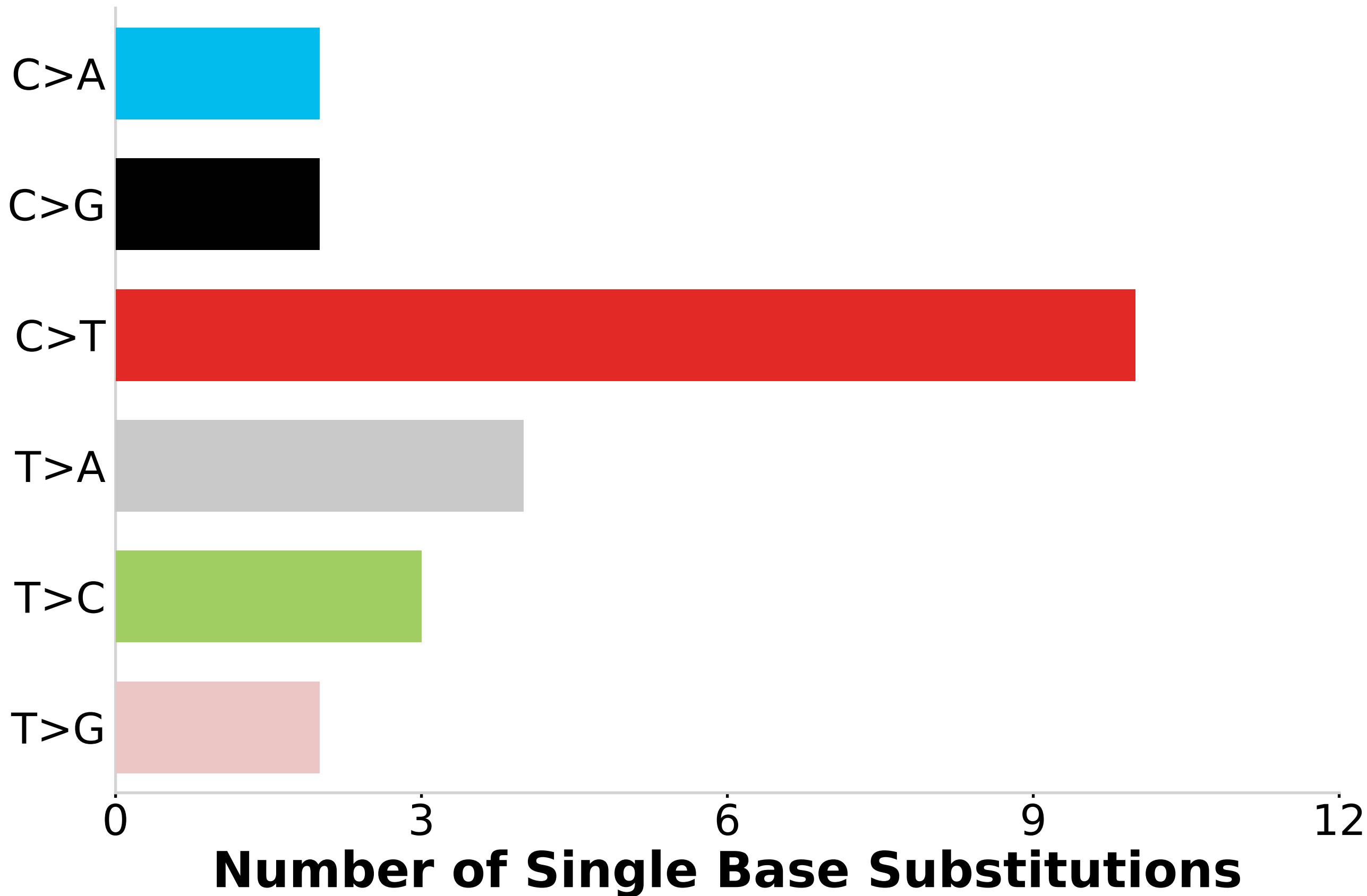
TCGA-FD-A5C0-01A-11D-A289-08: 47 subs



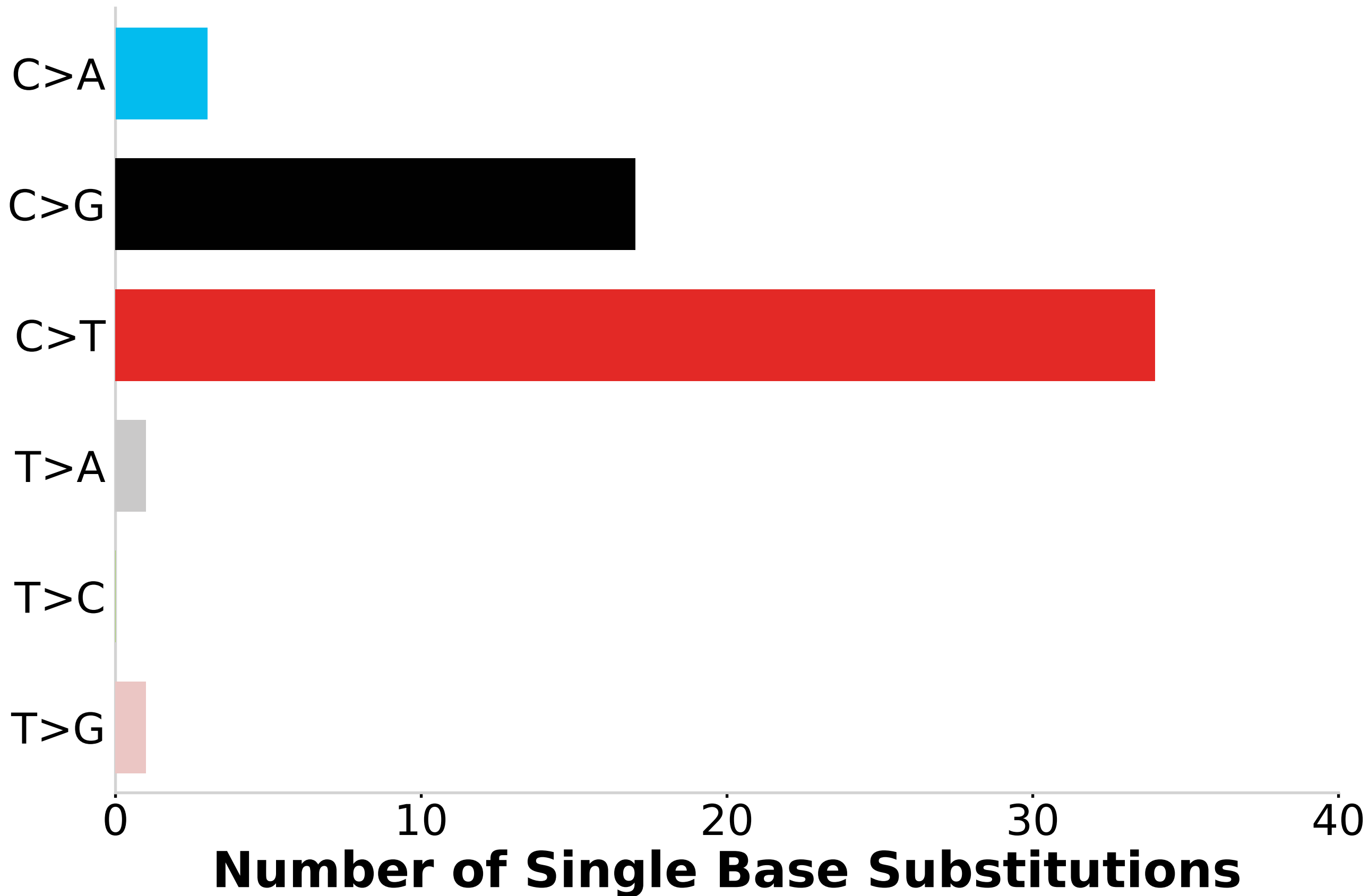
TCGA-FD-A5C1-01A-11D-A289-08: 48 subs



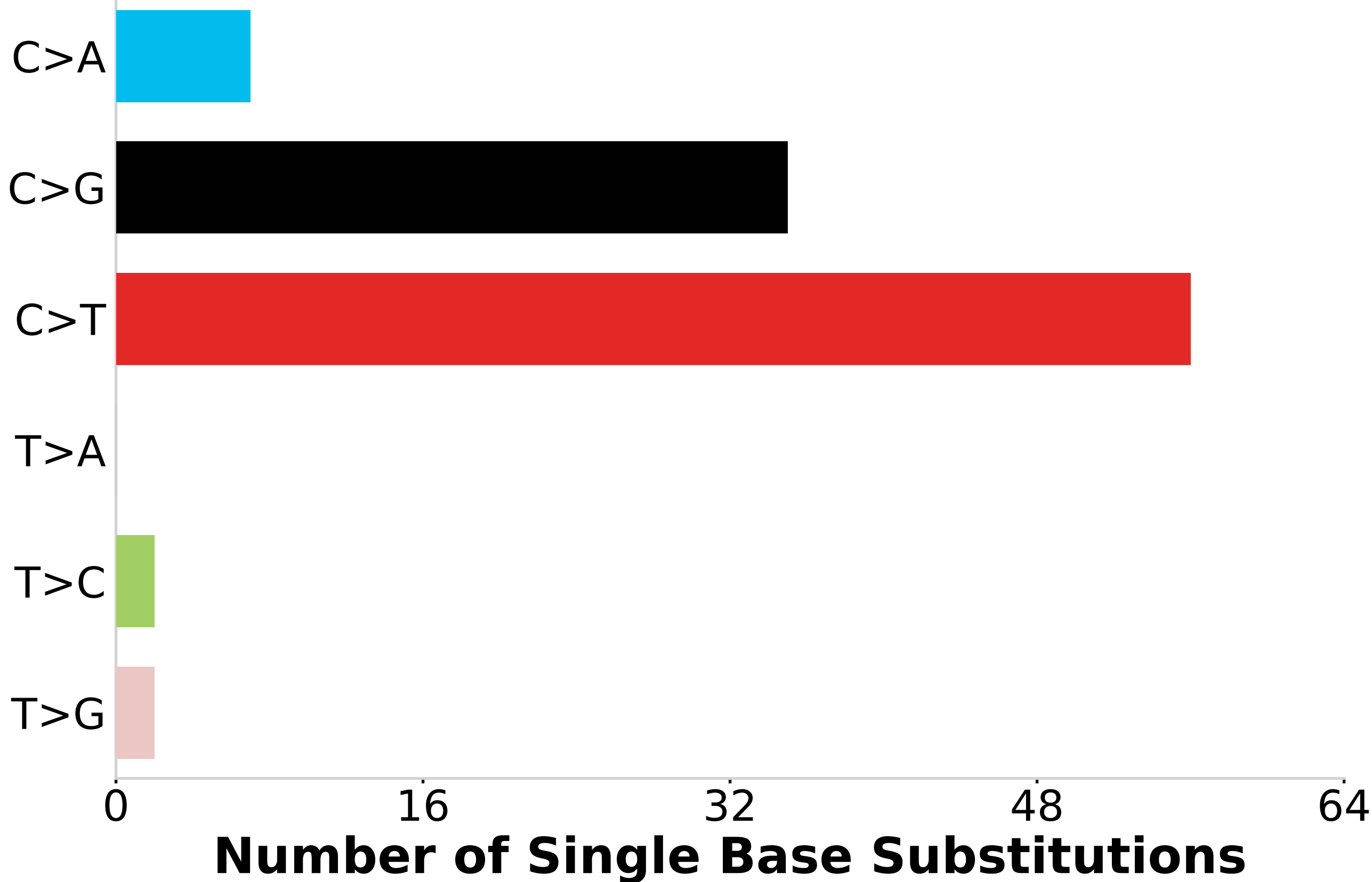
TCGA-FD-A62N-01A-11D-A30E-08: 23 subs



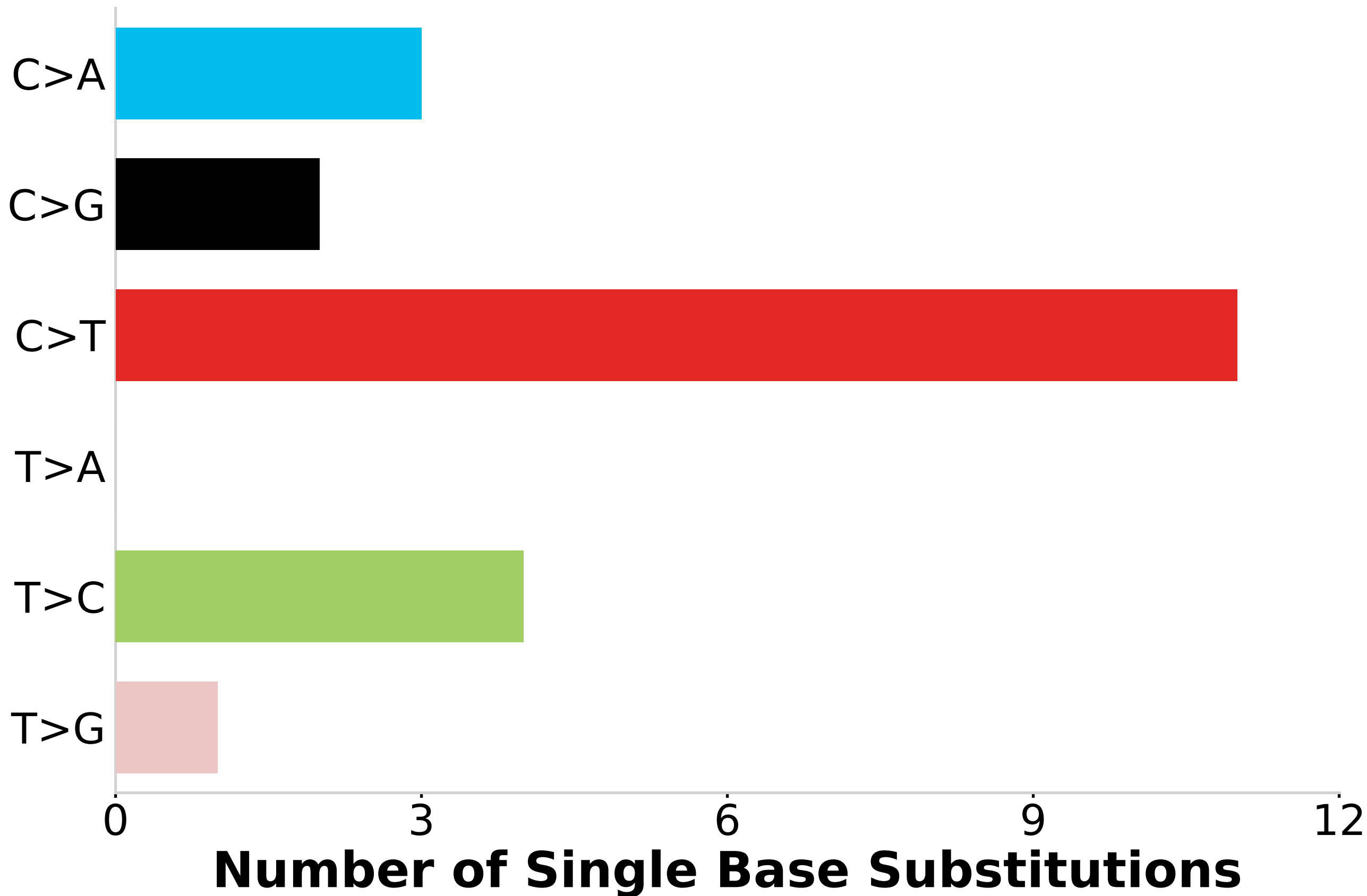
TCGA-FD-A620-01A-11D-A30E-08: 56 subs



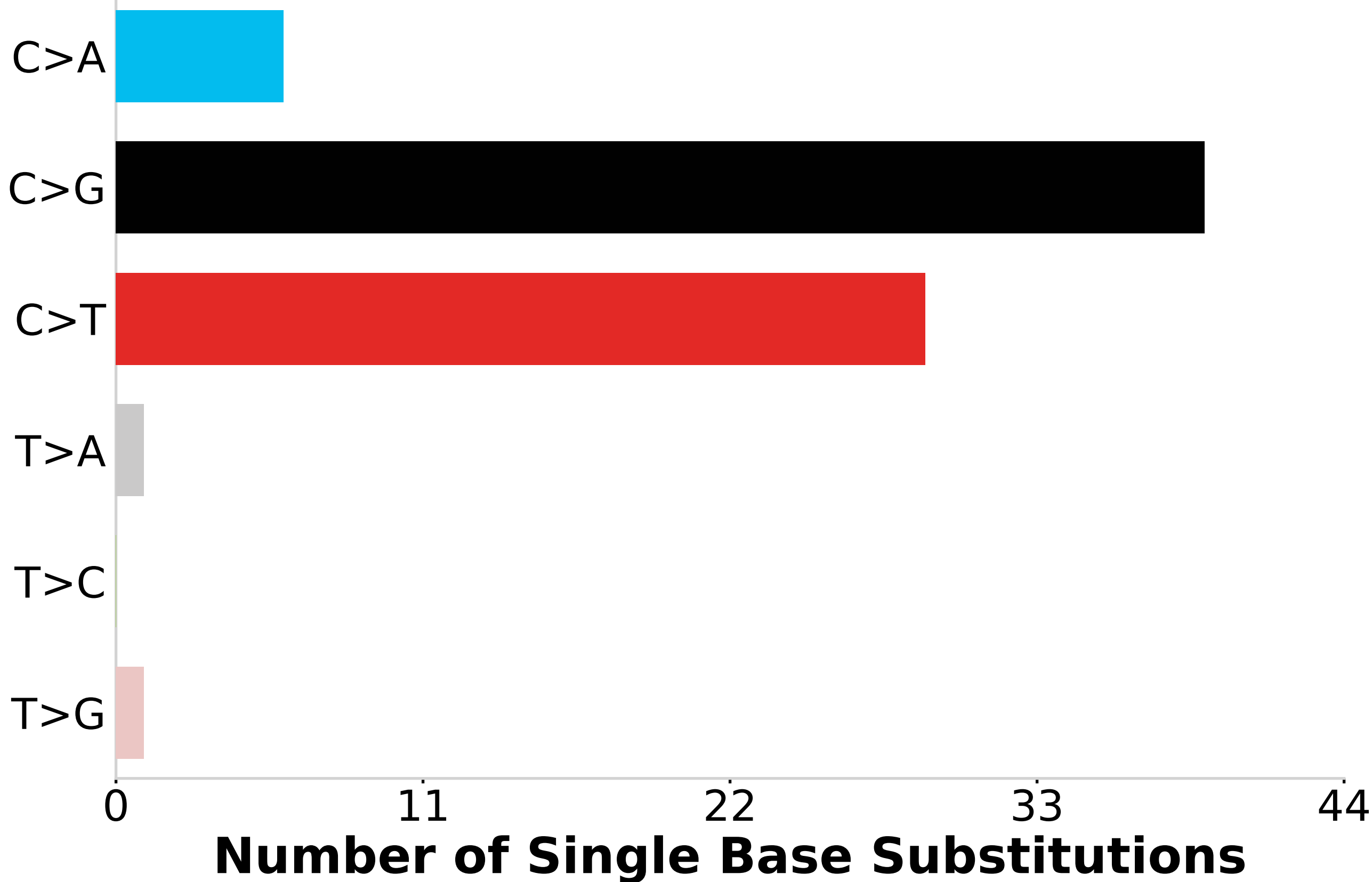
TCGA-FD-A62P-01A-32D-A30E-08: 102 sub



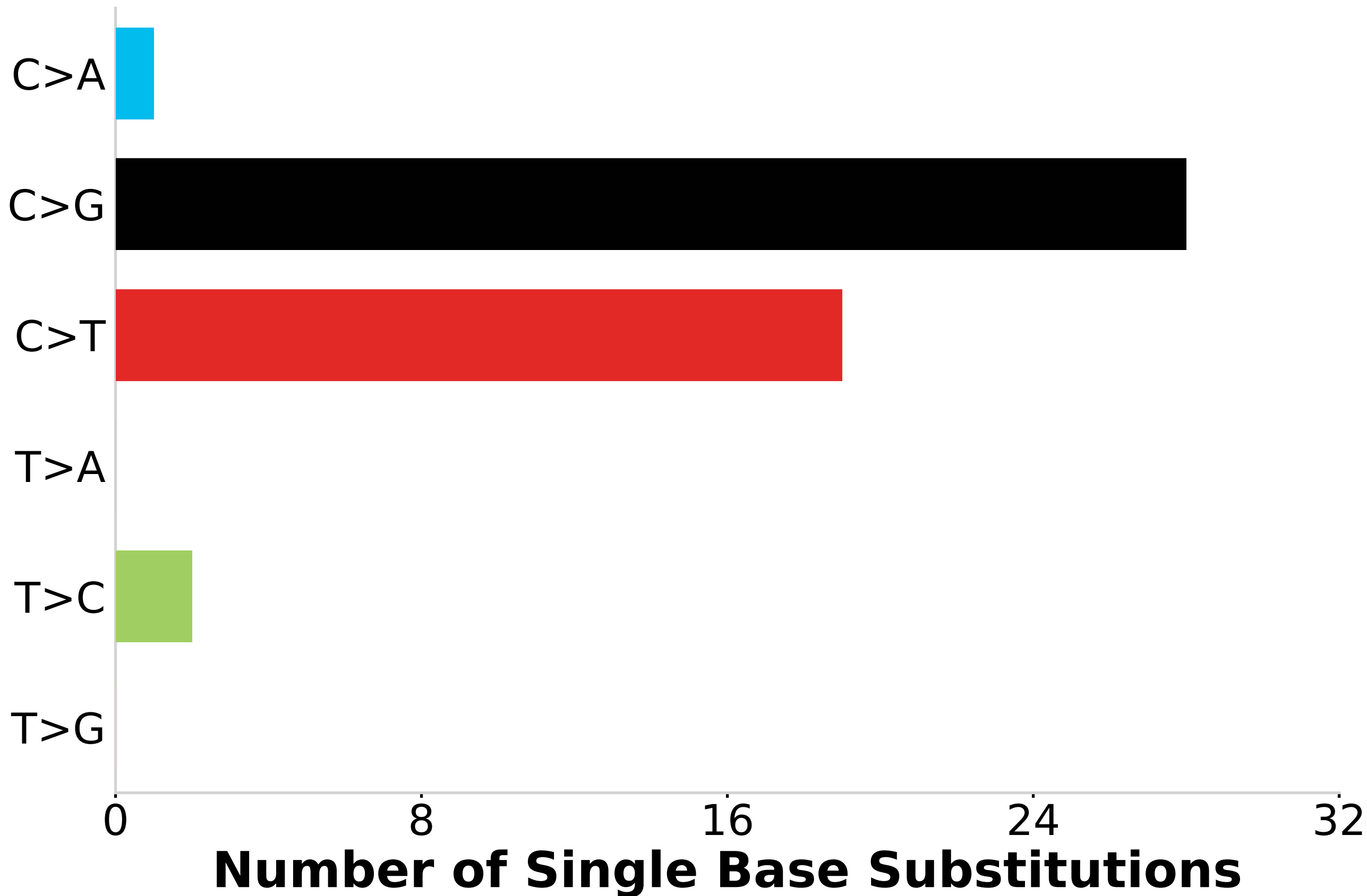
TCGA-FD-A62S-01A-11D-A30E-08: 21 subs



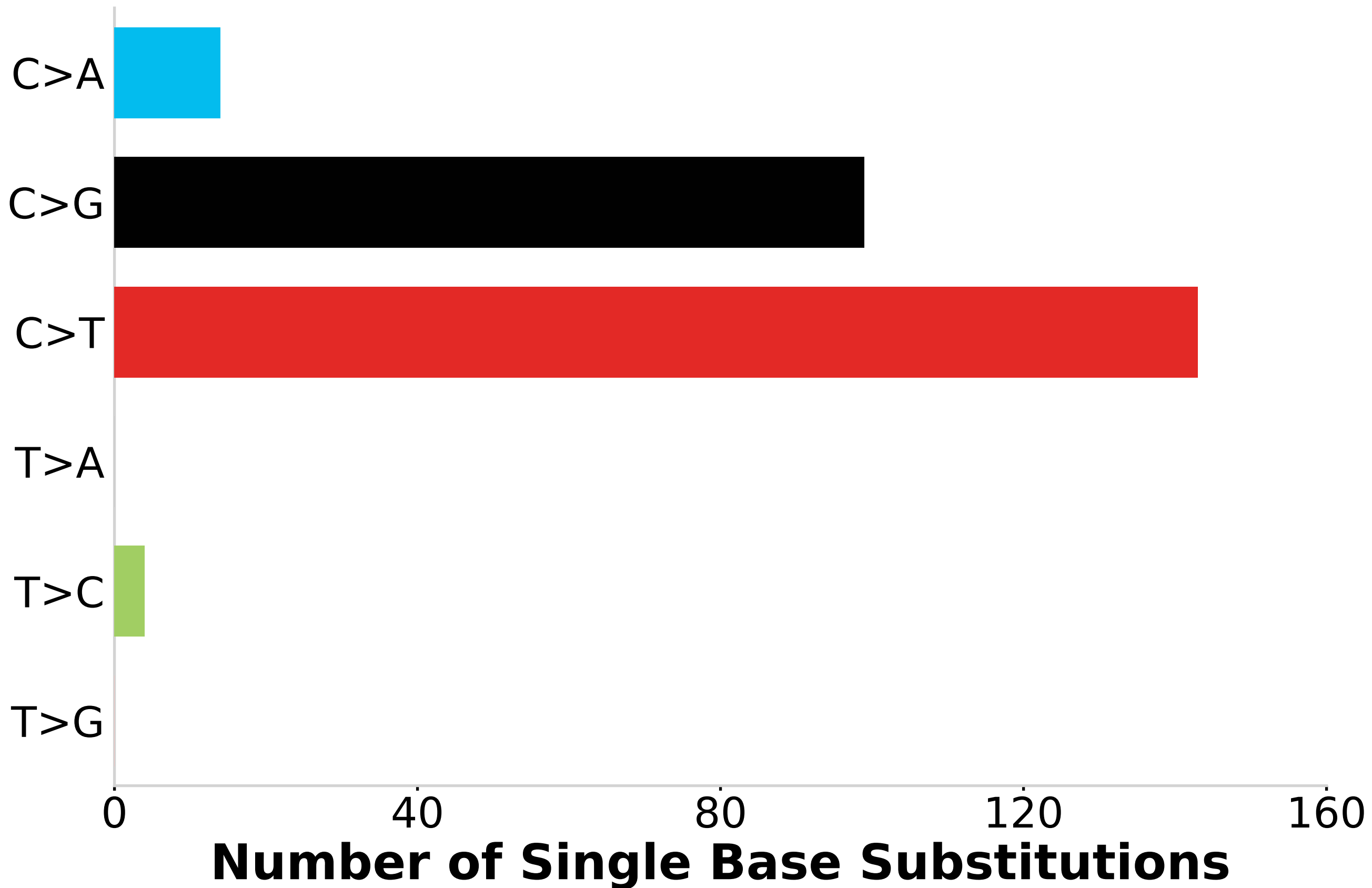
TCGA-FD-A6TA-01A-12D-A339-08: 76 subs



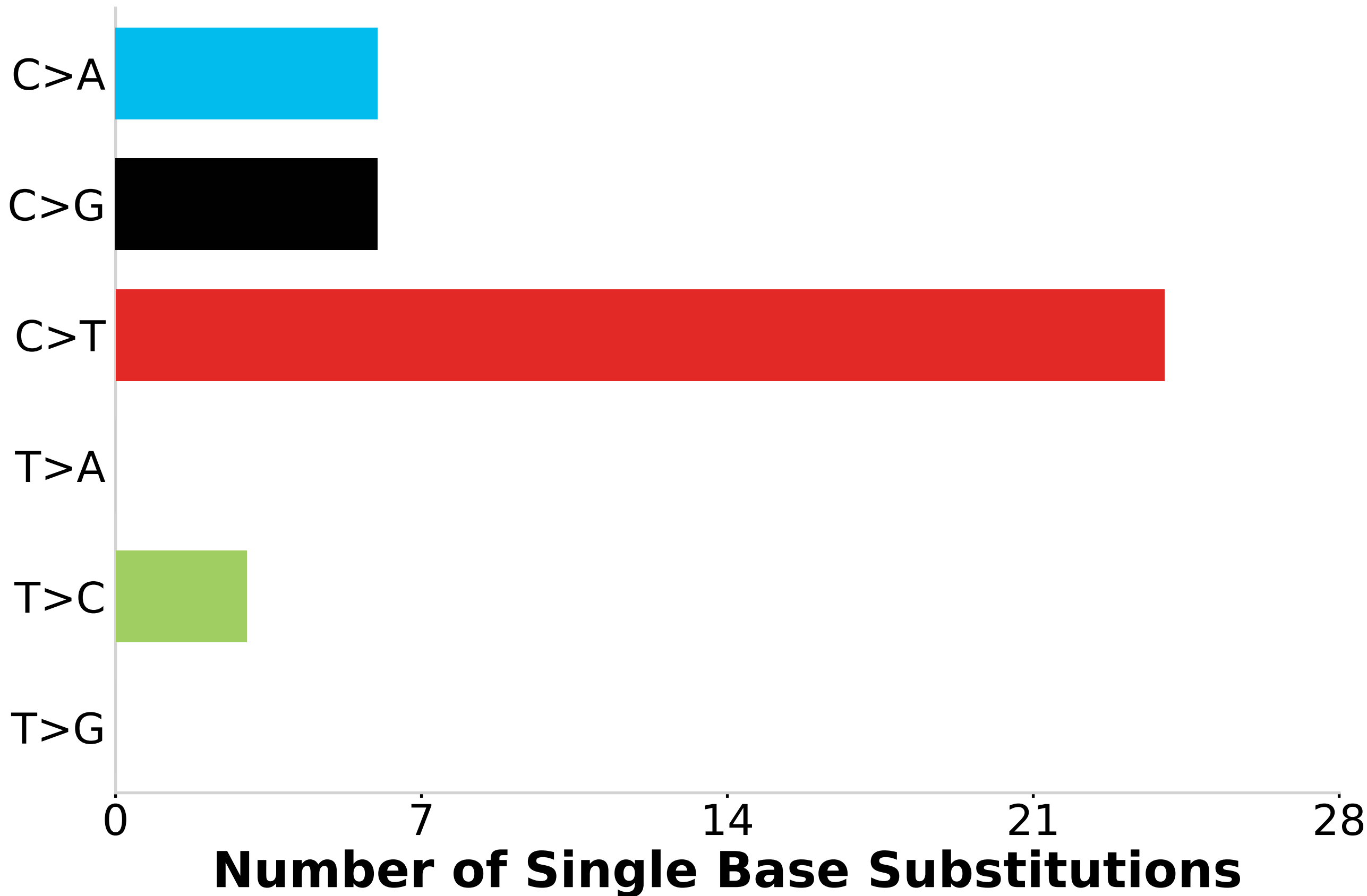
TCGA-FD-A6TB-01A-12D-A339-08: 50 subs



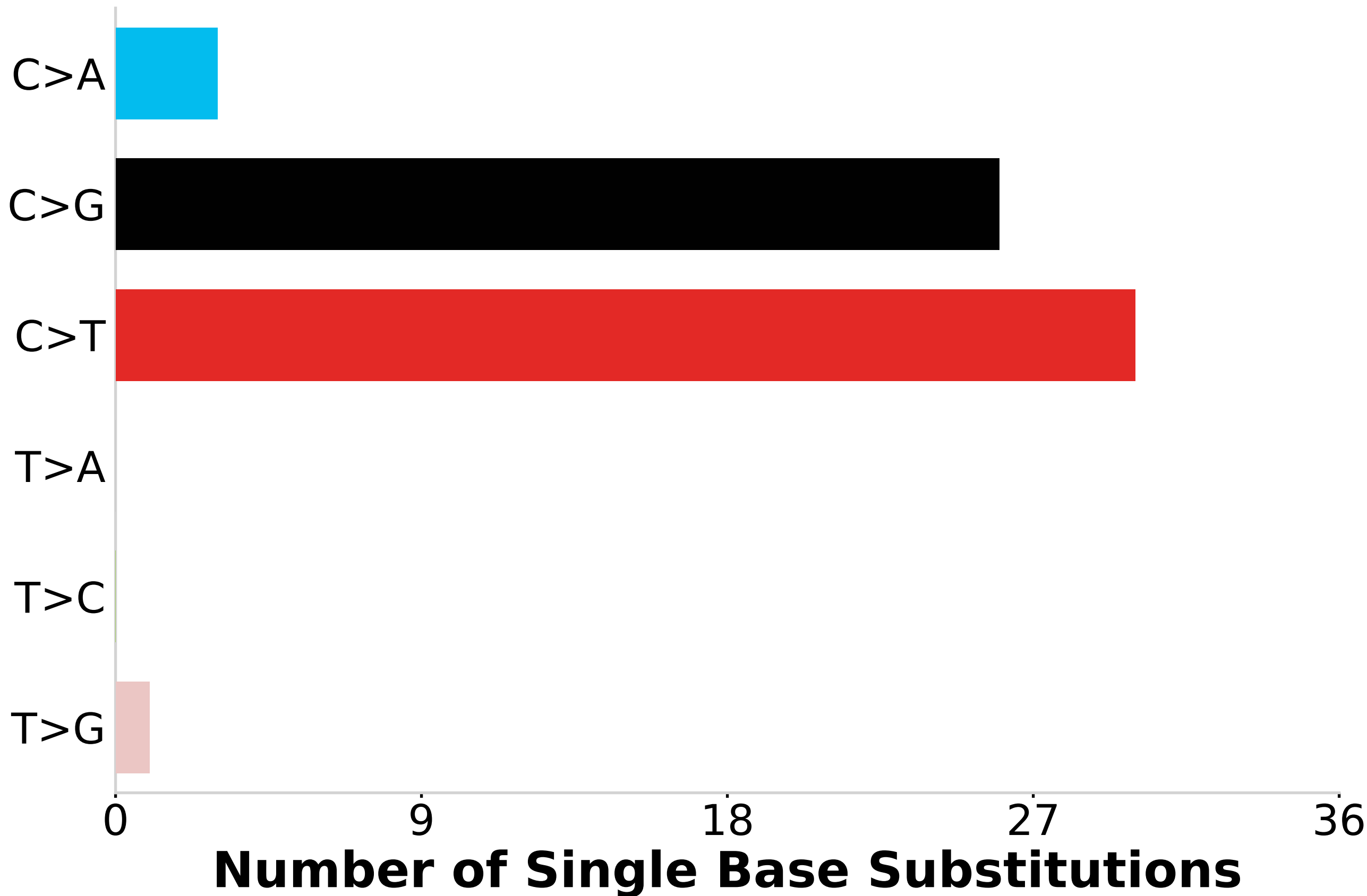
TCGA-FD-A6TC-01A-21D-A339-08: 260 sub



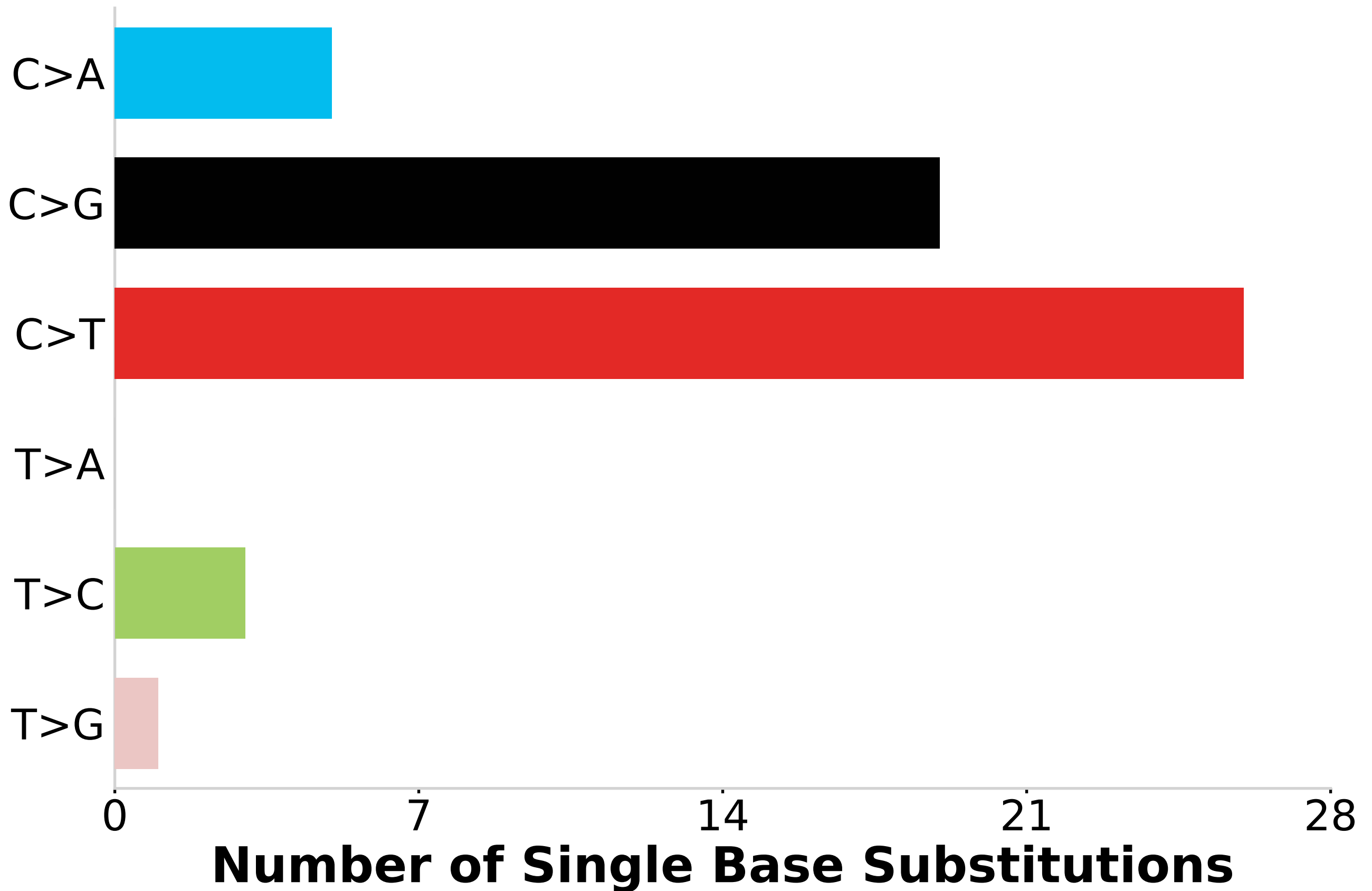
TCGA-FD-A6TD-01A-51D-A339-08: 39 subs



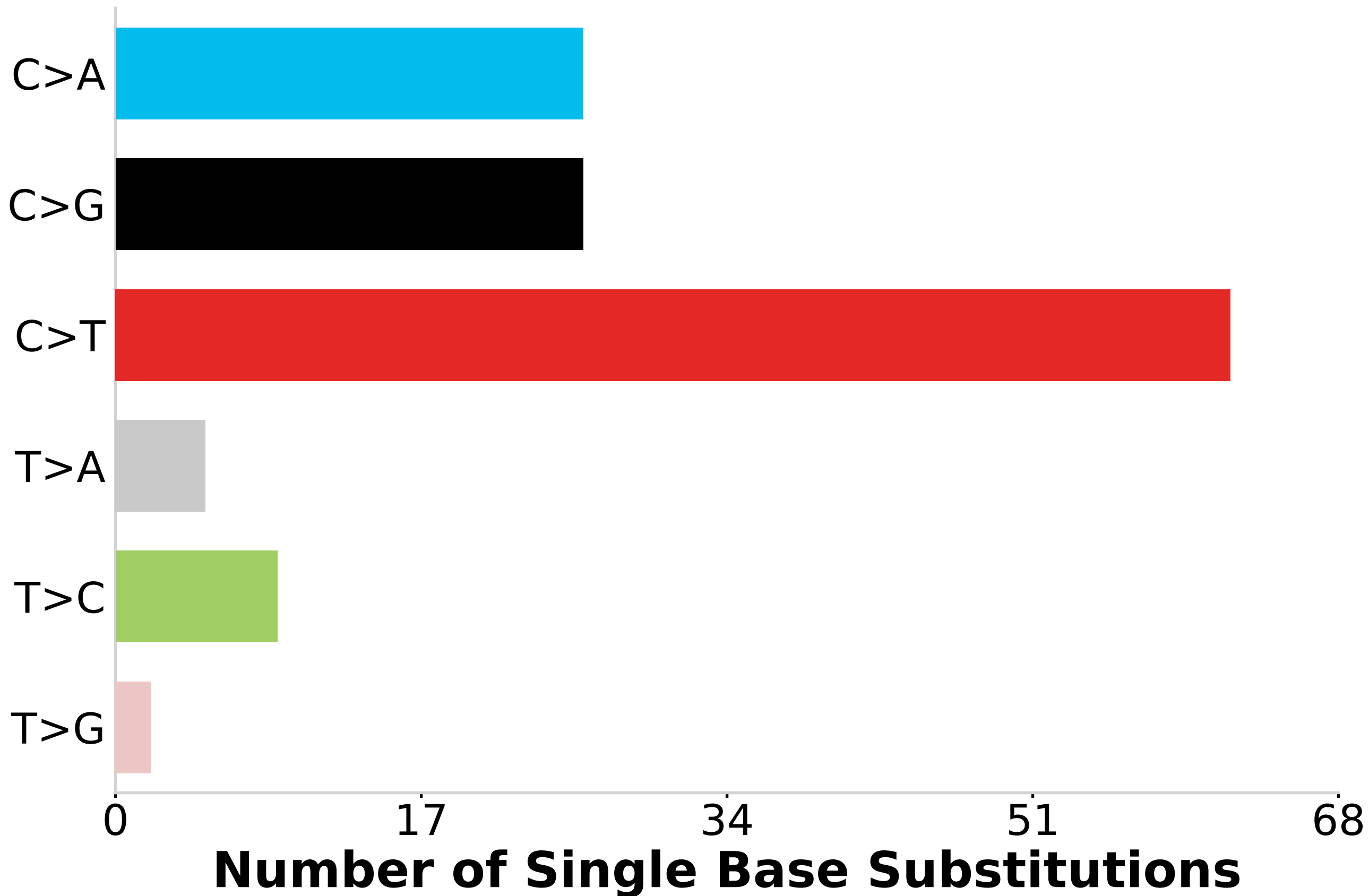
TCGA-FD-A6TE-01A-12D-A339-08: 60 subs



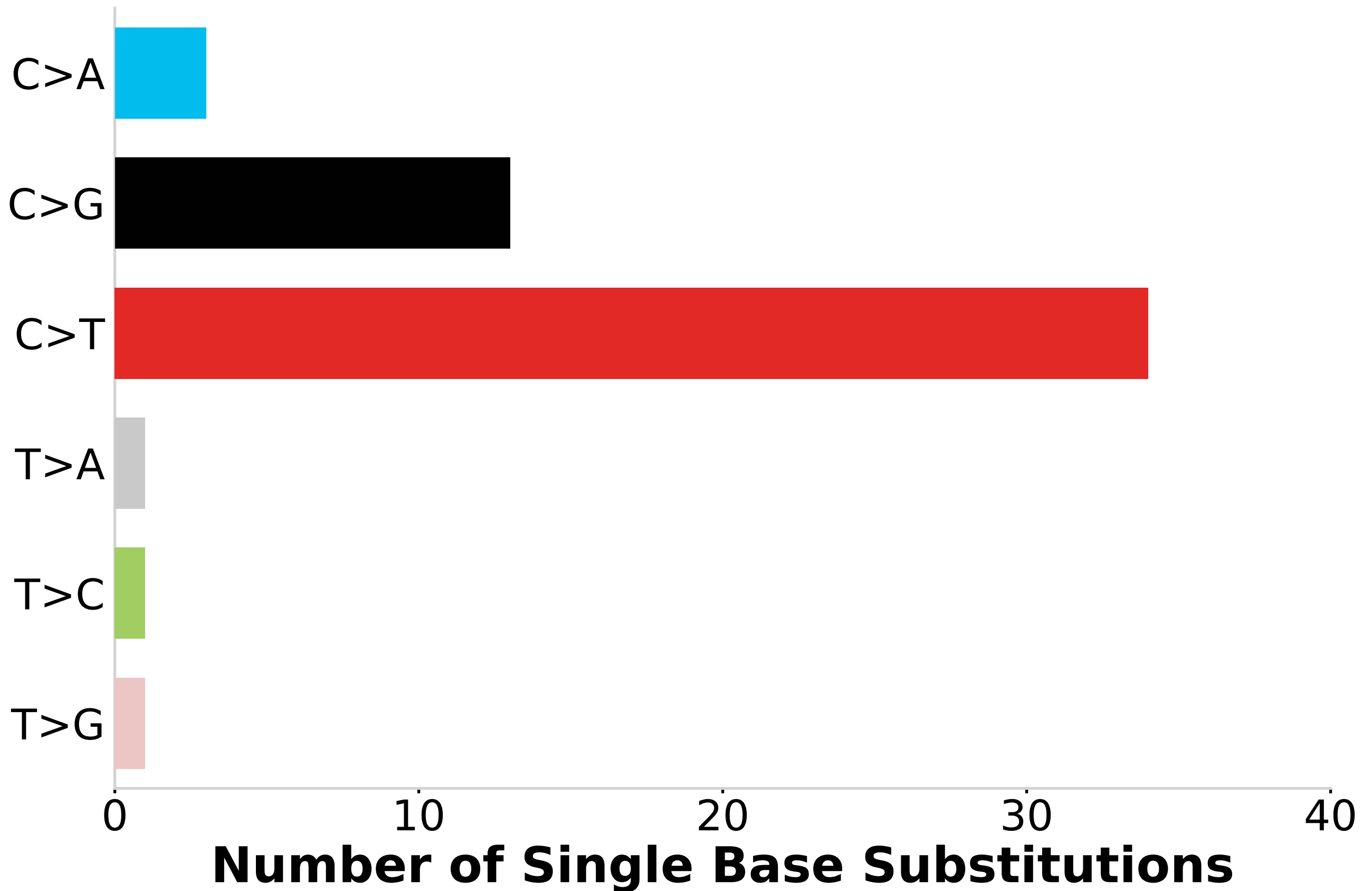
TCGA-FD-A6TF-01A-52D-A32B-08: 54 subs



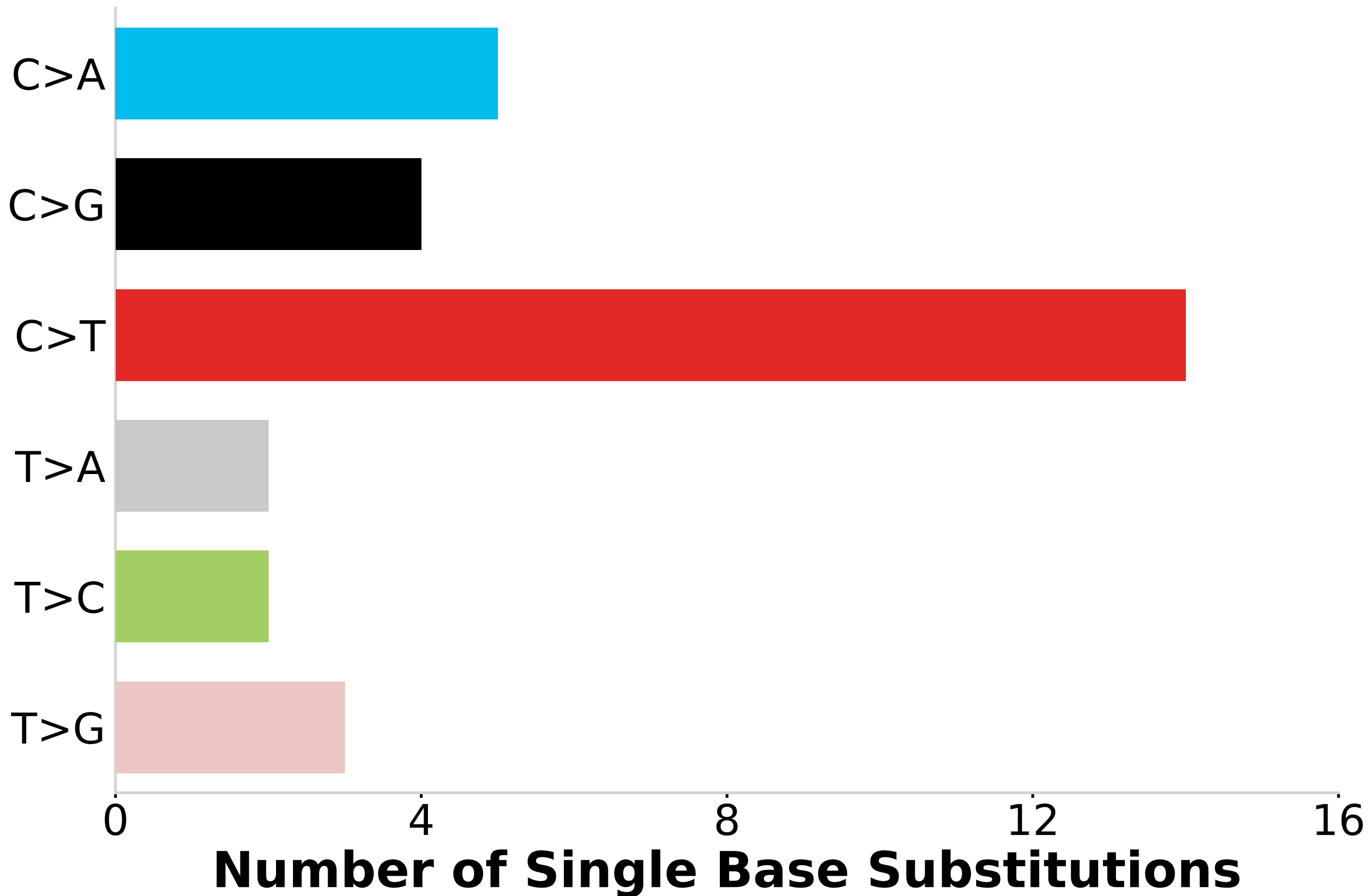
TCGA-FD-A6TG-01A-11D-A32B-08: 130 sub



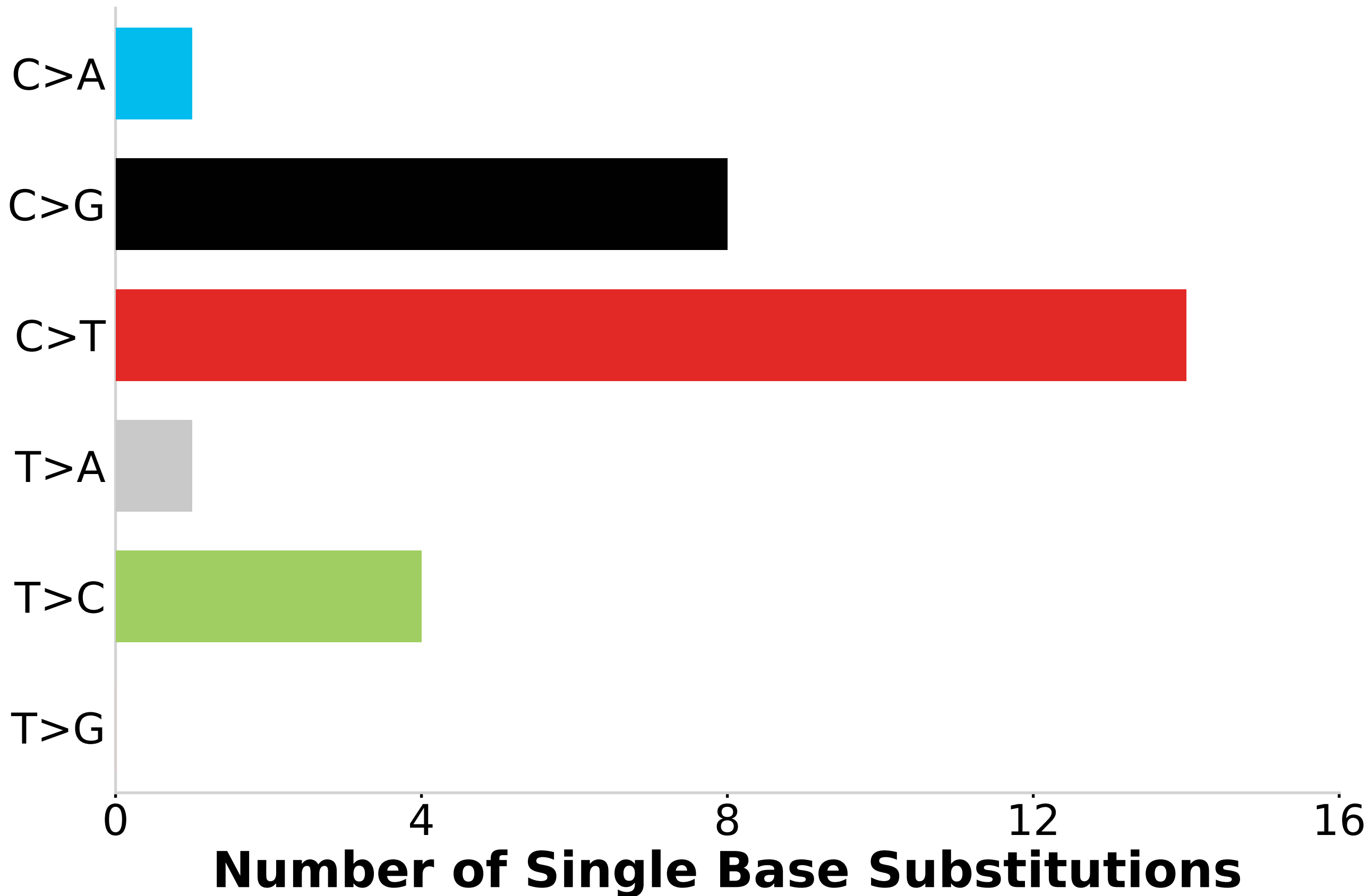
TCGA-FD-A6TH-01A-11D-A32B-08: 53 subs



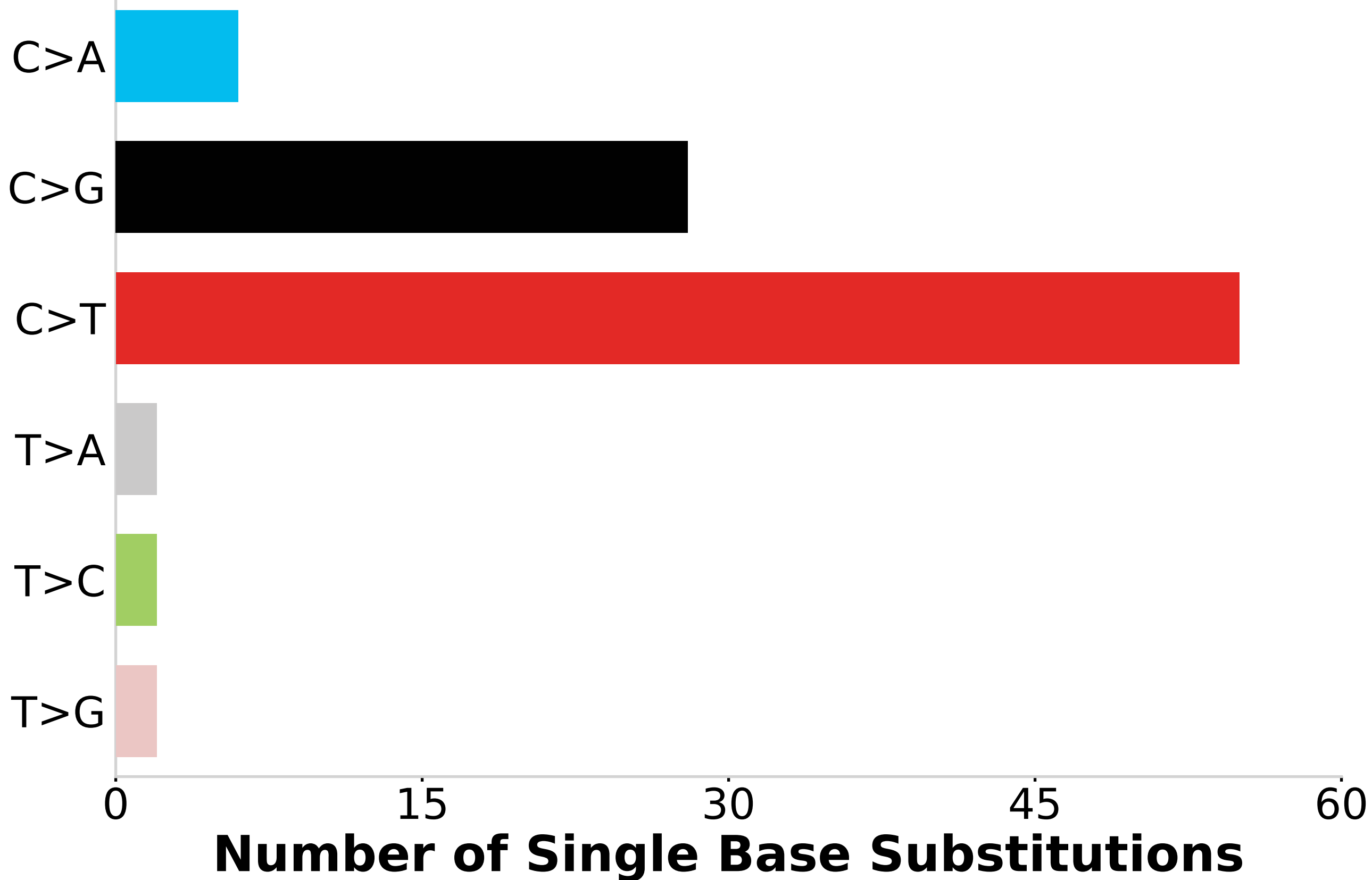
TCGA-FD-A6TI-01A-11D-A32B-08: 30 subs



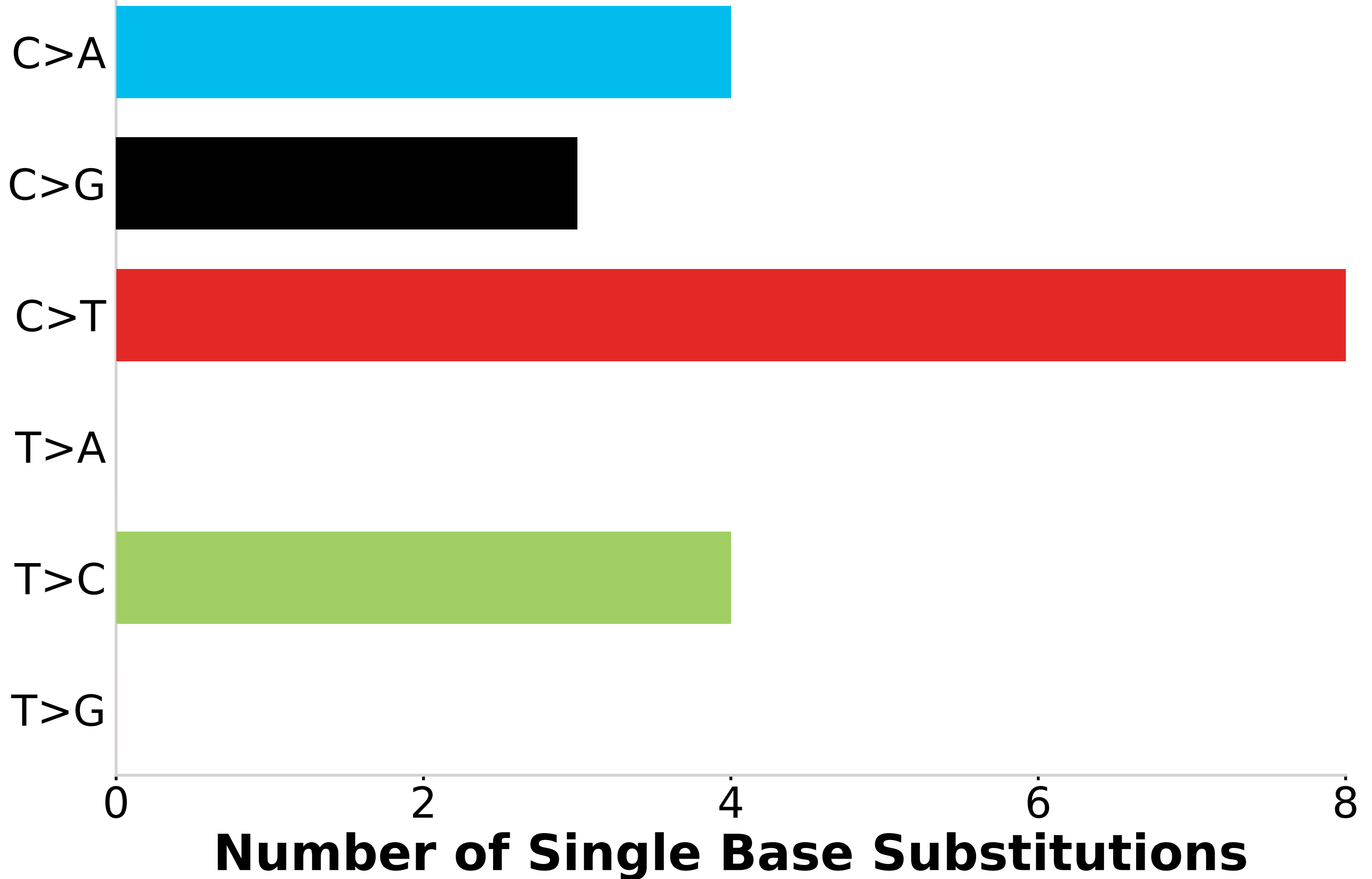
TCGA-FD-A6TK-01A-42D-A339-08: 28 subs



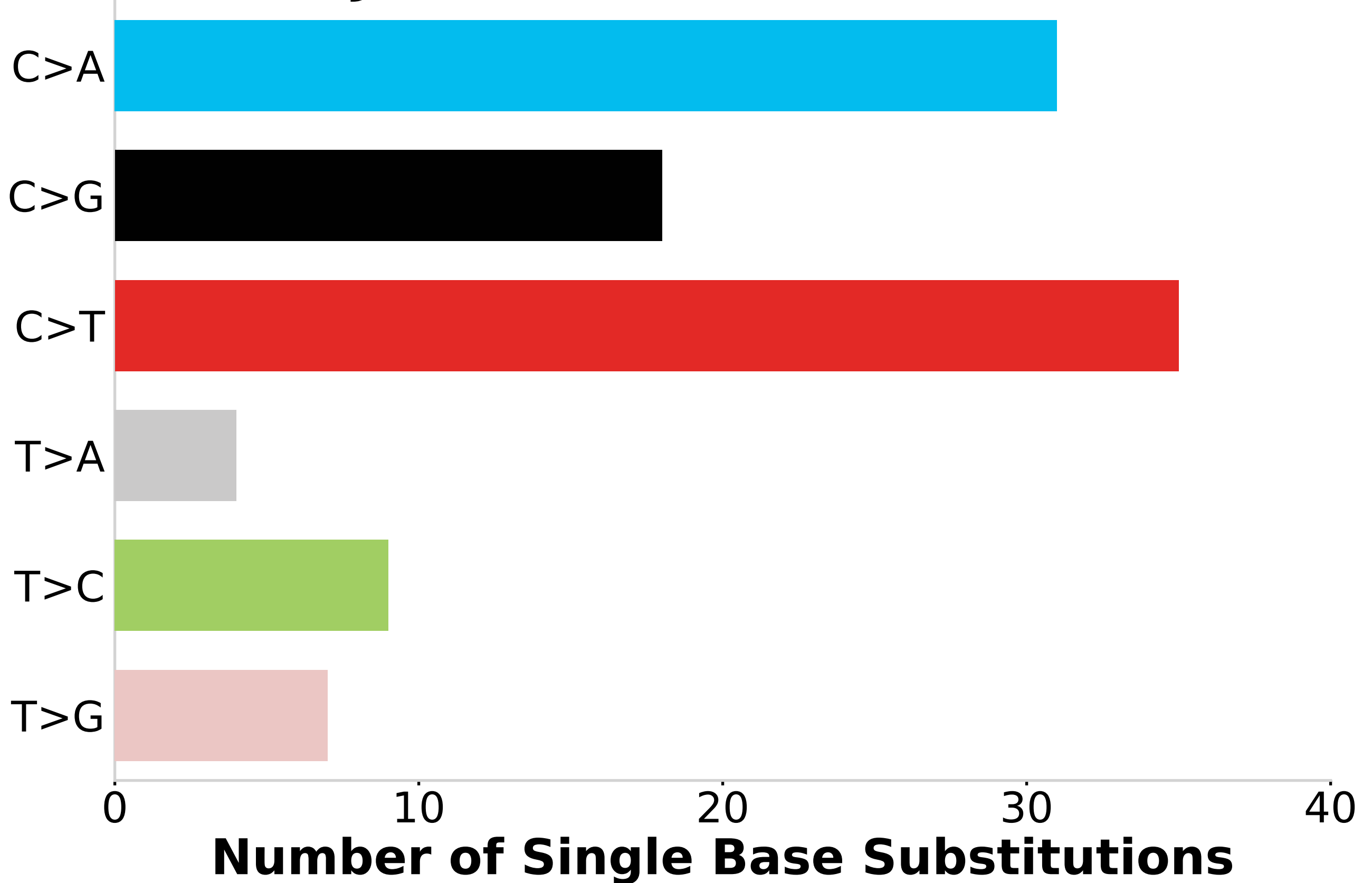
TCGA-FJ-A3Z7-01A-12D-A23M-08: 95 subs



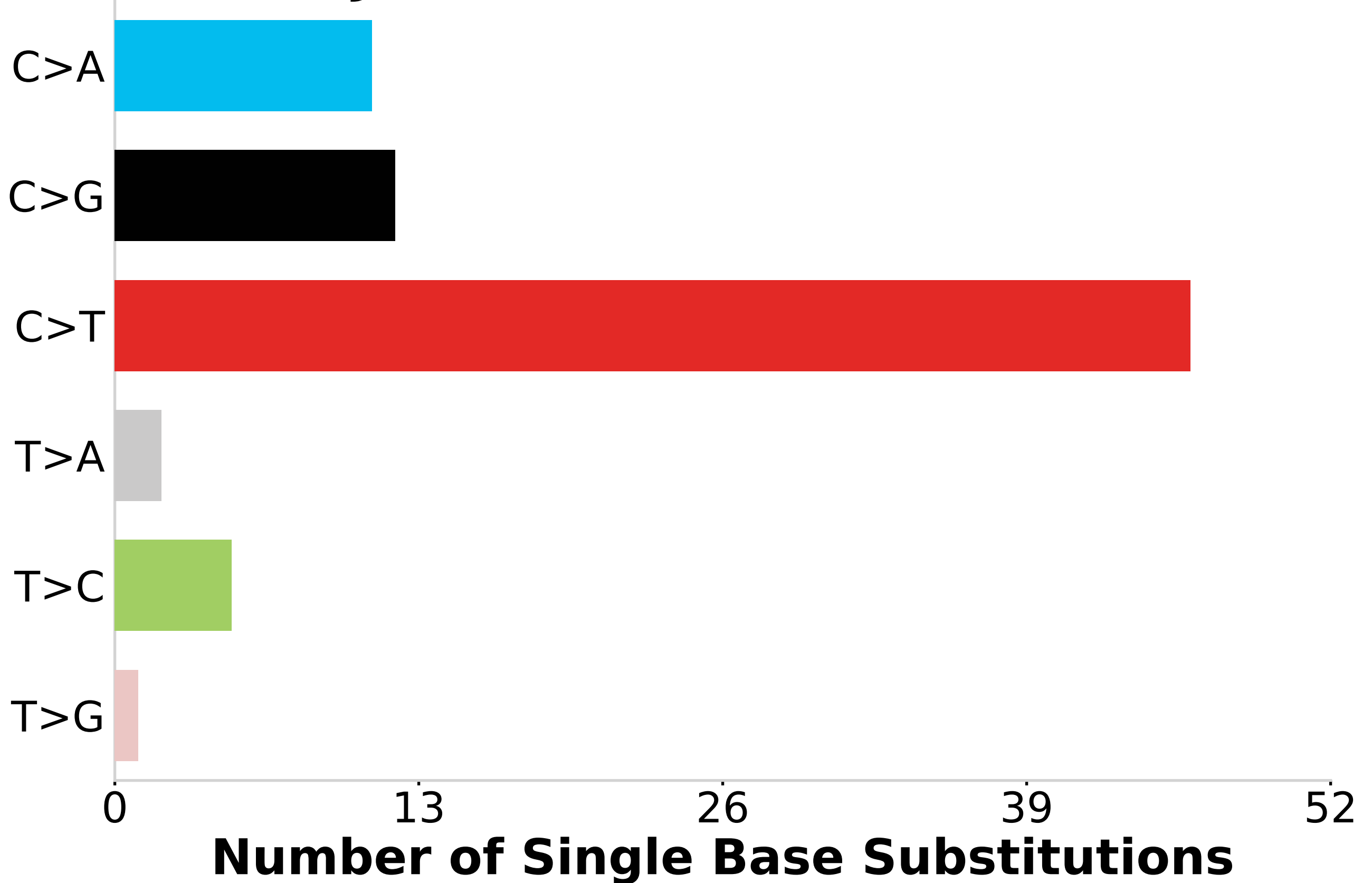
TCGA-FJ-A3Z9-01A-11D-A26M-08: 19 subs



TCGA-FJ-A3ZE-01A-11D-A23M-08: 104 sub



TCGA-FJ-A3ZF-01A-11D-A23M-08: 77 subs



TCGA-FJ-A871-01A-11D-A34U-08: 15 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

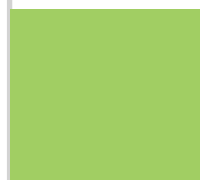
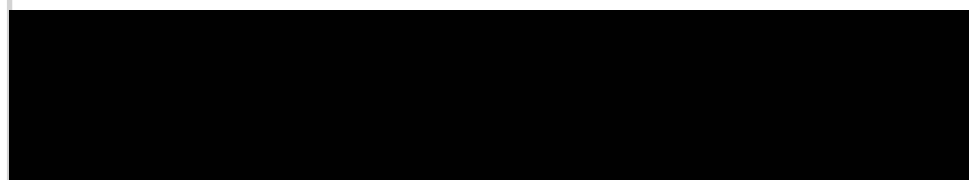
3

6

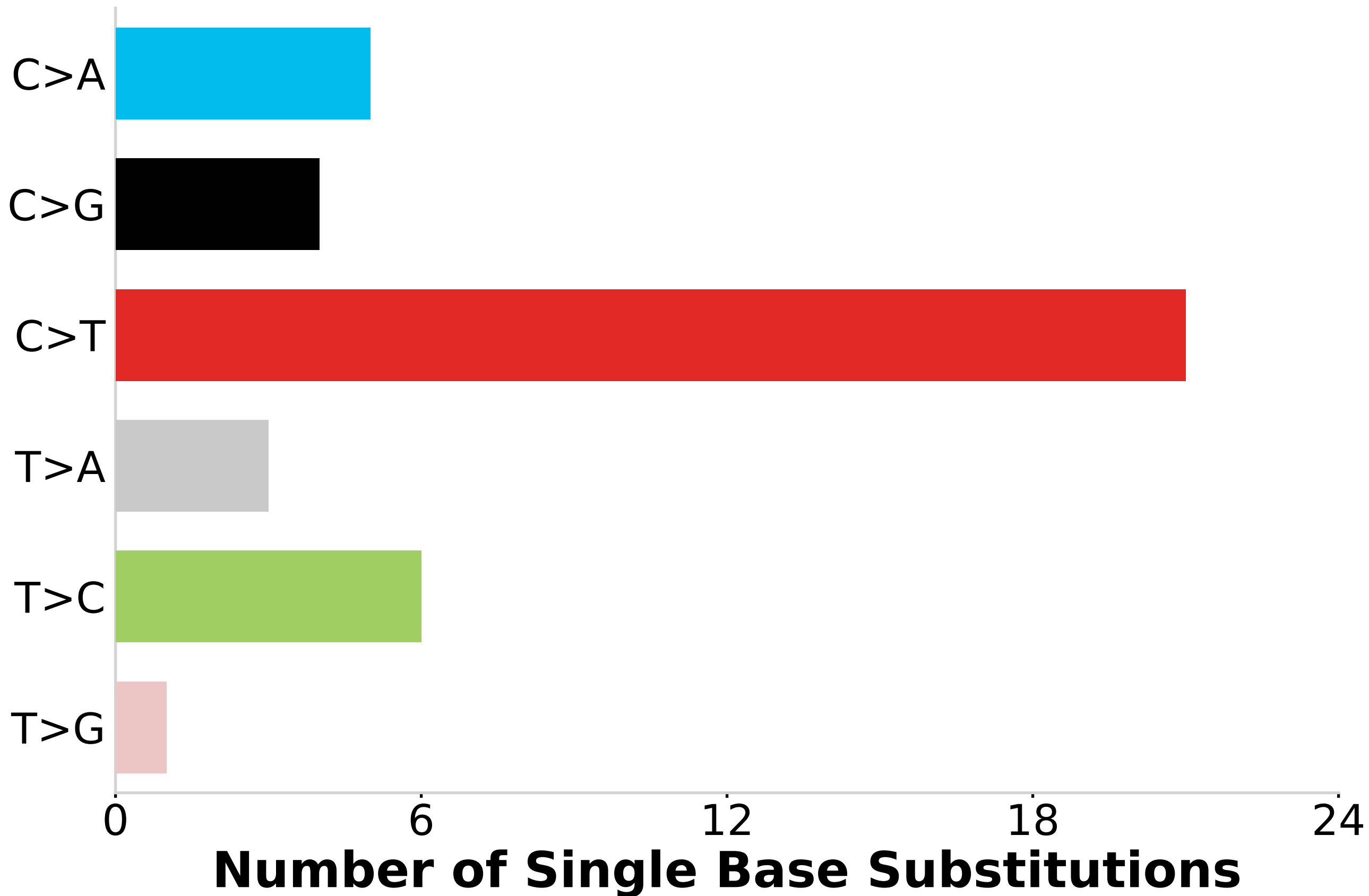
9

12

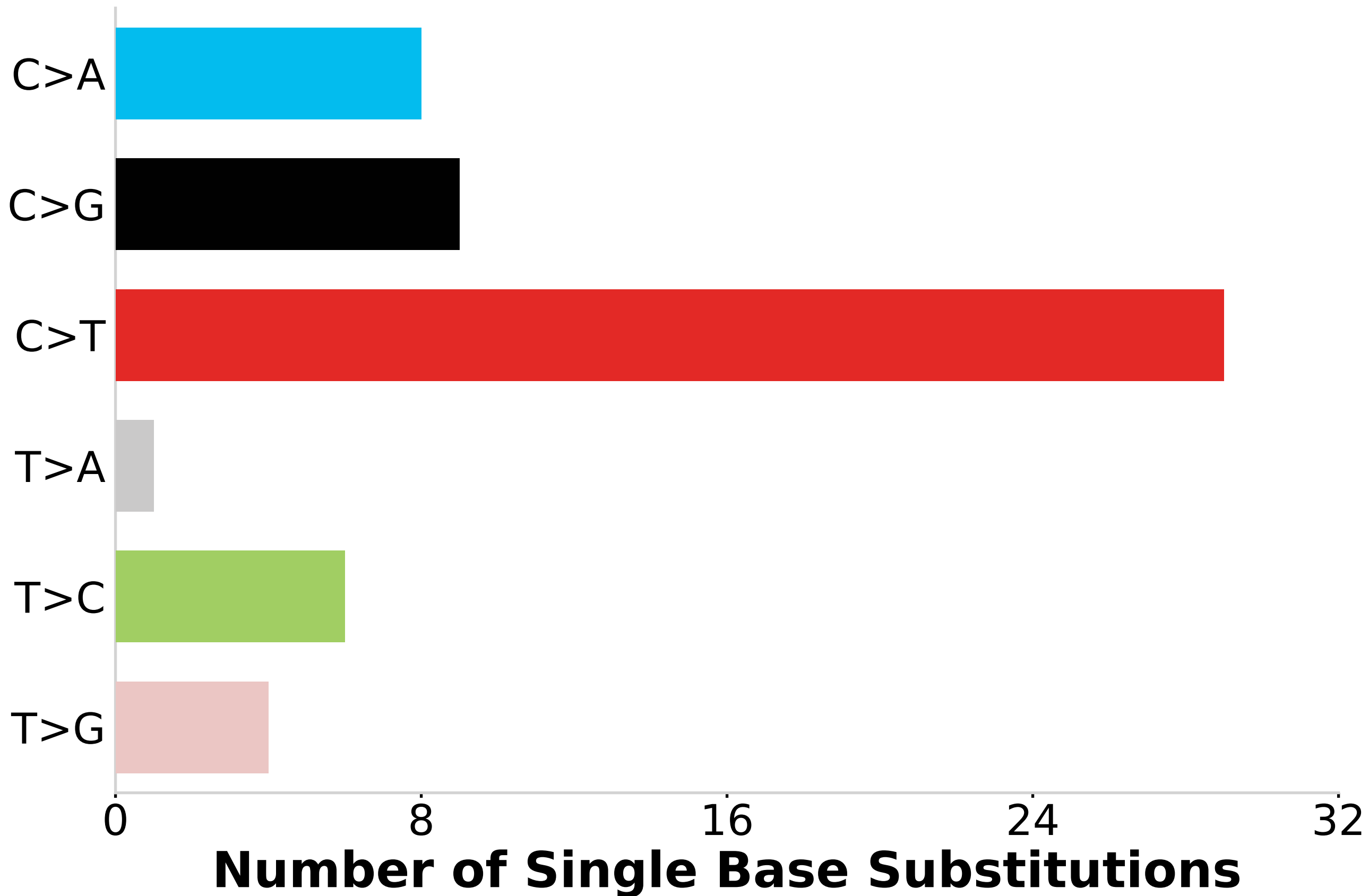
Number of Single Base Substitutions



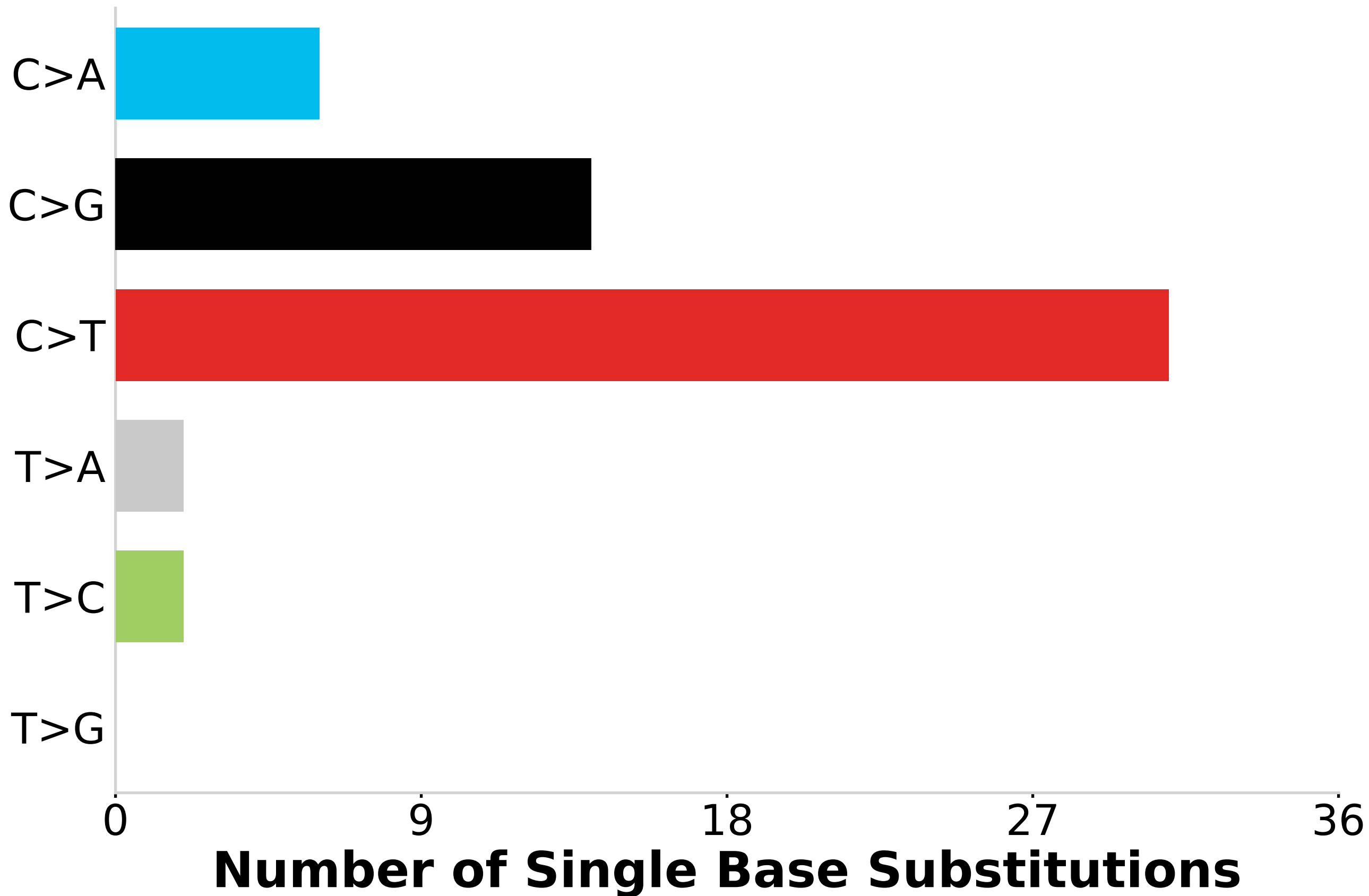
TCGA-FT-A3EE-01A-11D-A202-08: 40 subs



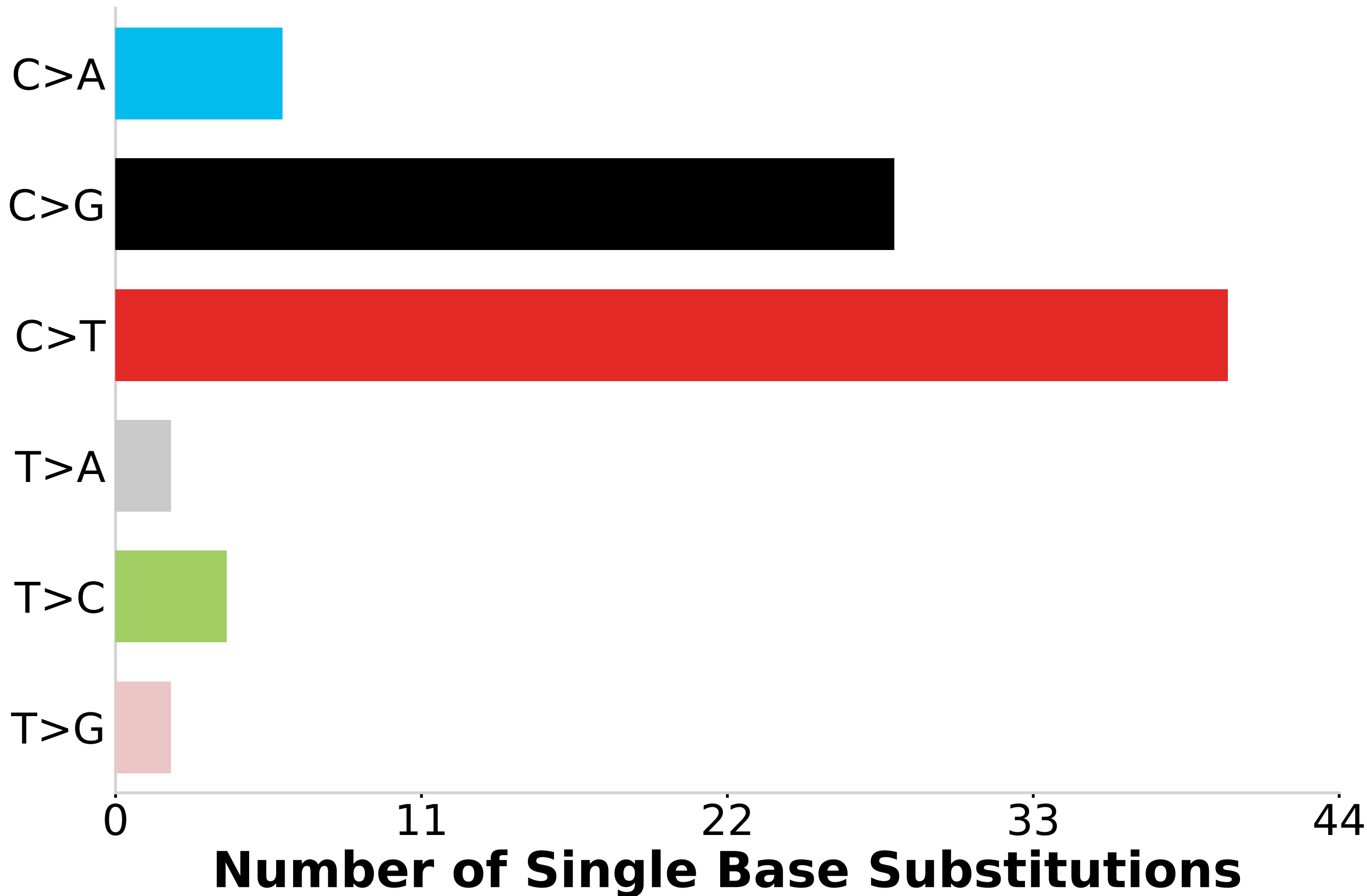
TCGA-FT-A61P-01A-11D-A30E-08: 57 subs



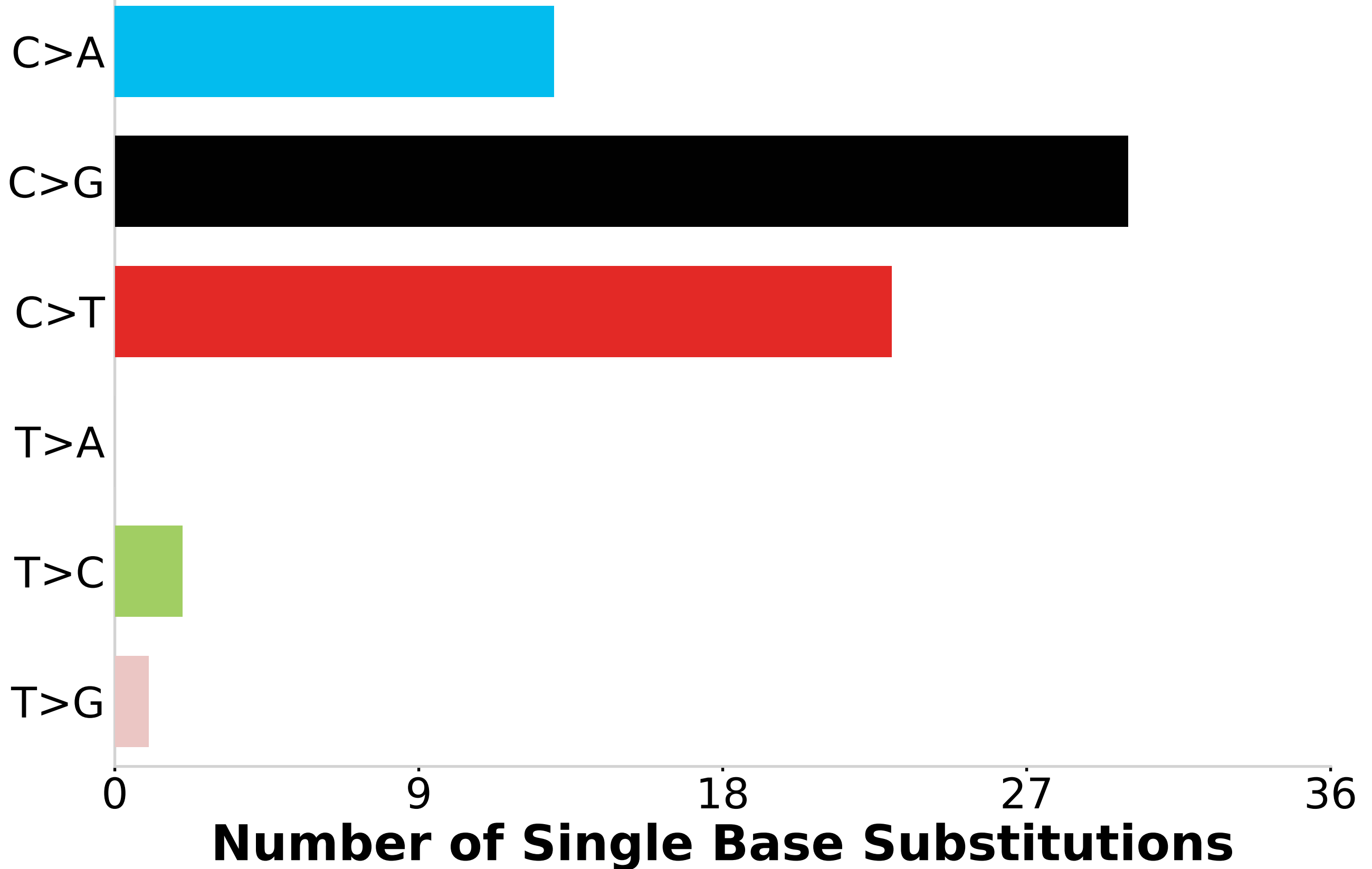
TCGA-G2-A2EC-01A-11D-A17V-08: 55 subs



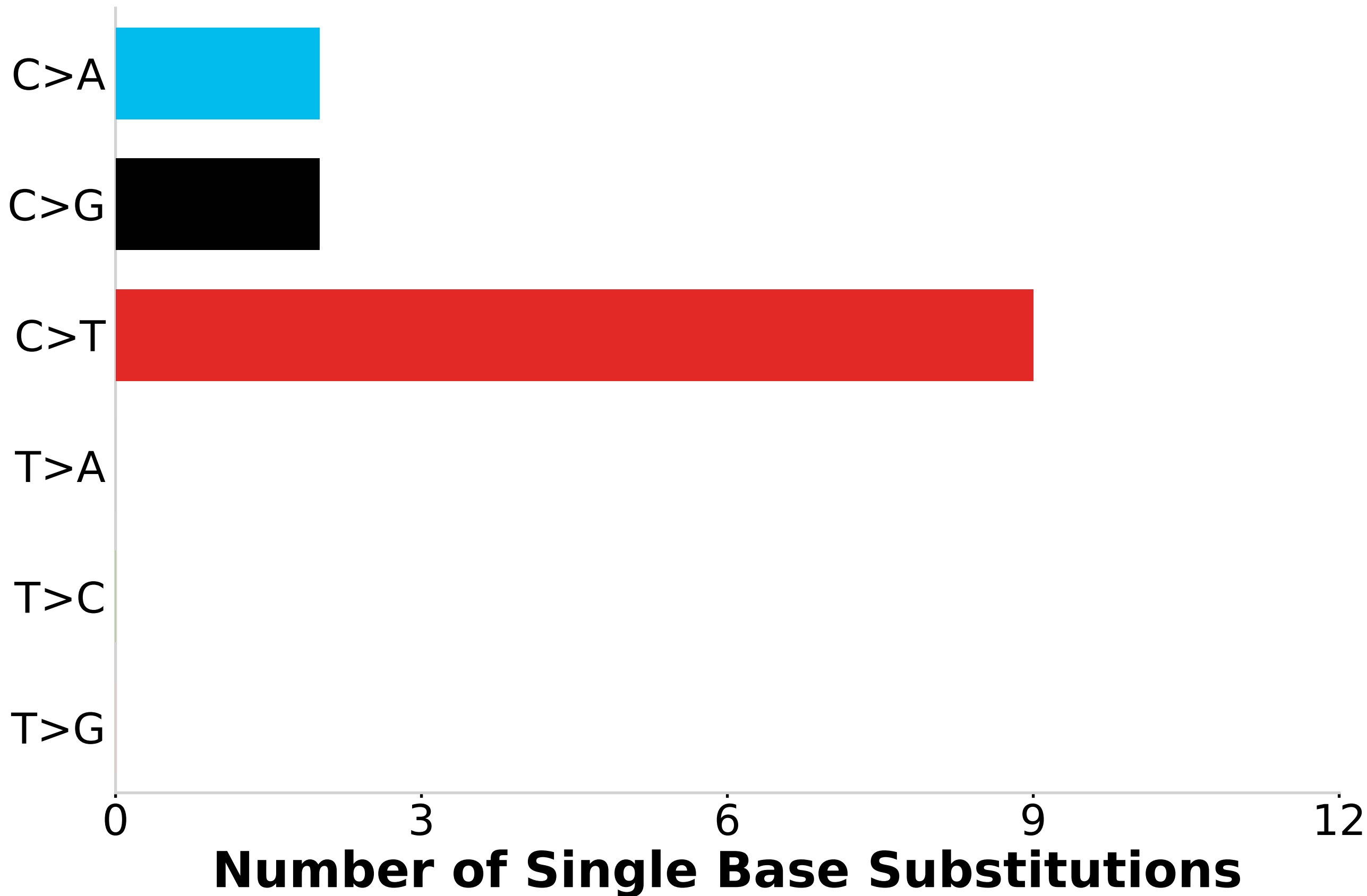
TCGA-G2-A2EF-01A-12D-A18F-08: 82 subs



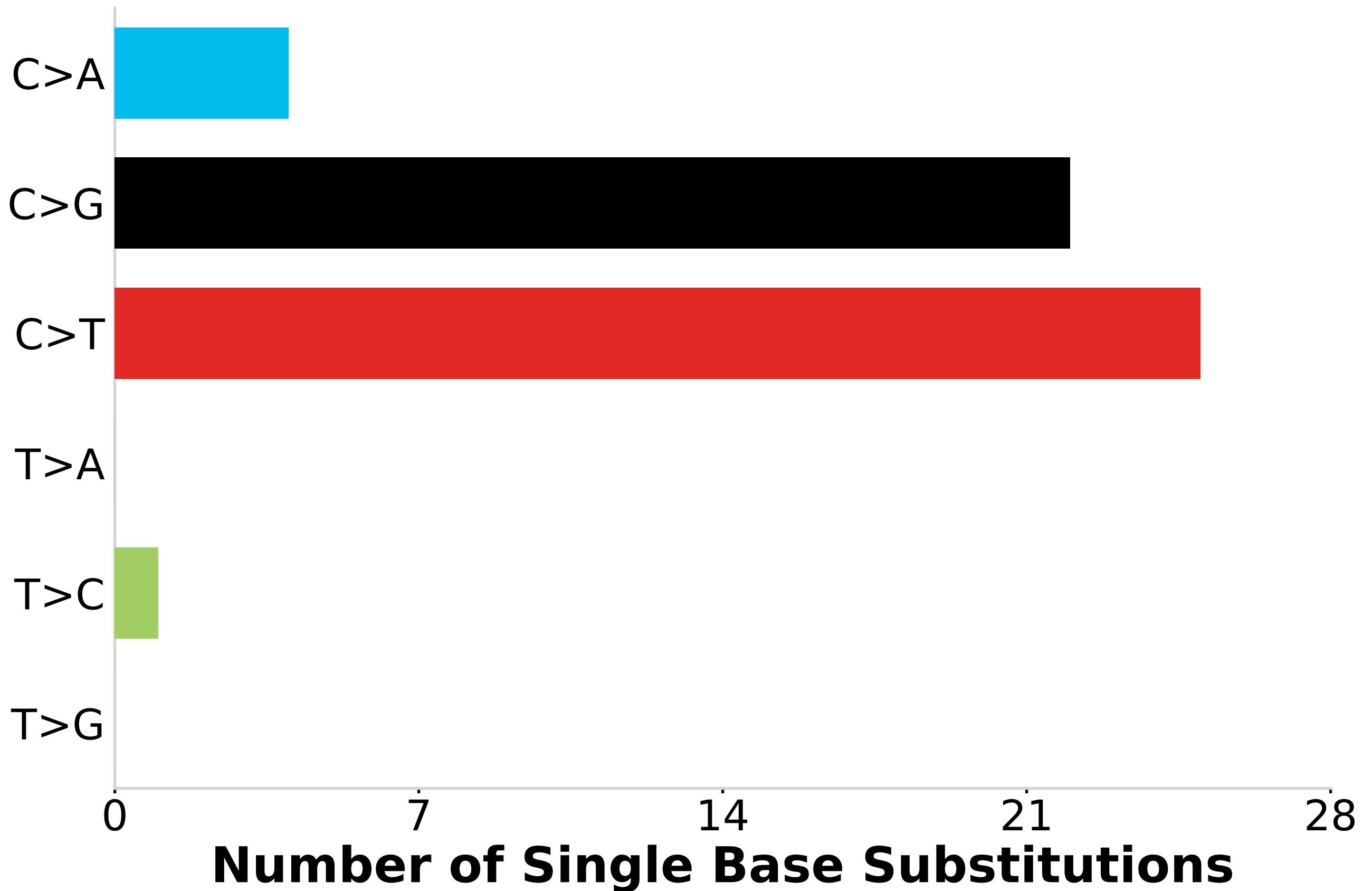
TCGA-G2-A2EJ-01A-11D-A17V-08: 69 subs



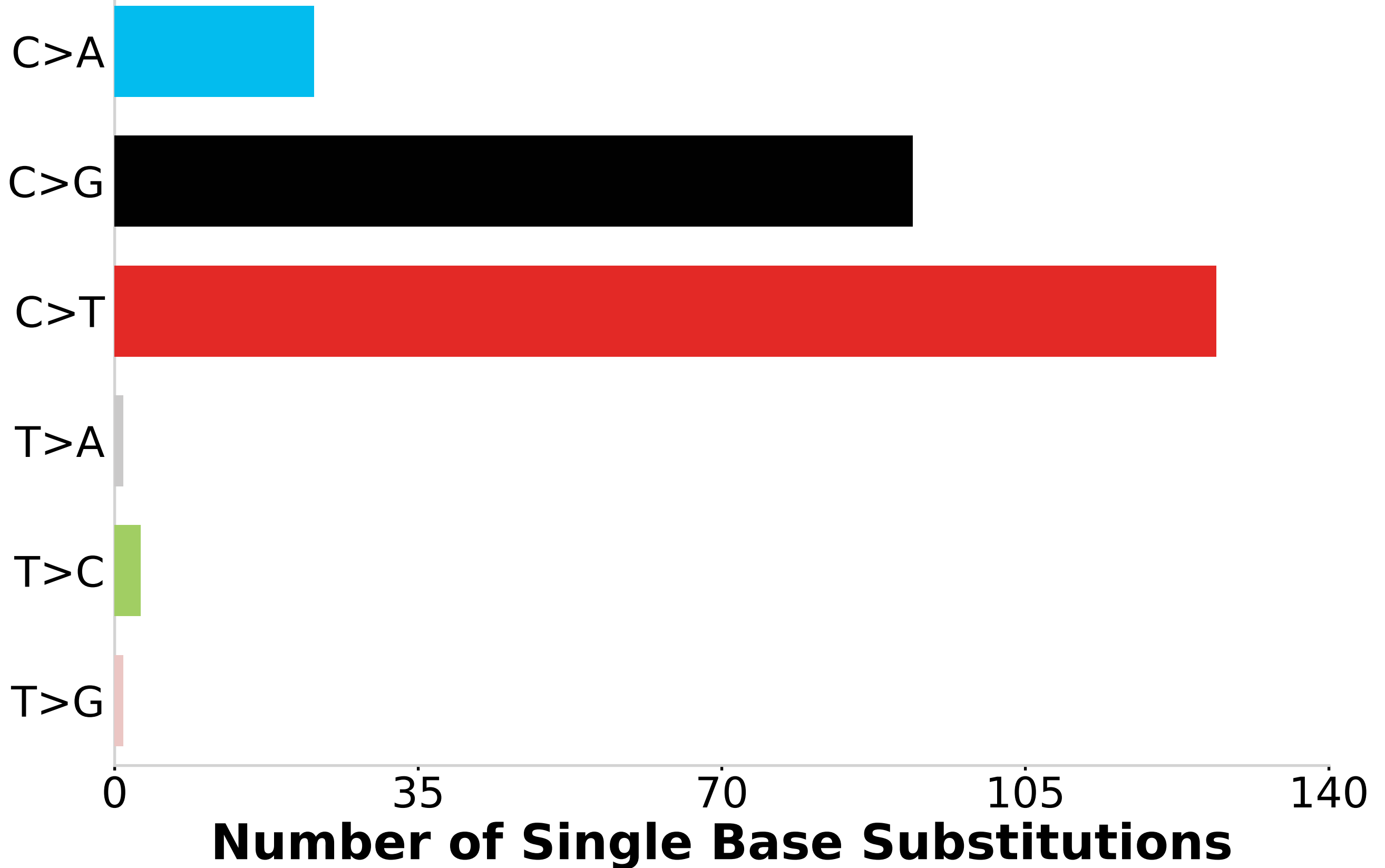
TCGA-G2-A2EK-01A-22D-A18F-08: 13 subs



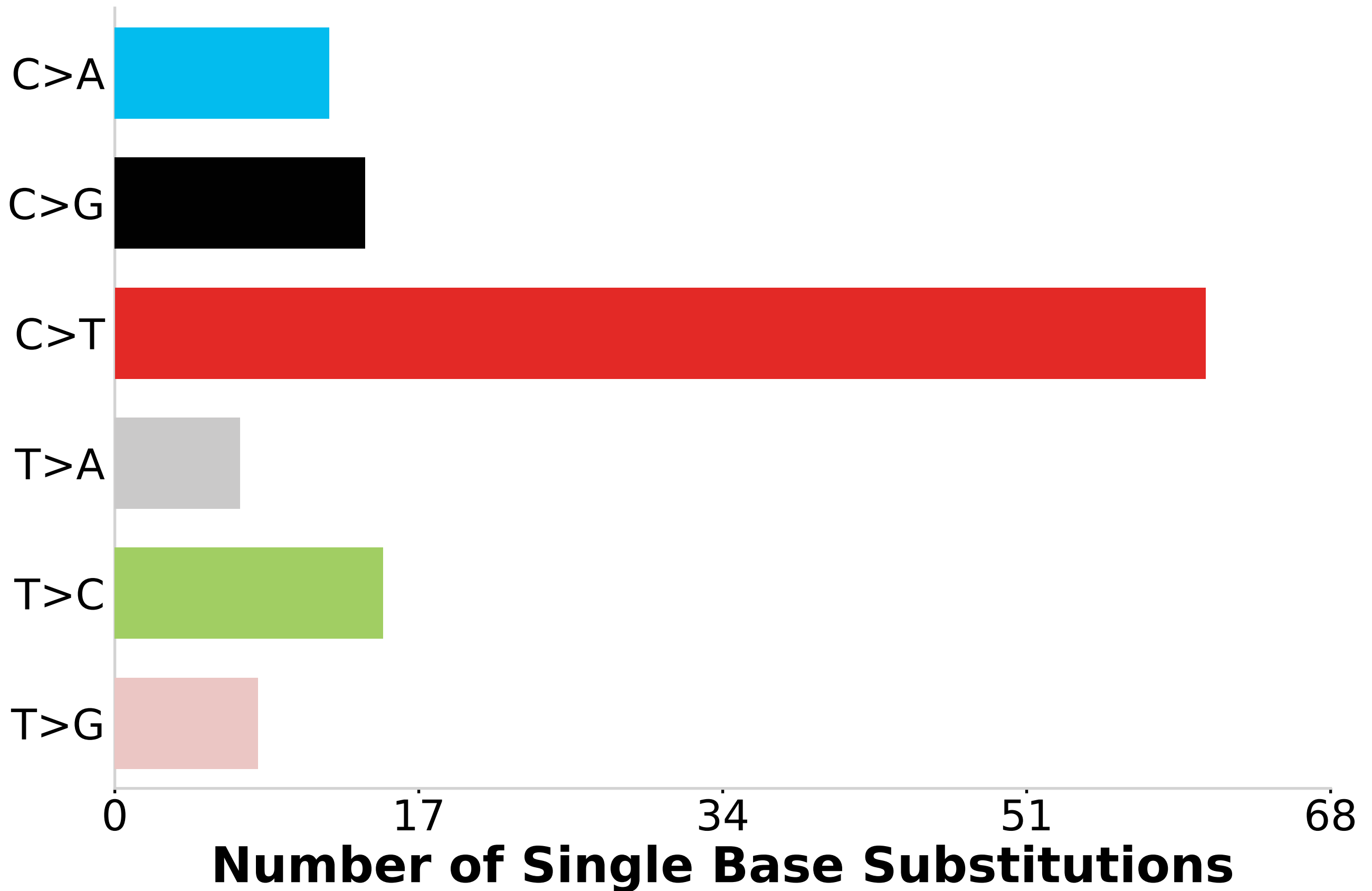
TCGA-G2-A2EL-01A-12D-A18F-08: 52 subs



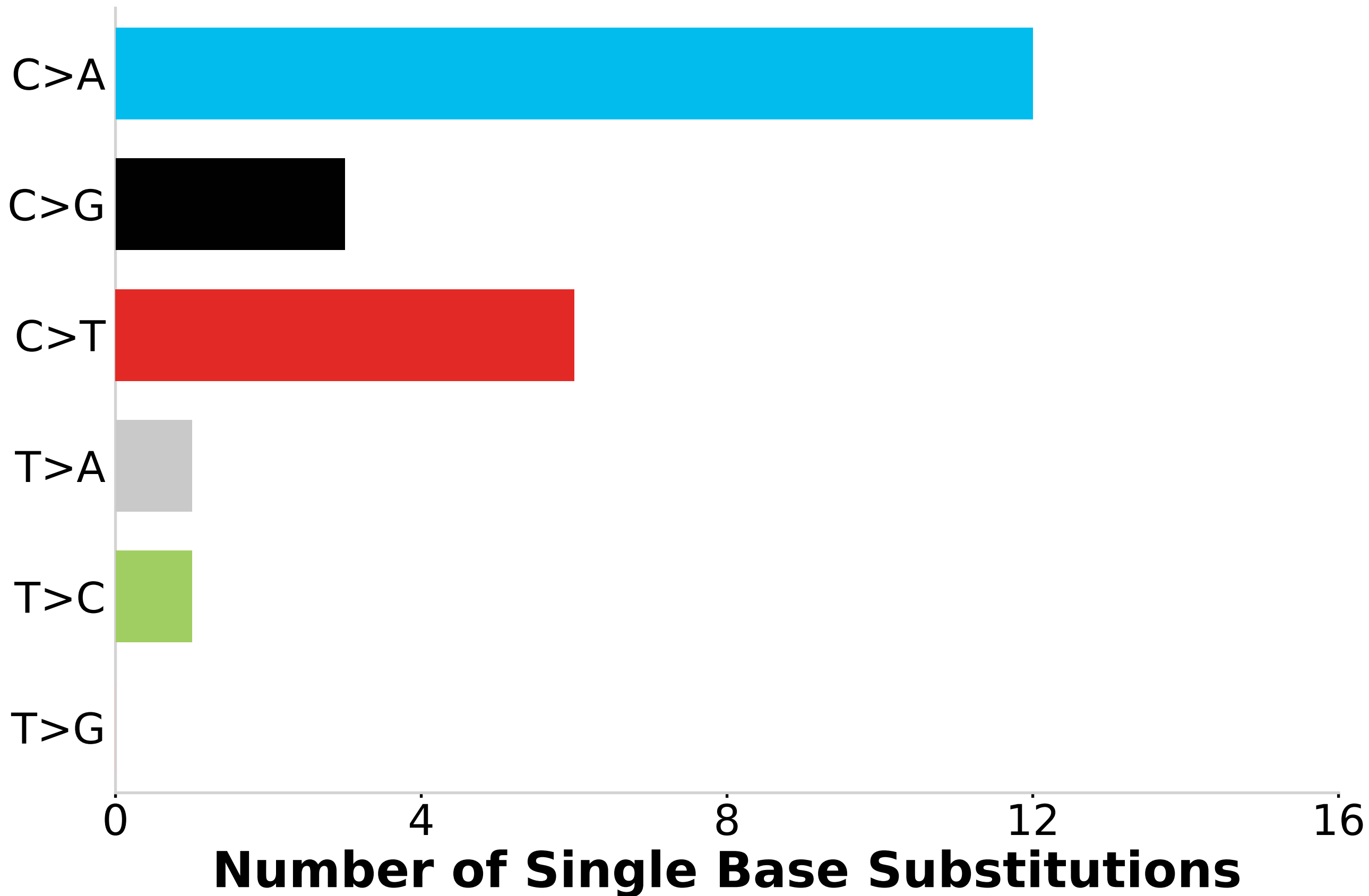
TCGA-G2-A2EO-01A-11D-A17V-08: 247 sub



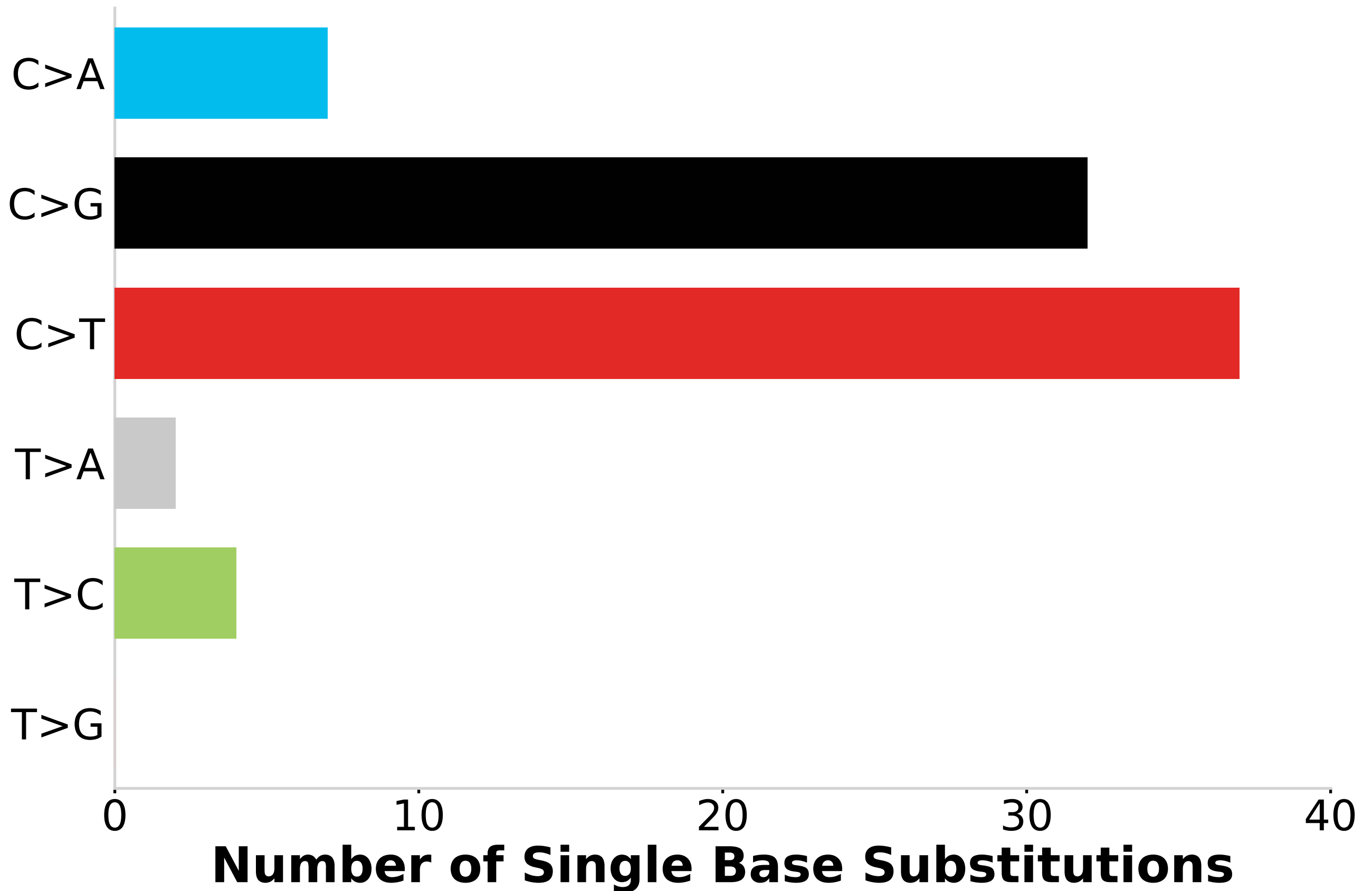
TCGA-G2-A2ES-01A-11D-A17V-08: 117 sub



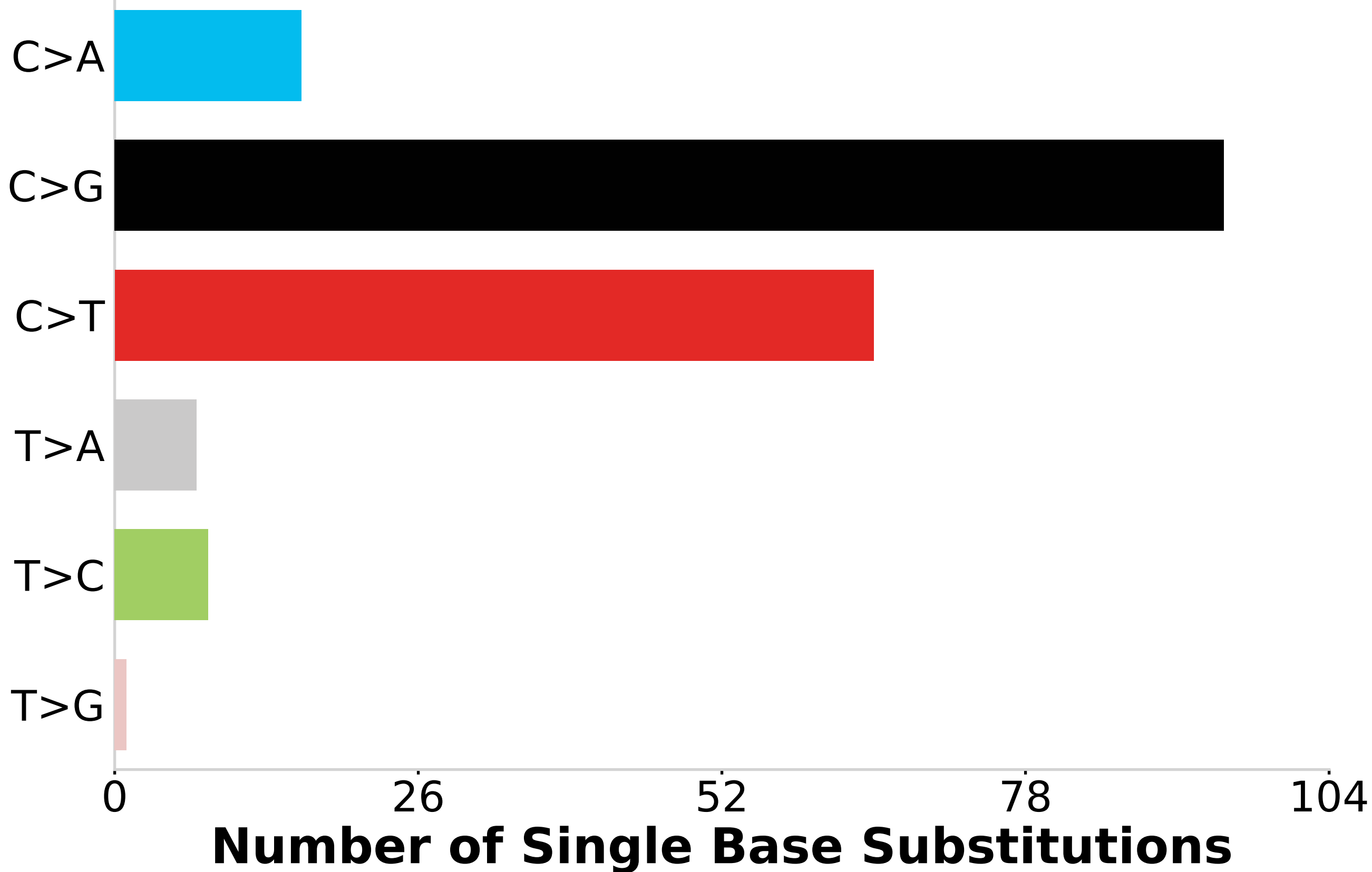
TCGA-G2-A3IB-01A-11D-A20D-08: 23 subs



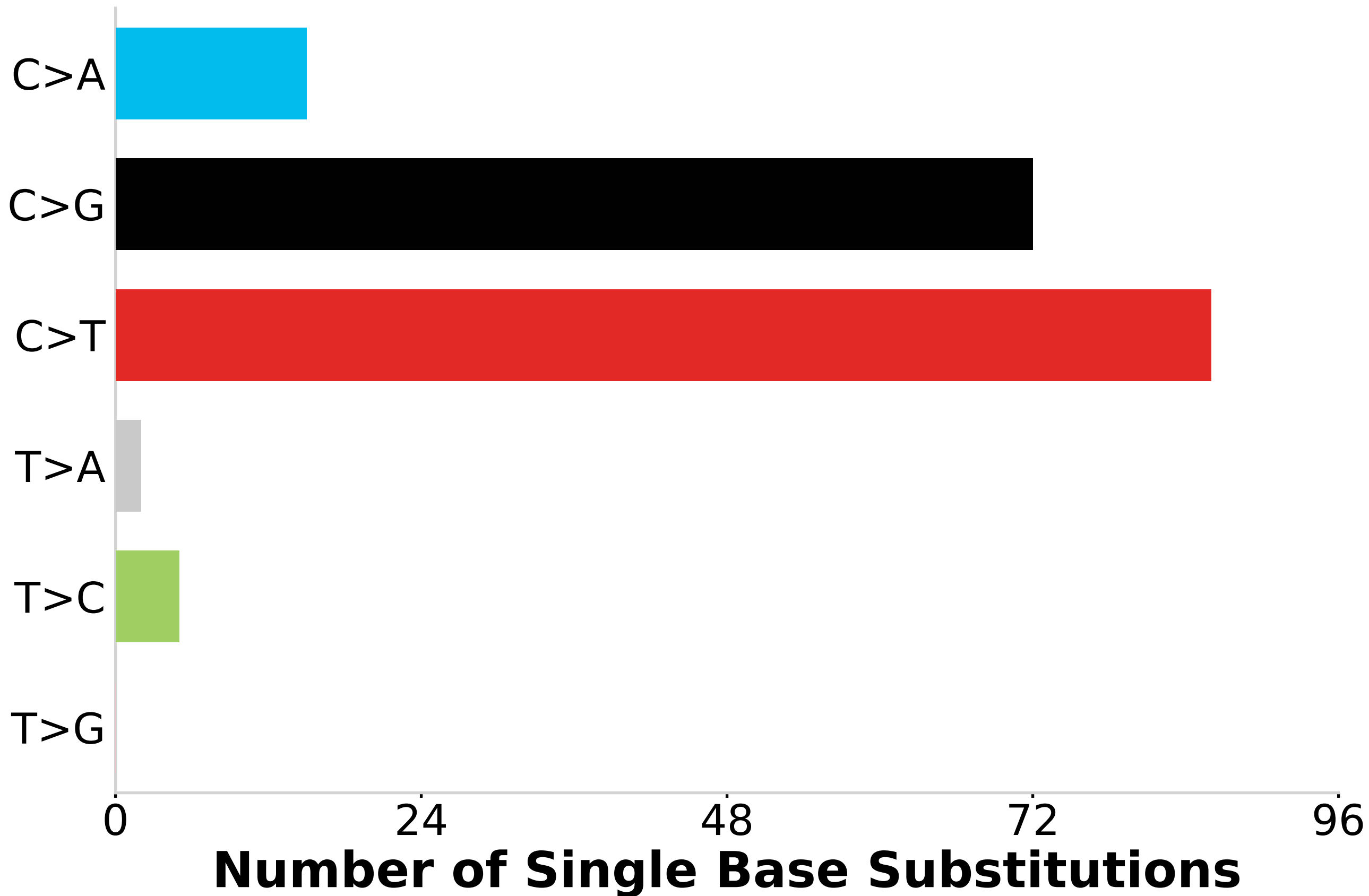
TCGA-G2-A3IE-01A-11D-A20D-08: 82 subs



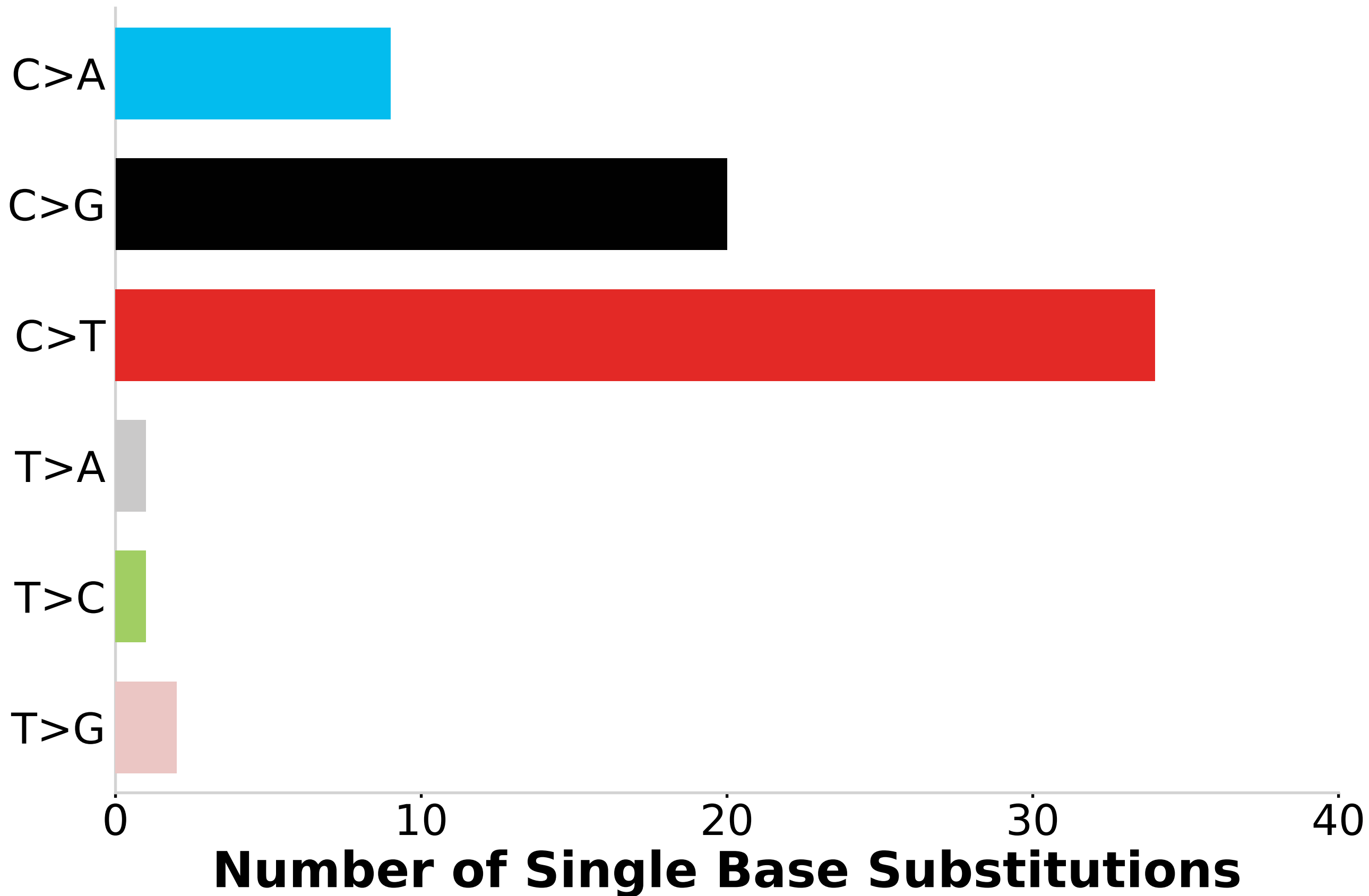
TCGA-G2-A3VY-01A-11D-A22Z-08: 192 sub



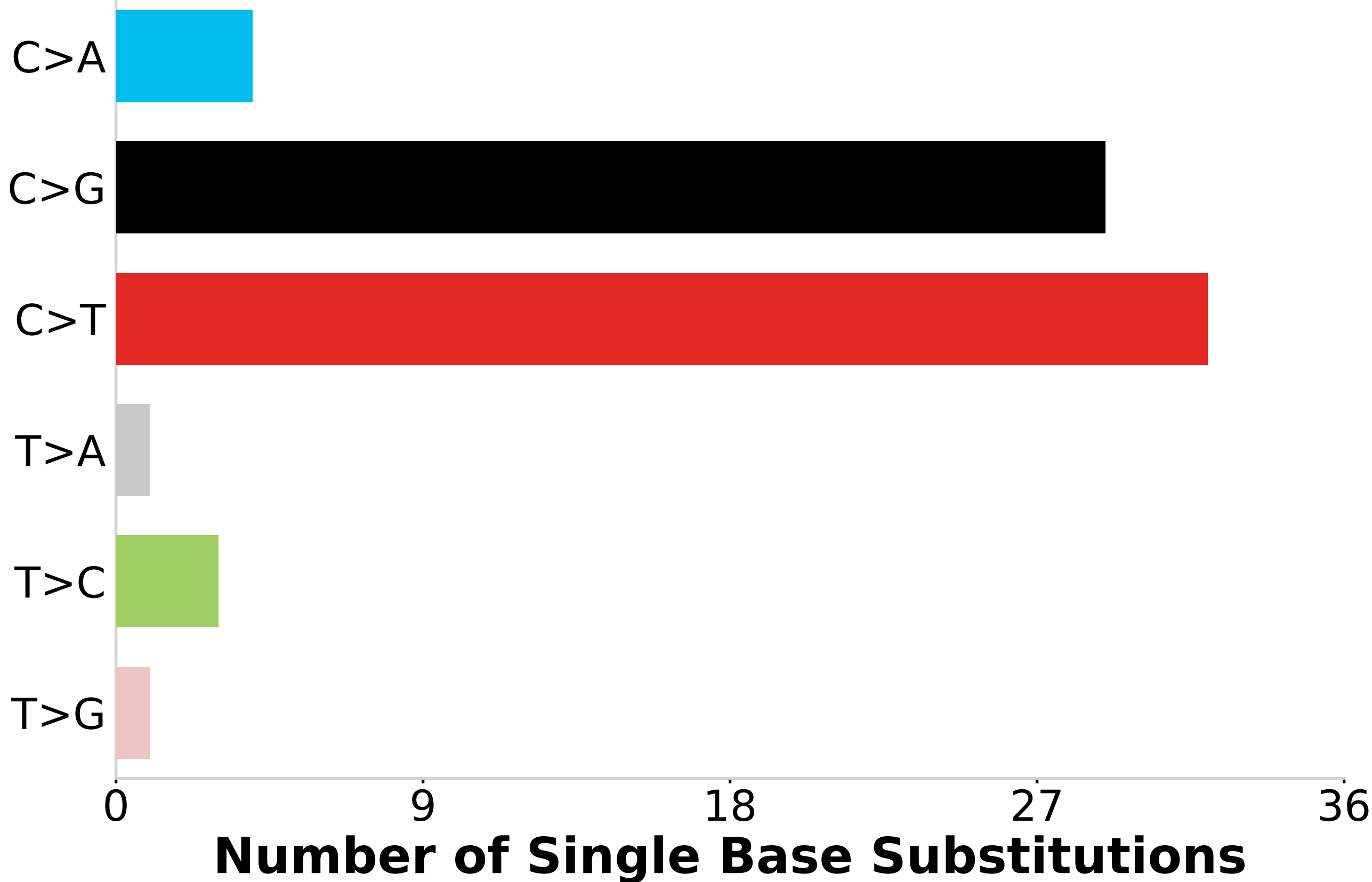
TCGA-G2-AA3B-01A-11D-A391-08: 180 sub



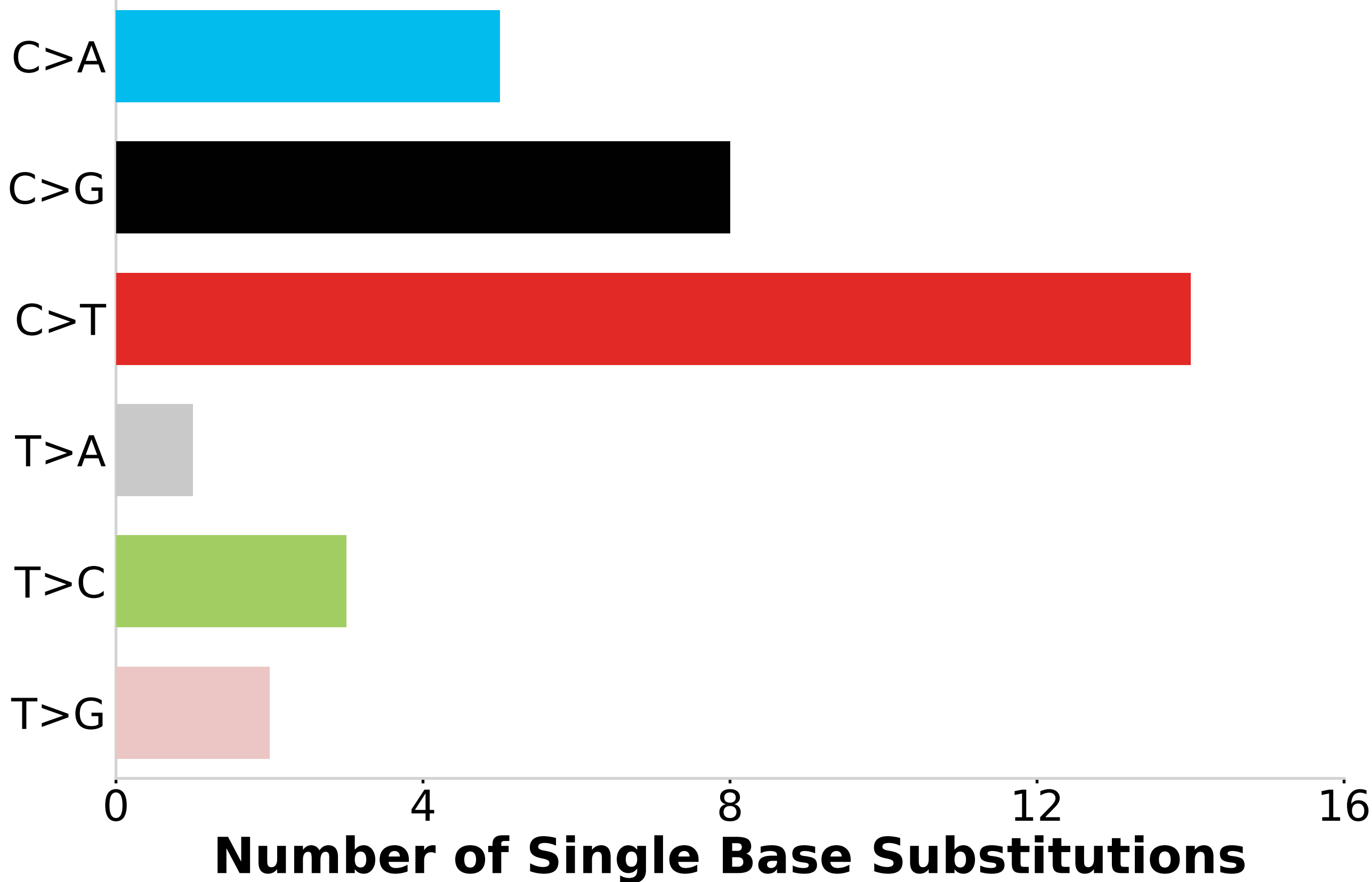
TCGA-G2-AA3C-01A-21D-A391-08: 67 subs



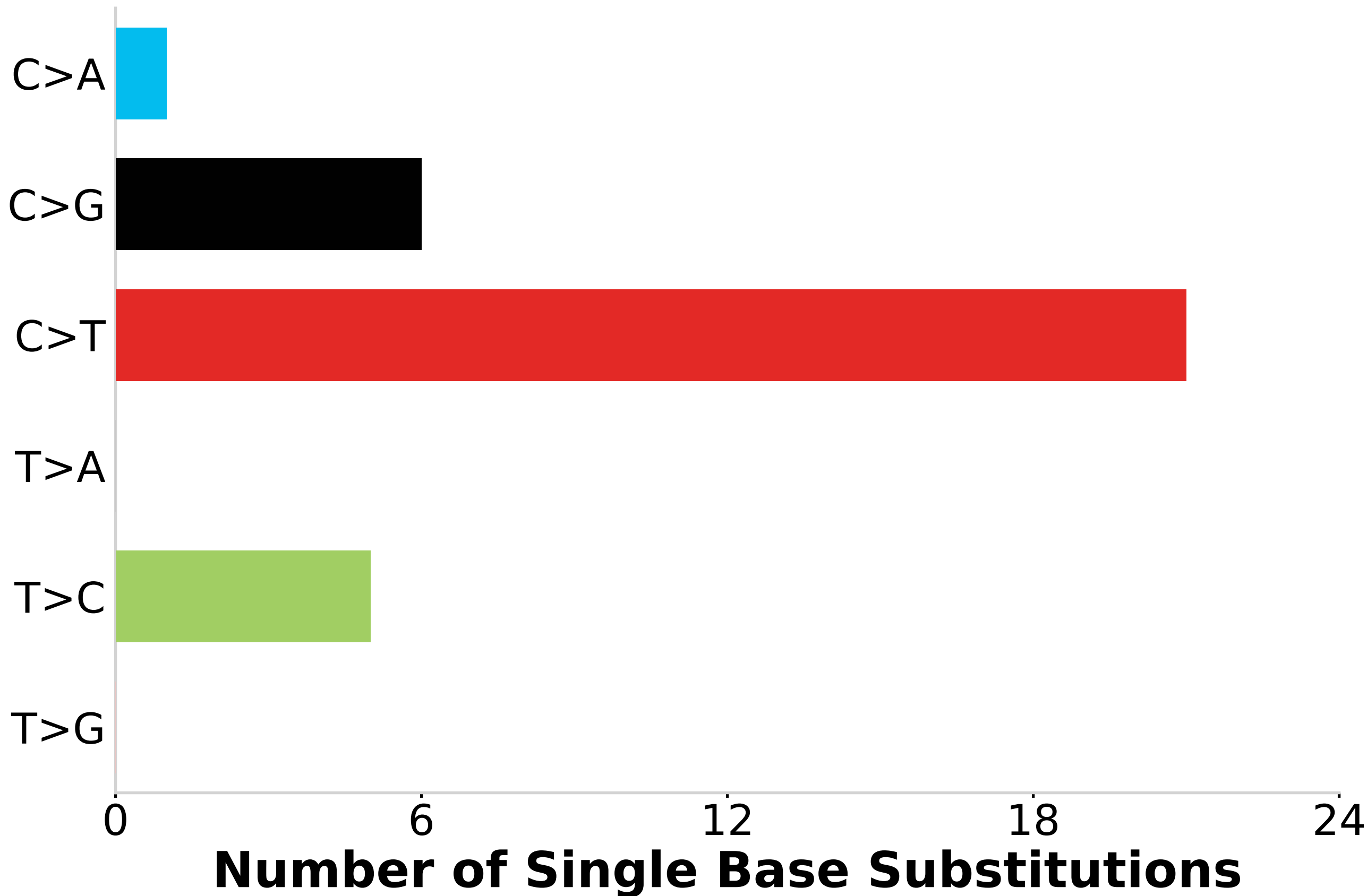
TCGA-G2-AA3D-01A-11D-A391-08: 70 subs



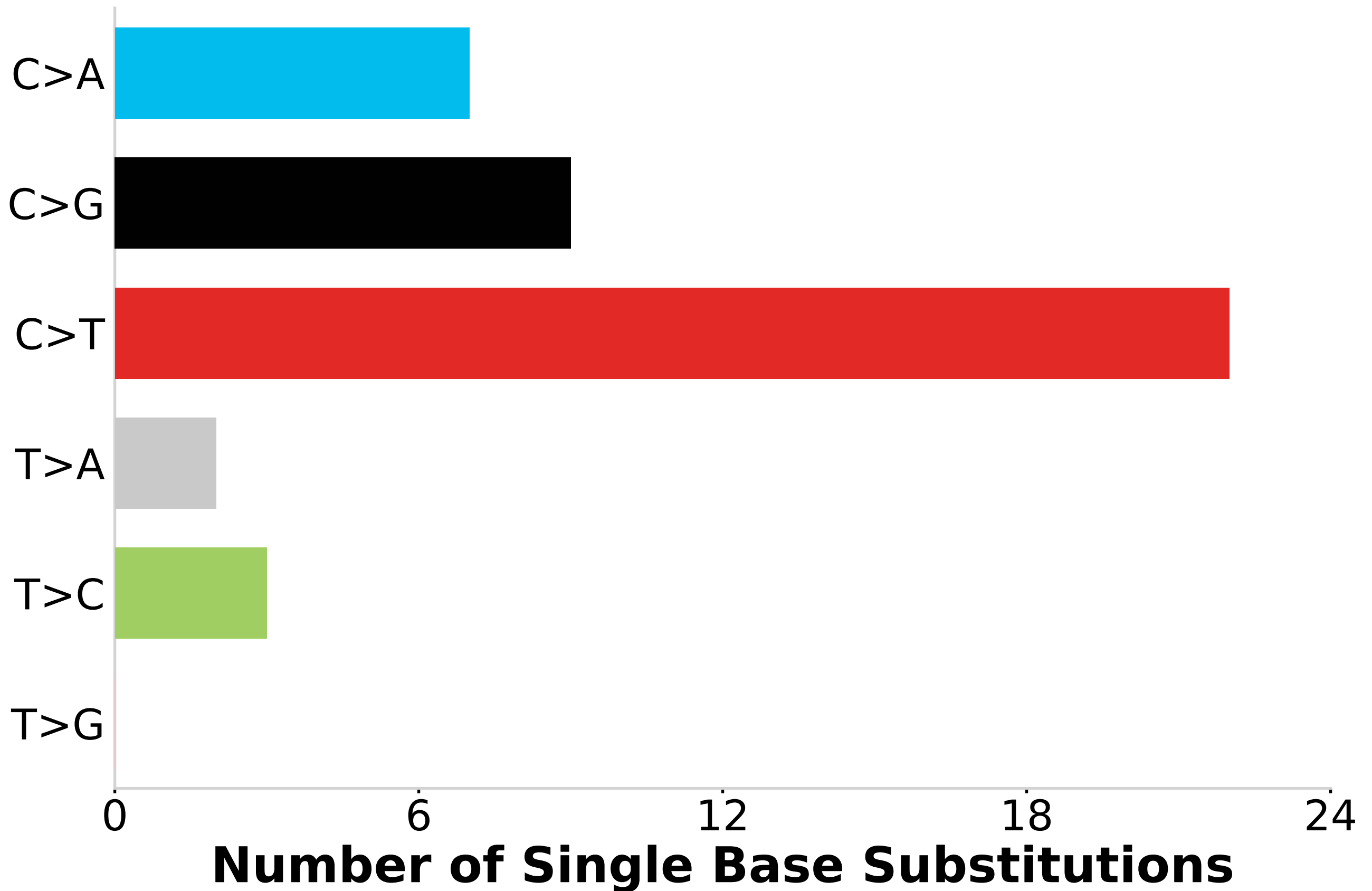
TCGA-G2-AA3F-01A-12D-A42E-08: 33 subs



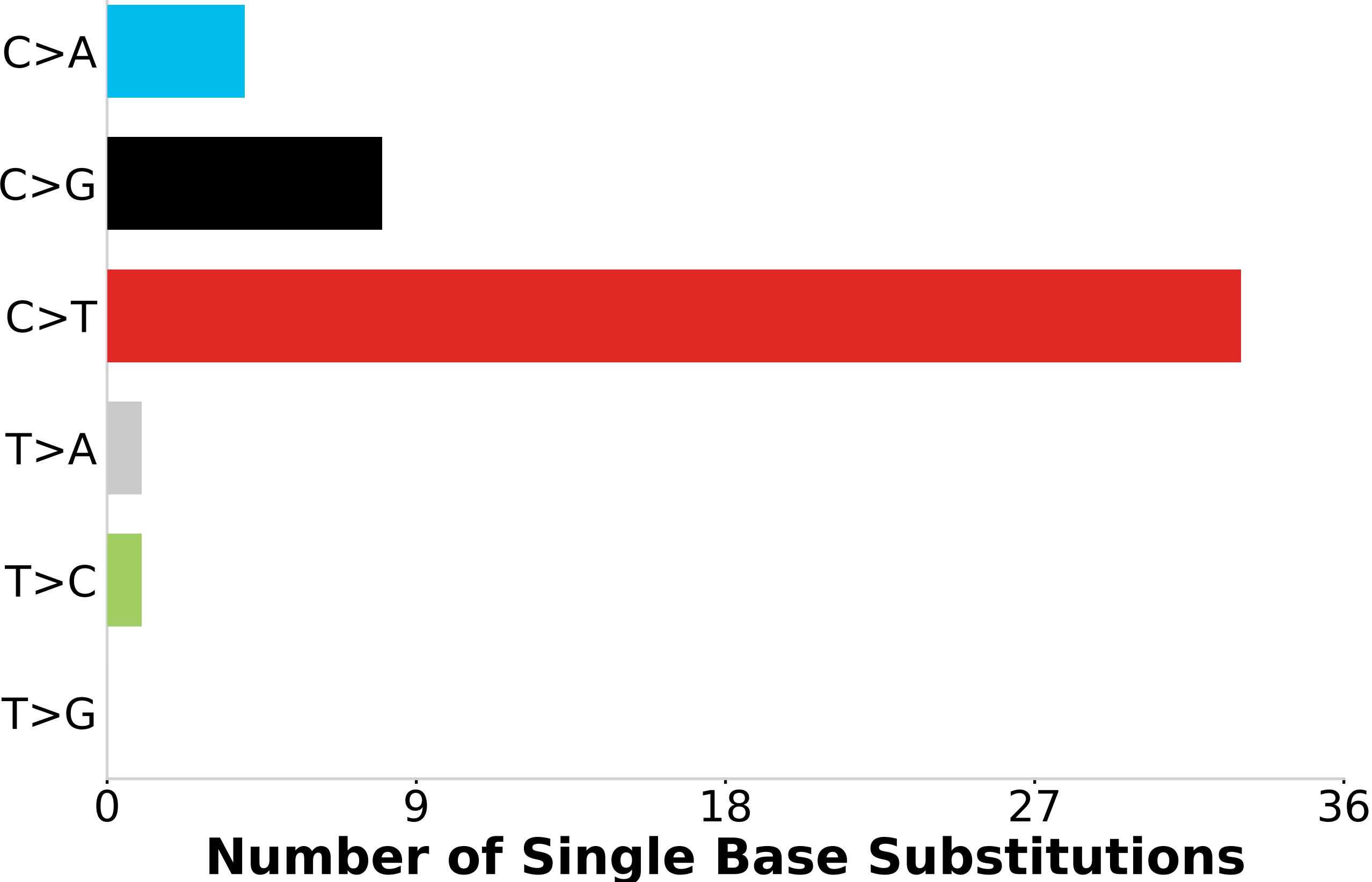
TCGA-GC-A3BM-01A-11D-A22Z-08: 33 subs



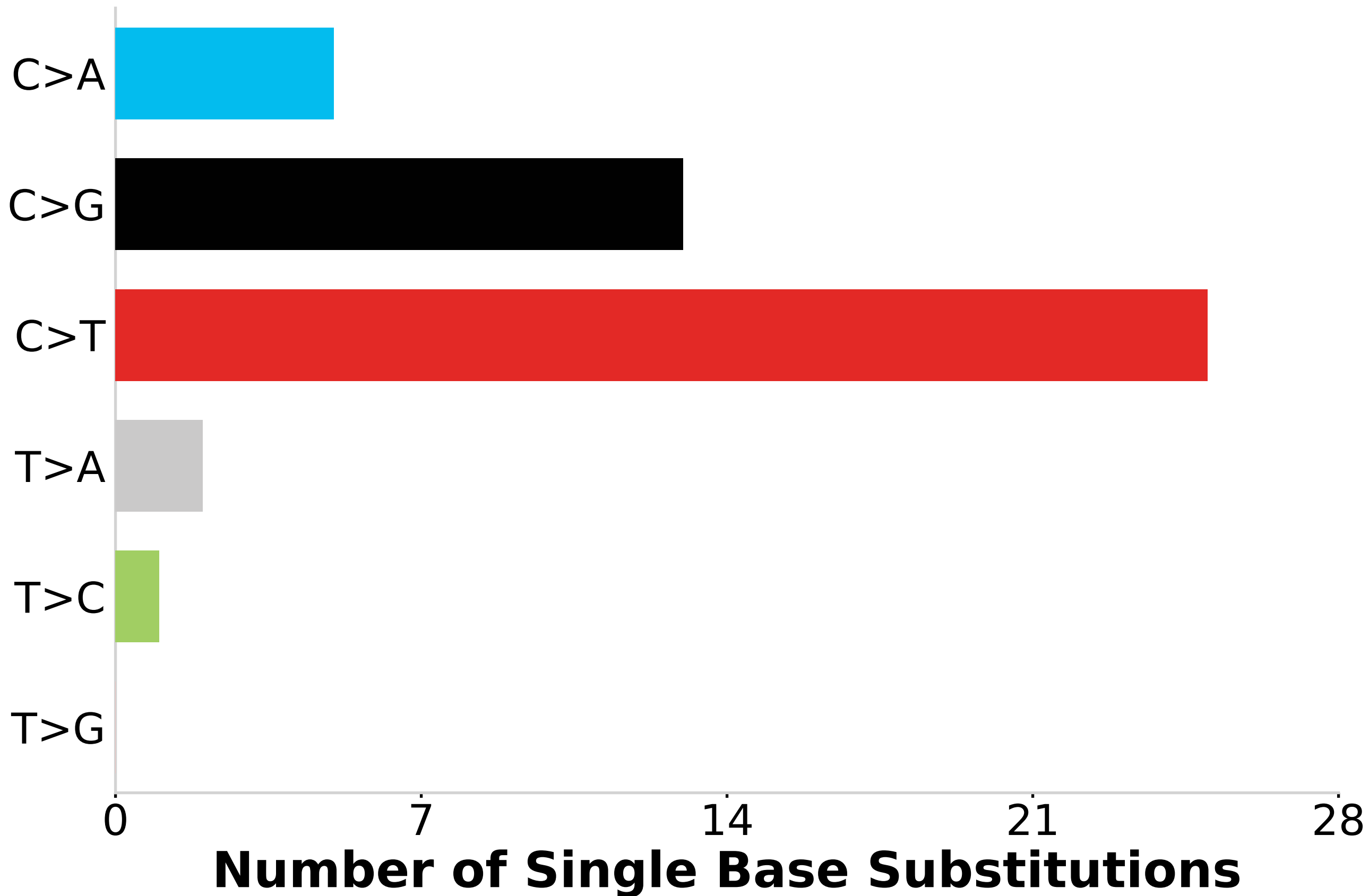
TCGA-GC-A3I6-01A-11D-A20D-08: 43 subs



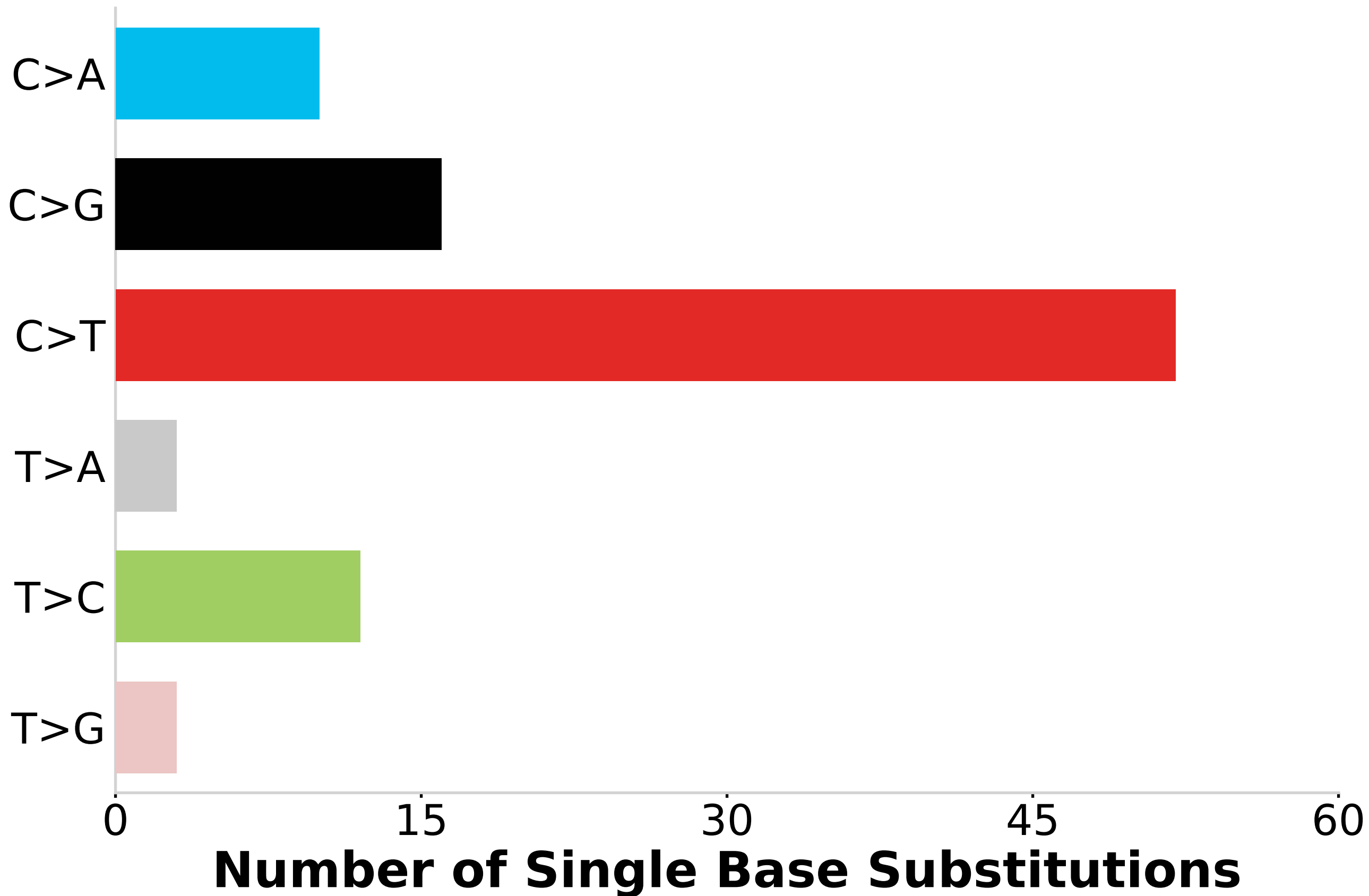
TCGA-GC-A300-01A-11D-A22Z-08: 47 subs



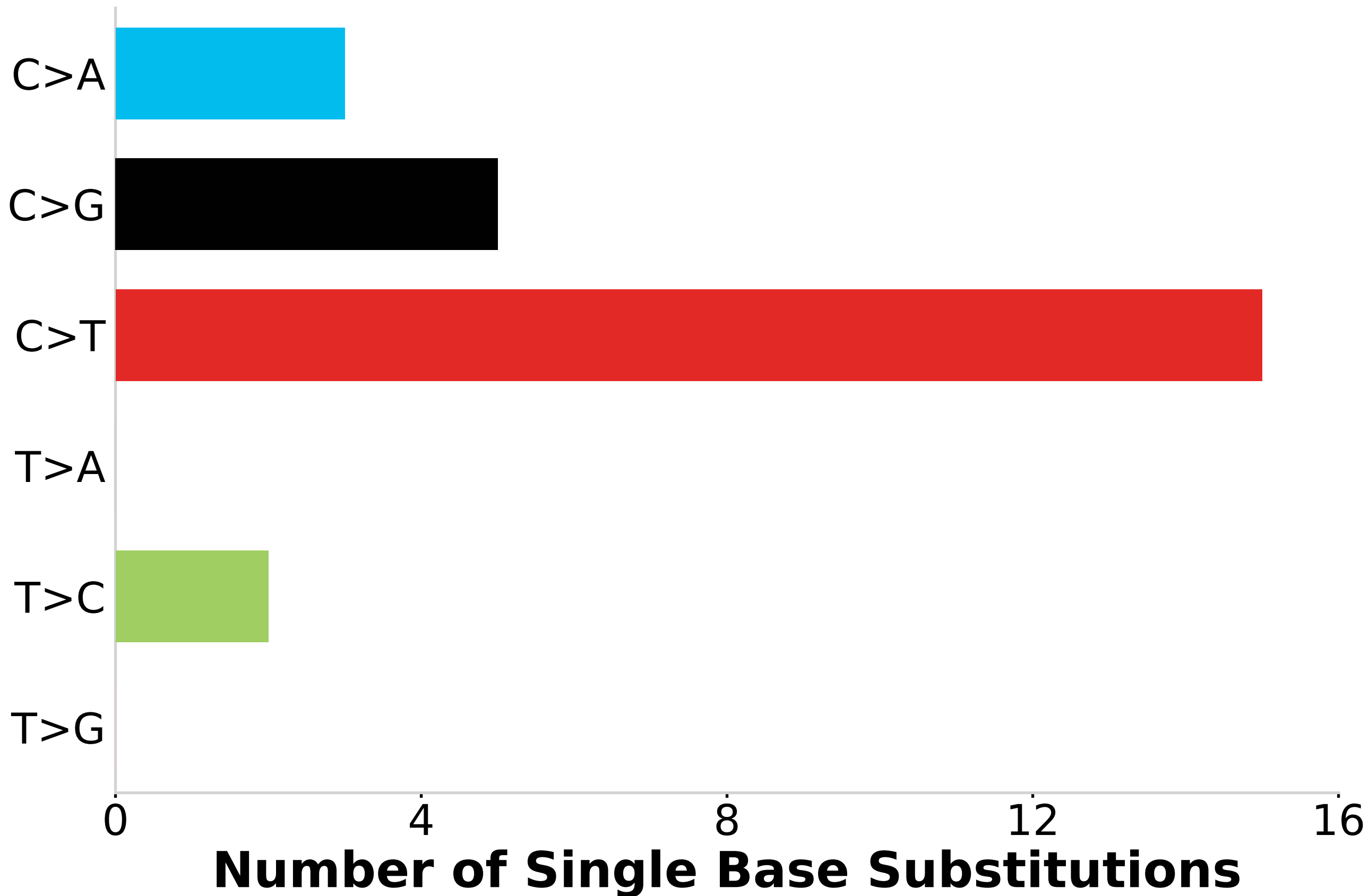
TCGA-GC-A3RB-01A-12D-A21Z-08: 46 subs



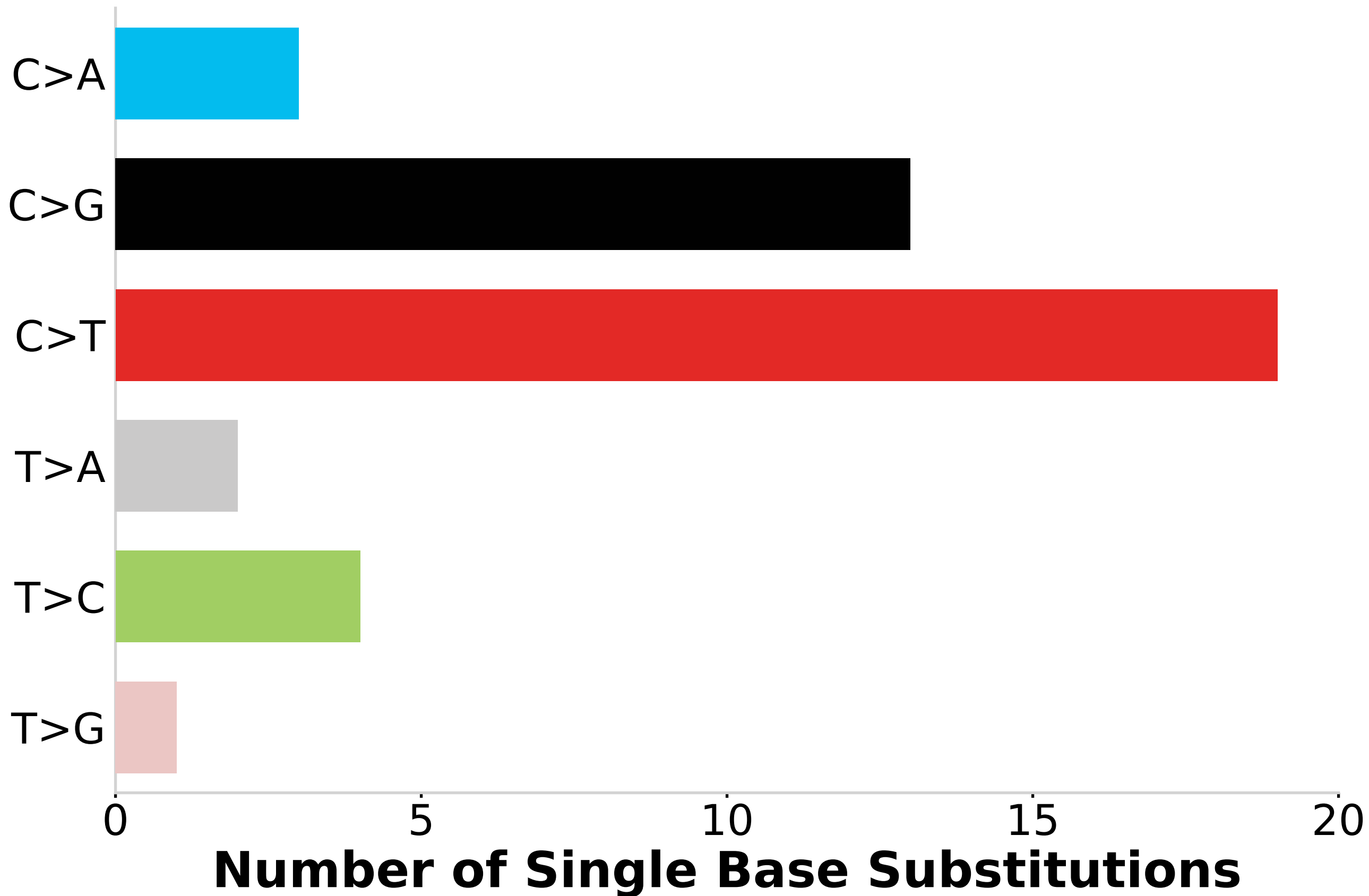
TCGA-GC-A3RC-01A-11D-A22Z-08: 96 subs



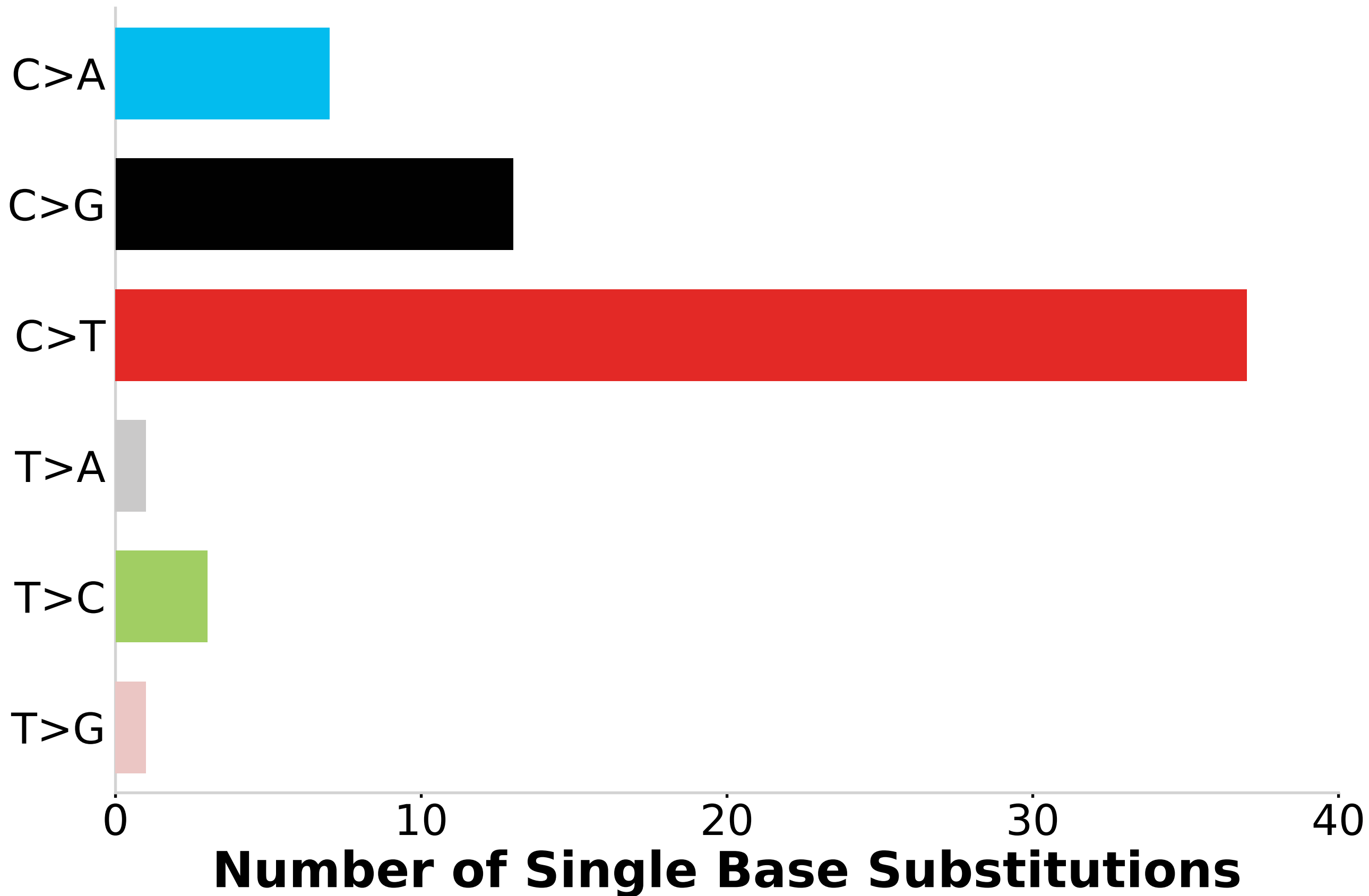
TCGA-GC-A3RD-01A-12D-A22Z-08: 25 subs



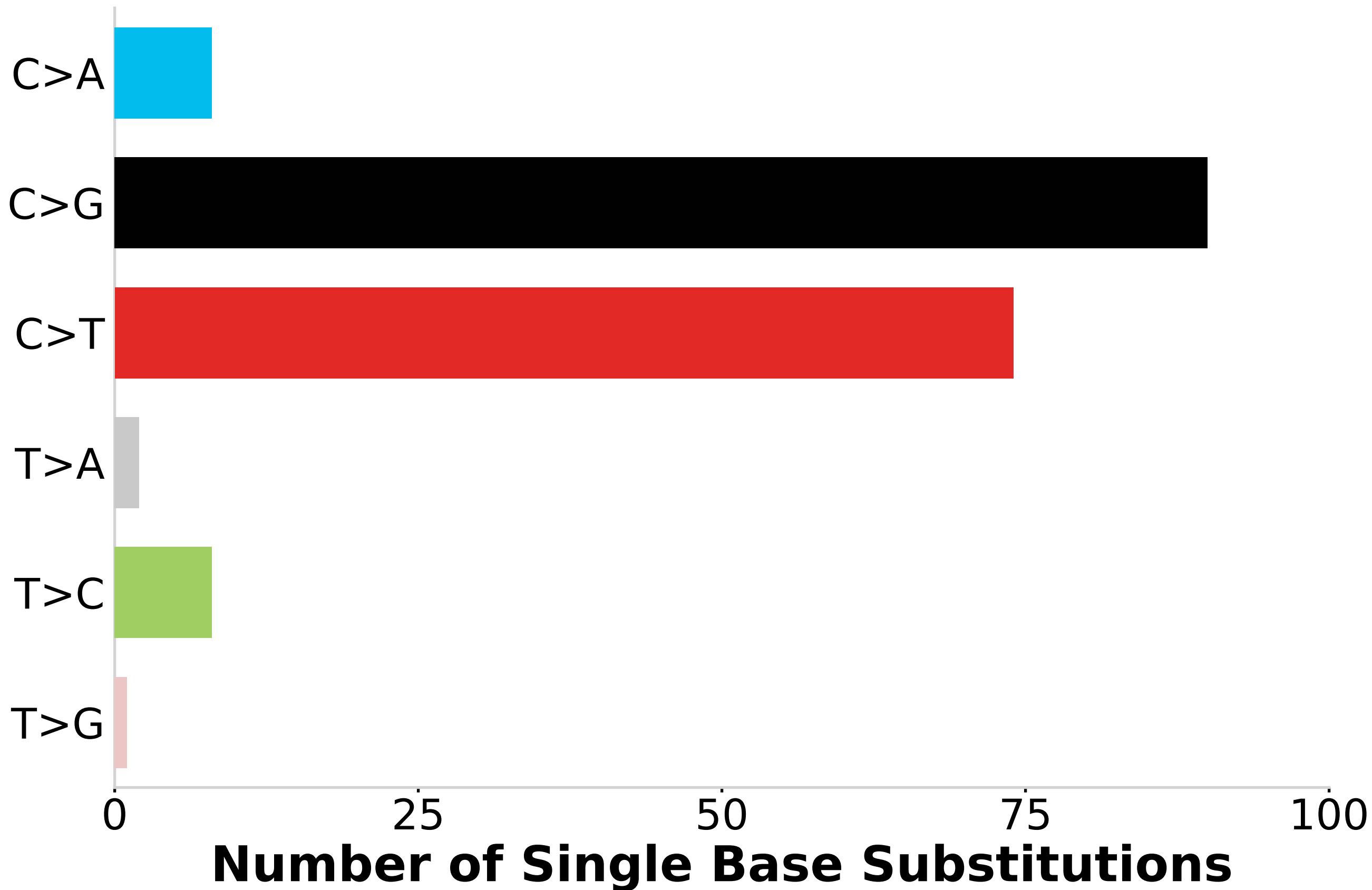
TCGA-GC-A3WC-01A-31D-A22Z-08: 42 sub



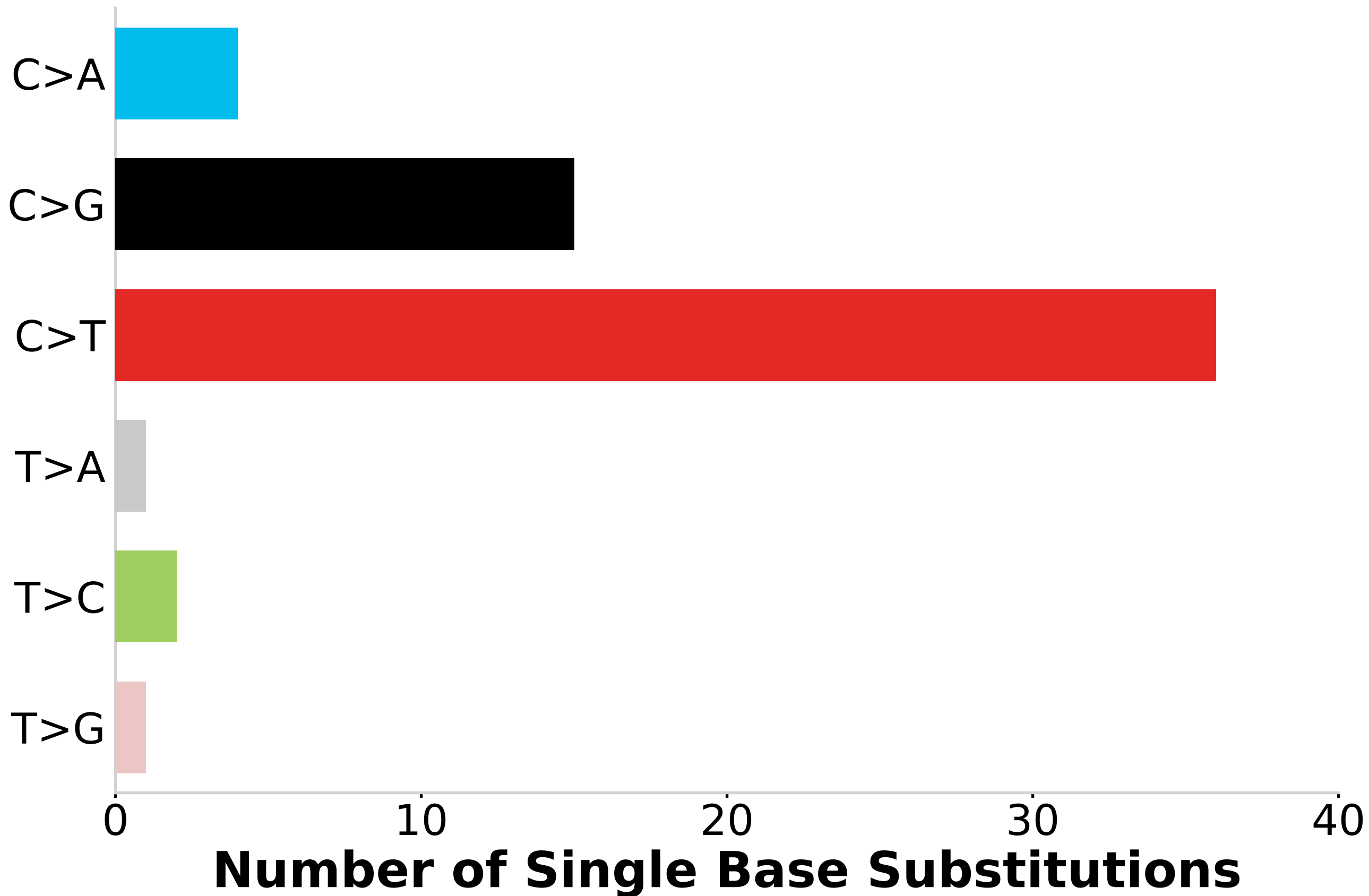
TCGA-GC-A3YS-01A-11D-A23M-08: 62 subs



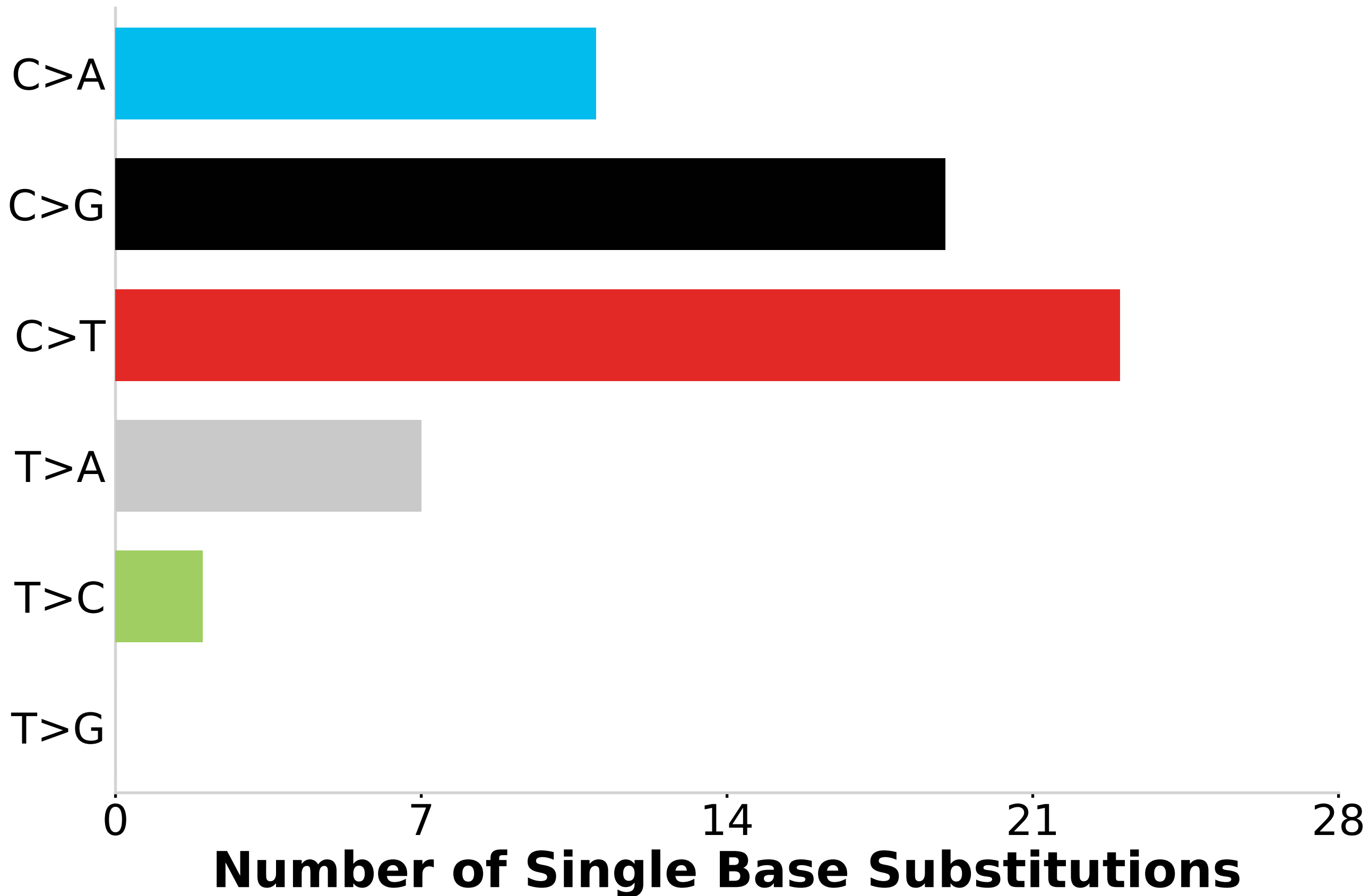
TCGA-GC-A4ZW-01A-11D-A26M-08: 183 su



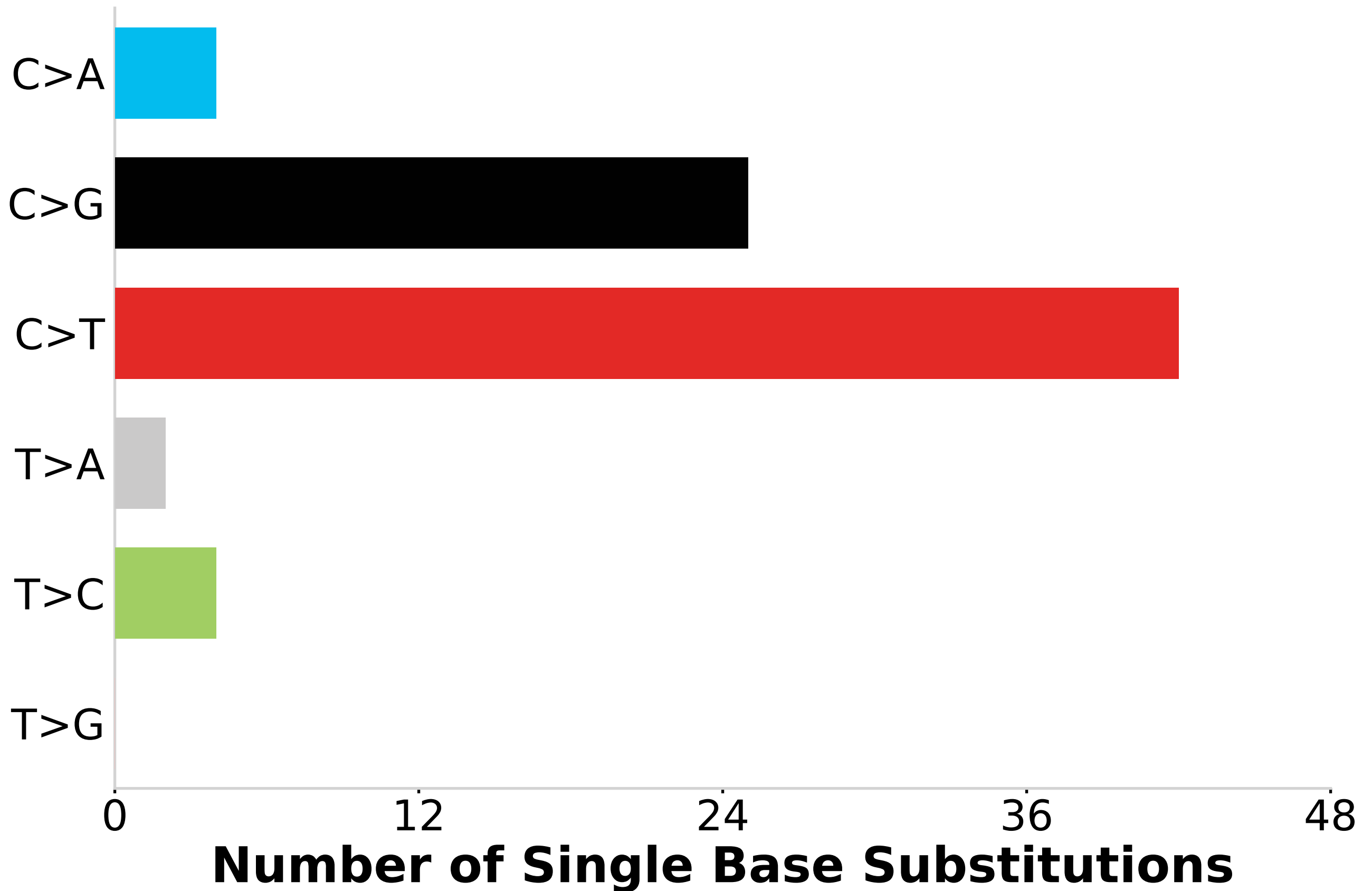
TCGA-GC-A6I1-01A-12D-A31L-08: 59 subs



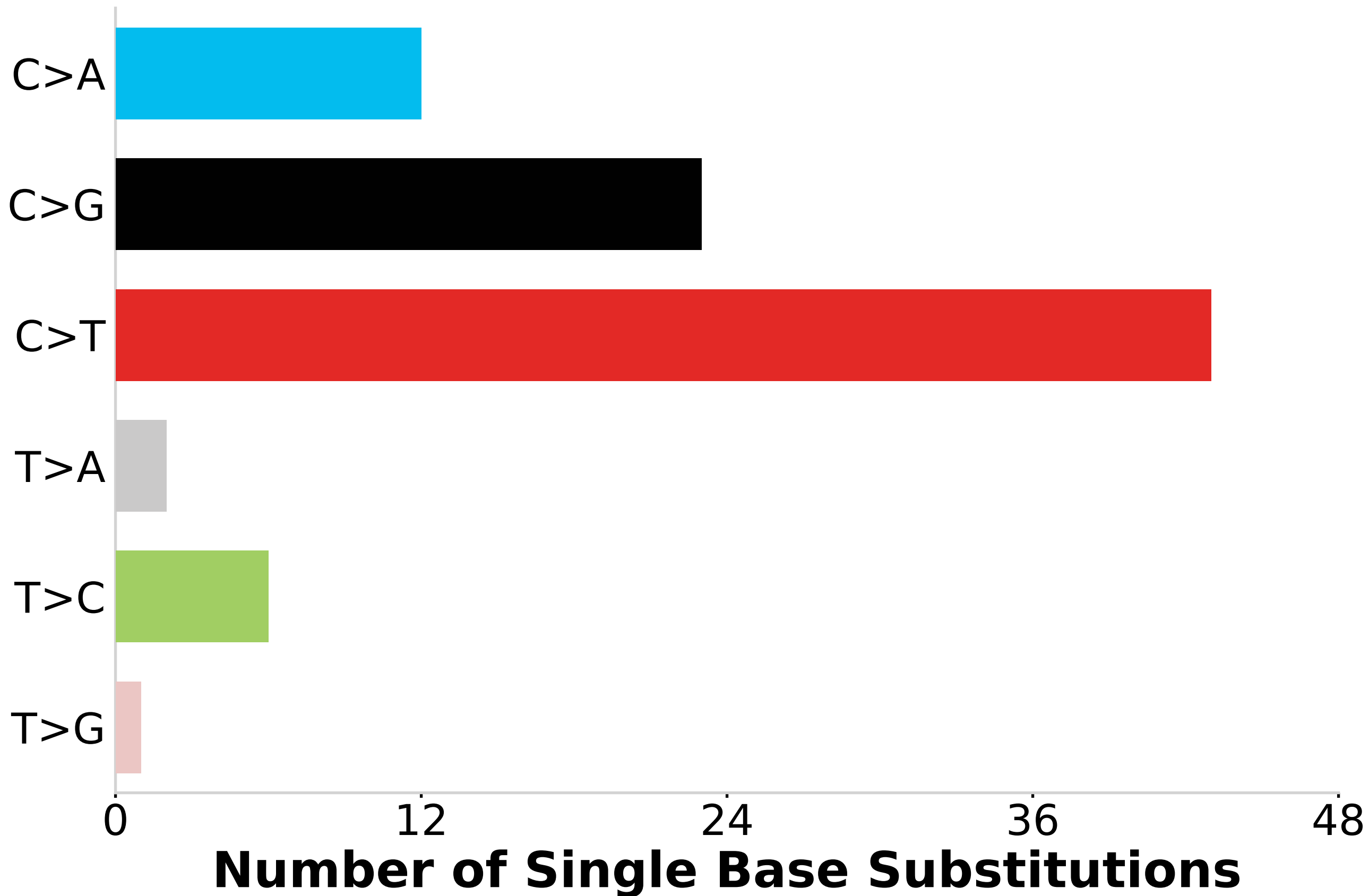
TCGA-GC-A6I3-01A-11D-A31L-08: 62 subs



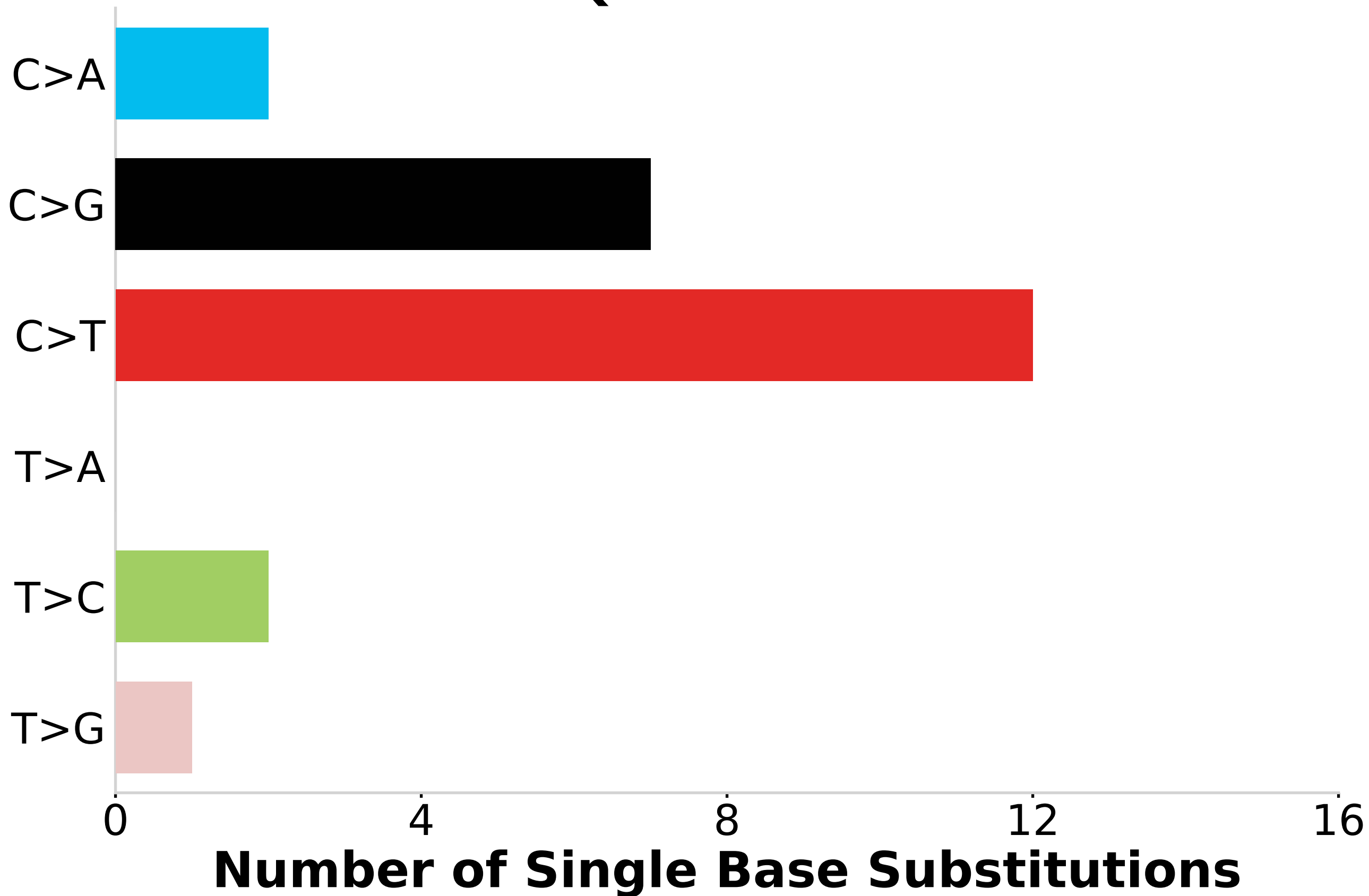
TCGA-GD-A2C5-01A-12D-A17V-08: 77 subs



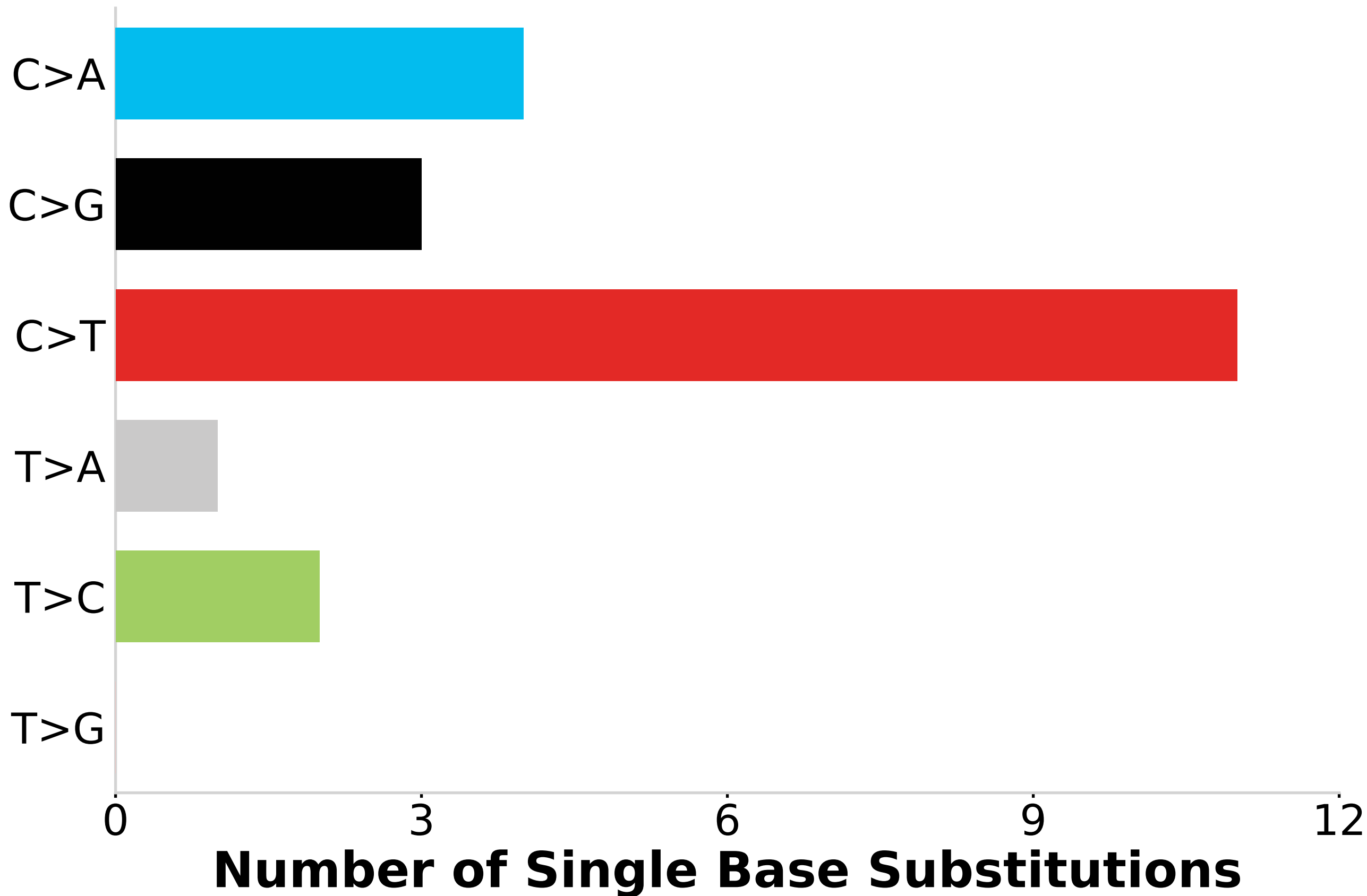
TCGA-GD-A30P-01A-21D-A21Z-08: 87 subs



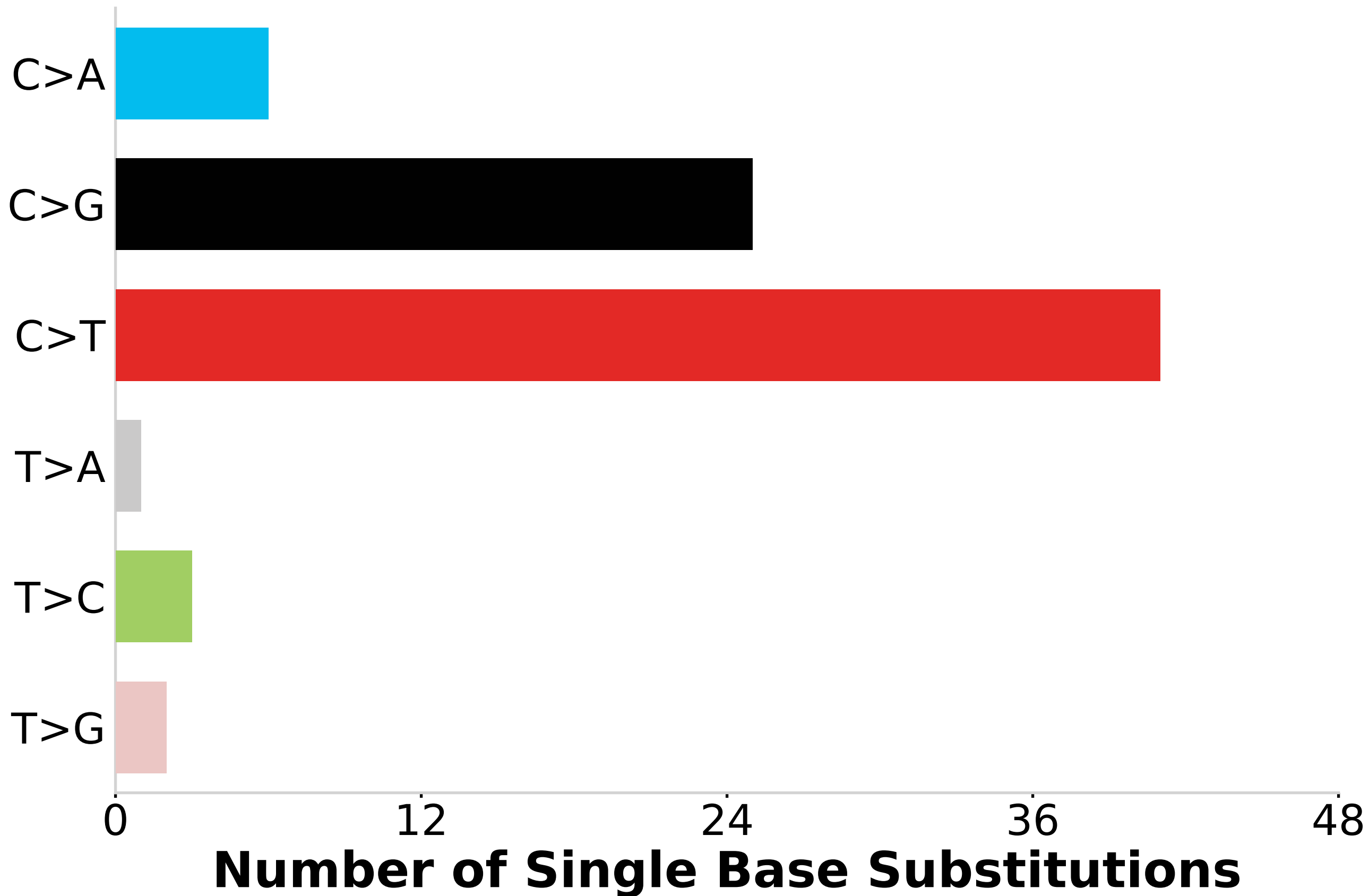
TCGA-GD-A30Q-01A-32D-A21Z-08: 24 sub



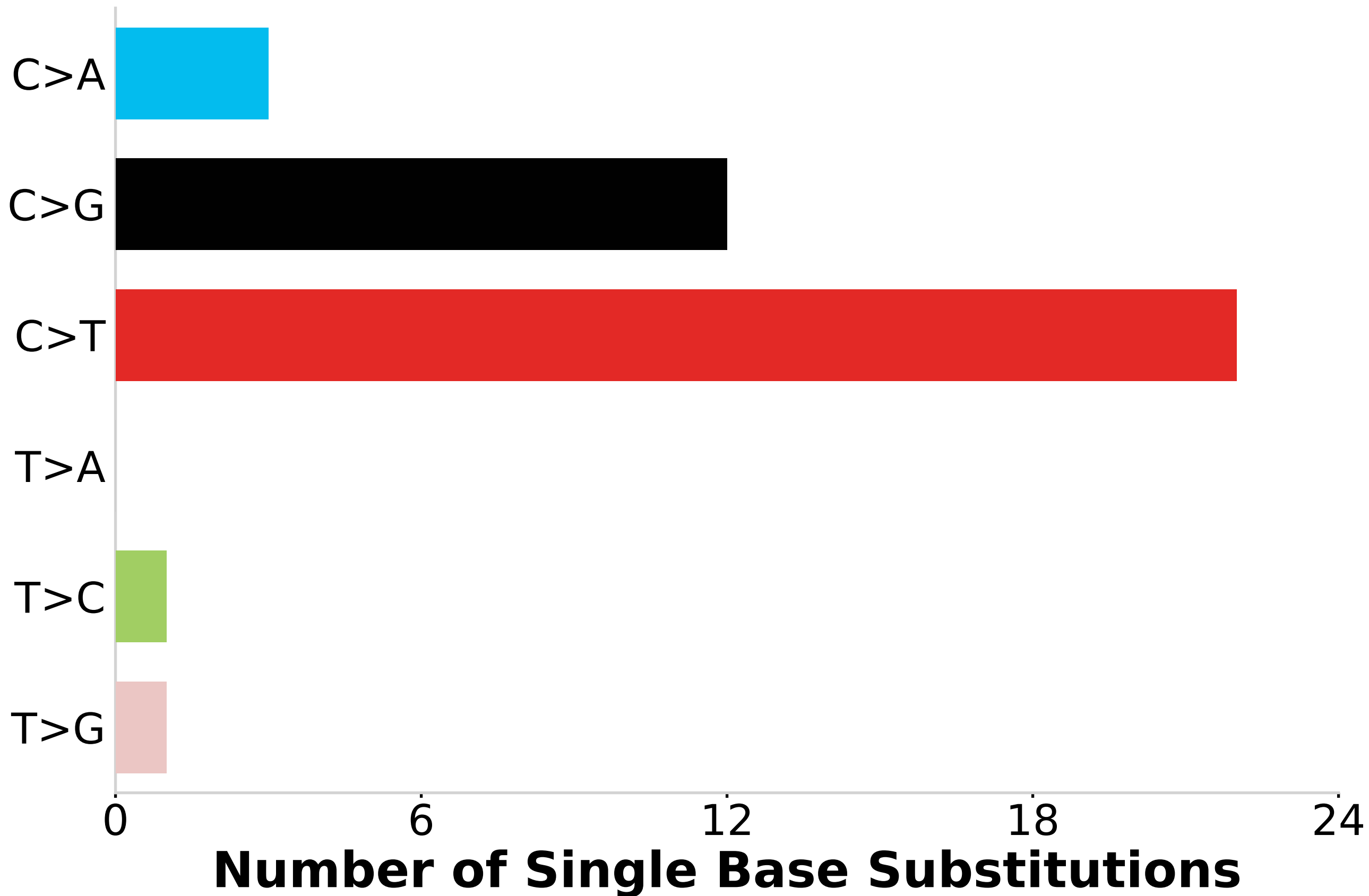
TCGA-GD-A3OS-01A-12D-A21Z-08: 21 subs



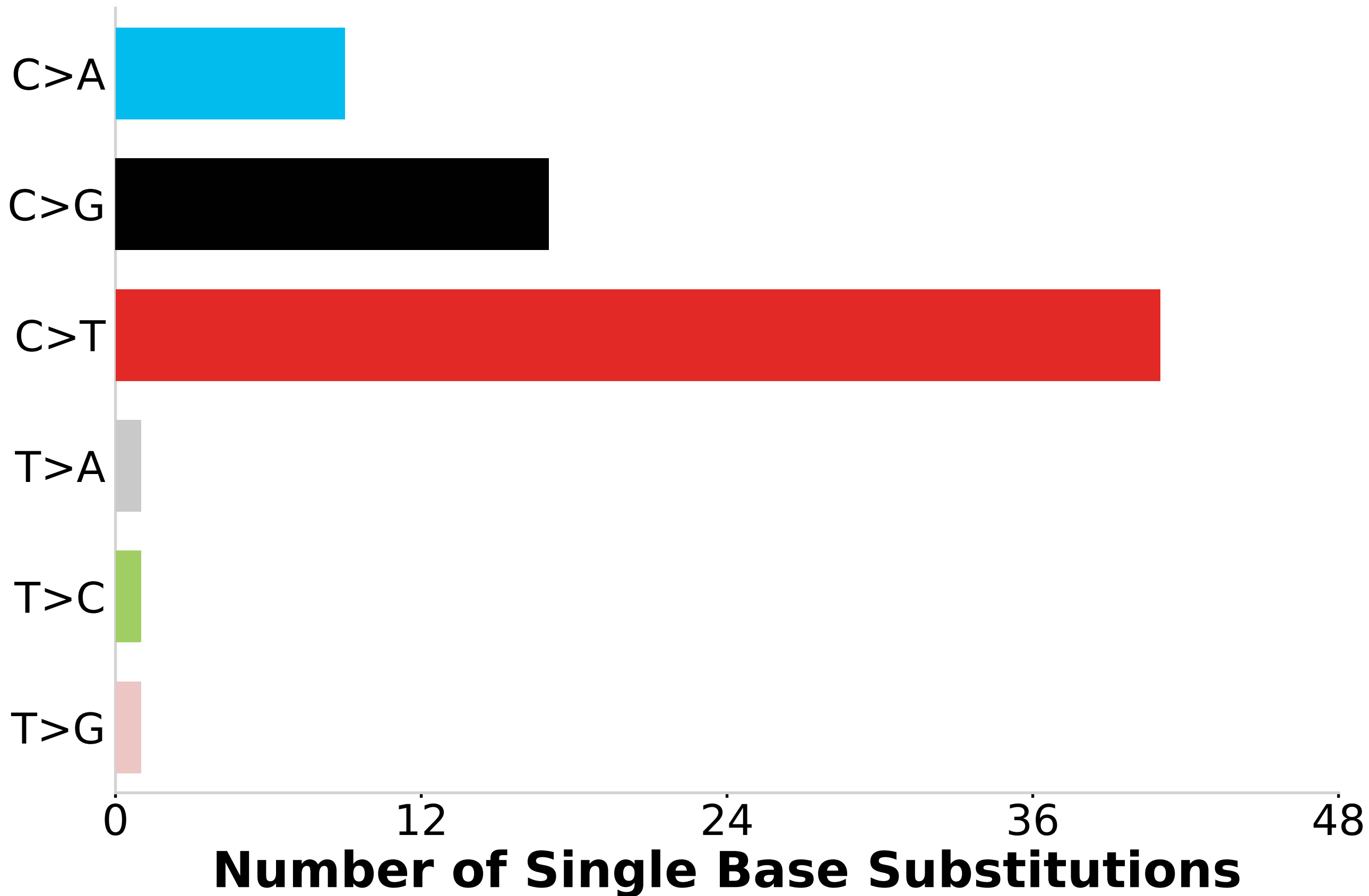
TCGA-GD-A6C6-01A-21D-A31L-08: 78 subs



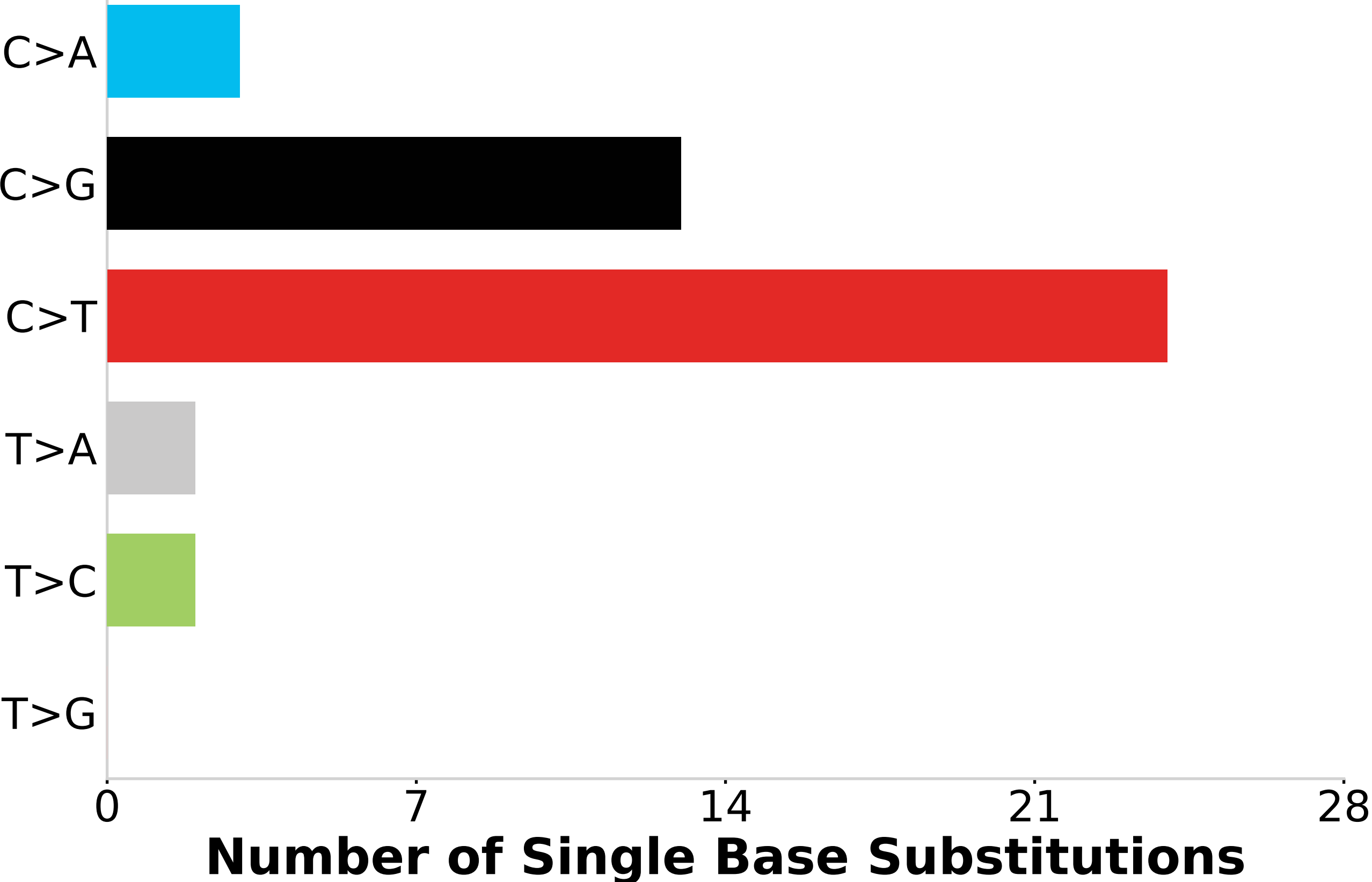
TCGA-GD-A76B-01A-11D-A32B-08: 39 subs



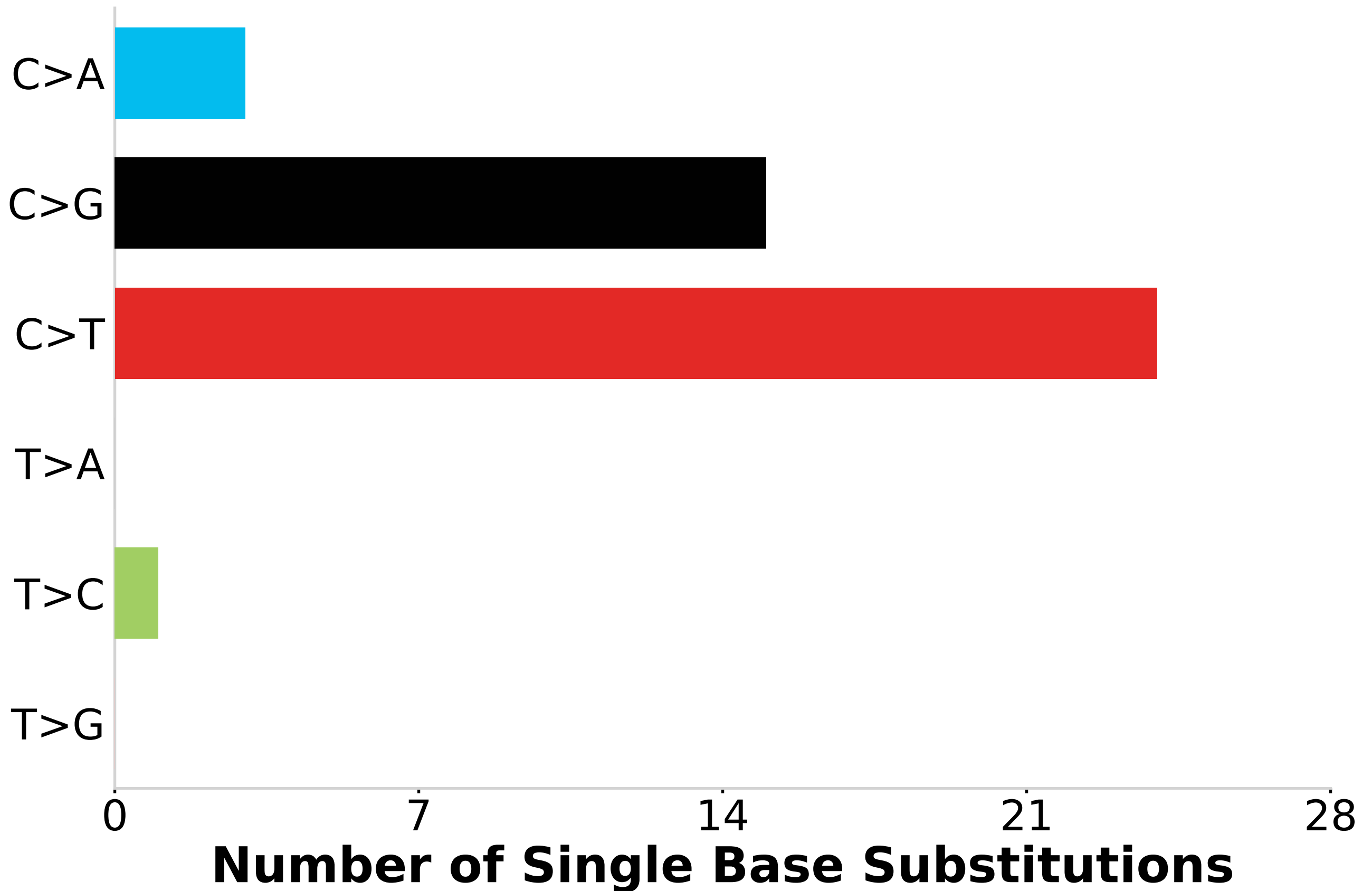
TCGA-GU-A42P-01A-11D-A23U-08: 70 subs



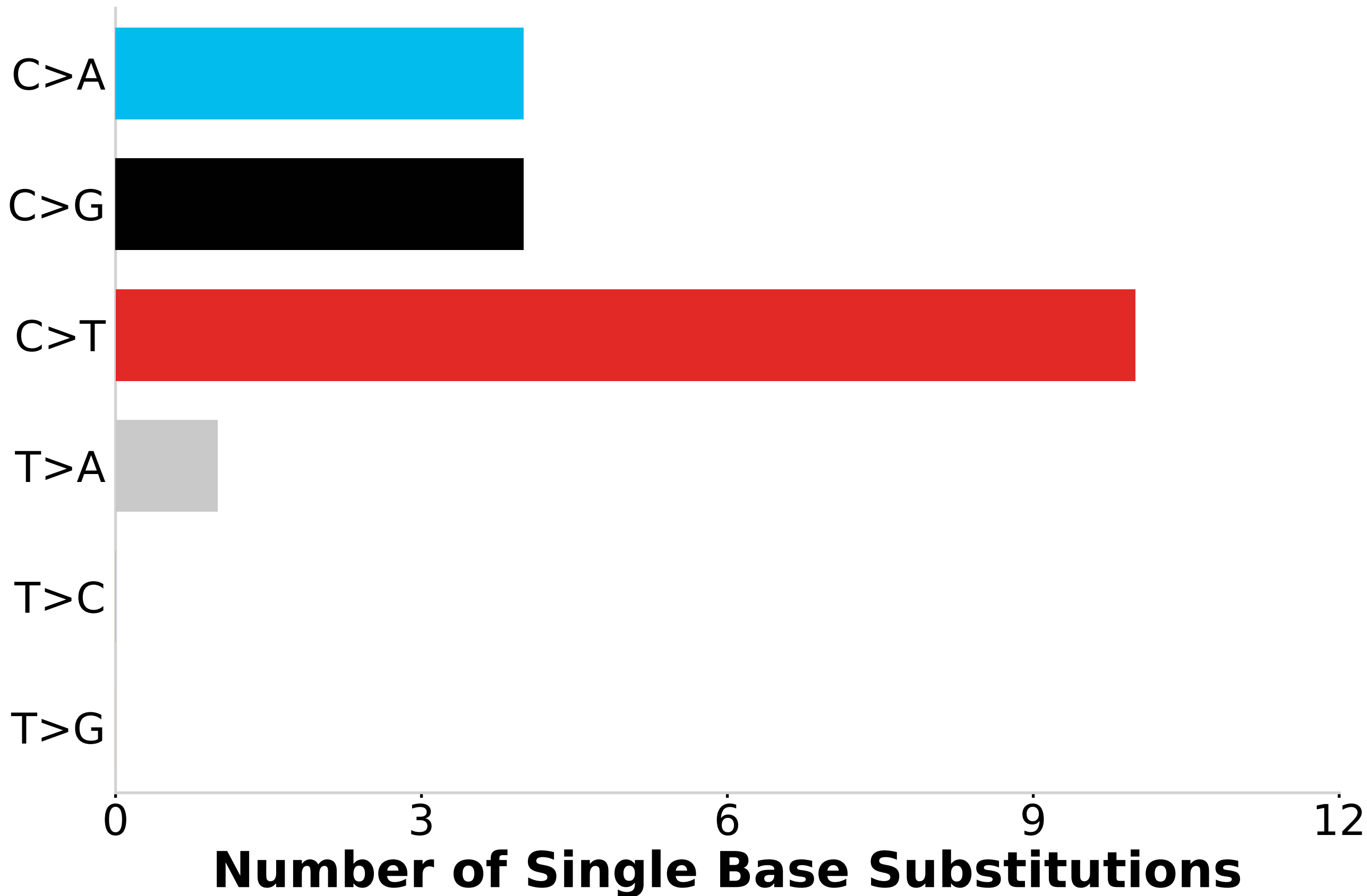
TCGA-GU-A42Q-01A-11D-A23U-08: 44 subs



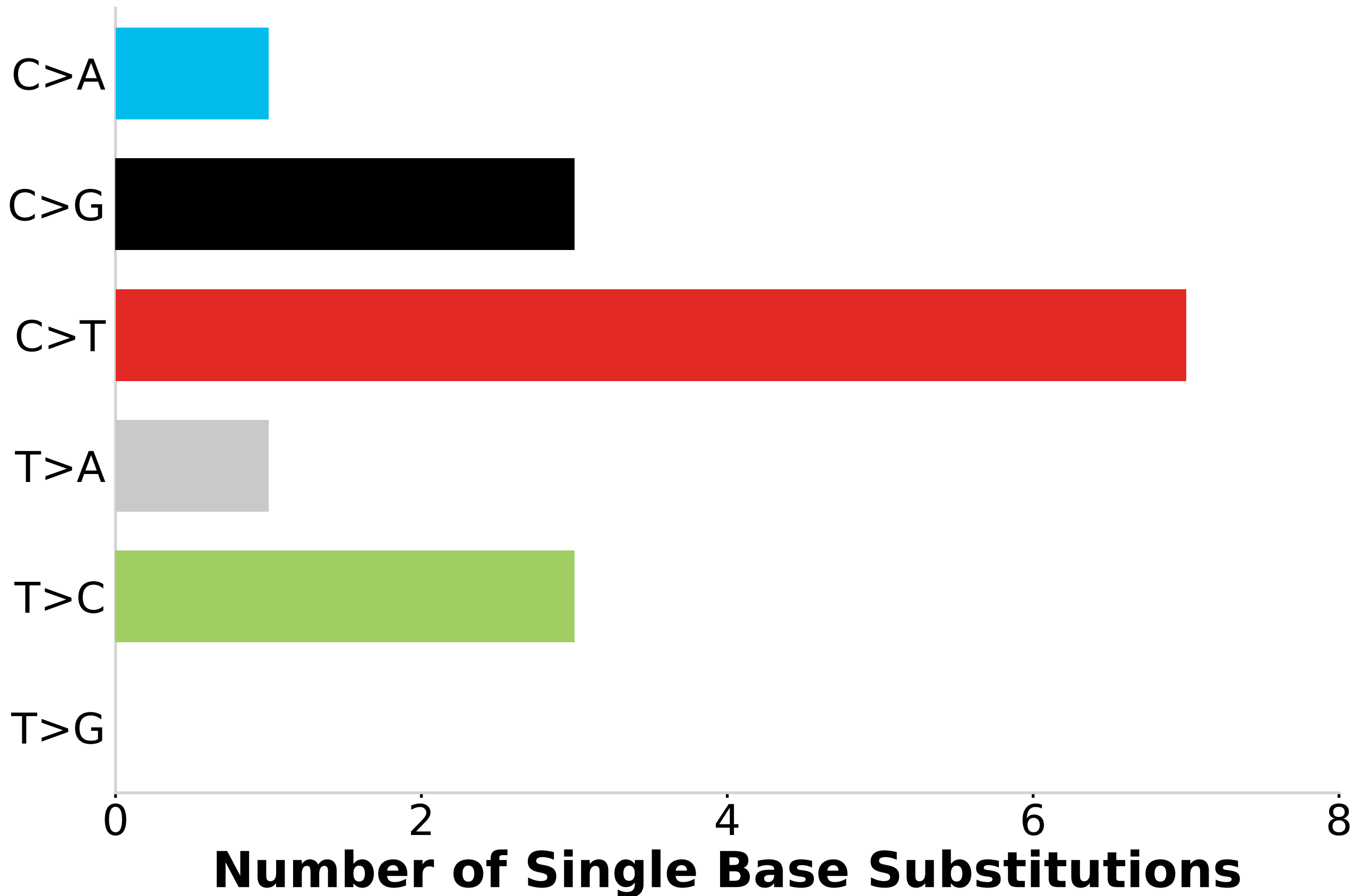
TCGA-GU-A42R-01A-11D-A23M-08: 43 sub



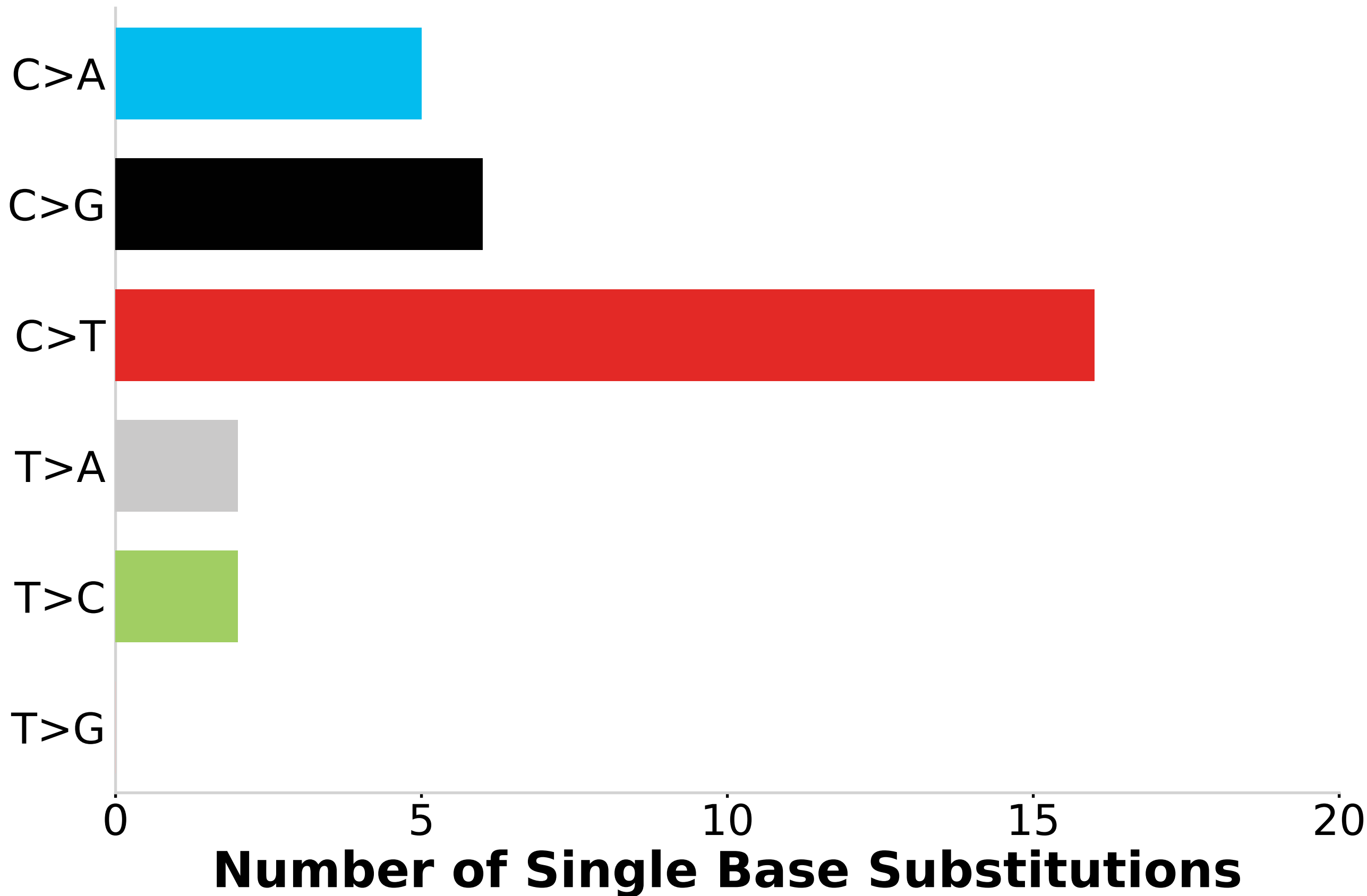
TCGA-GU-A762-01A-11D-A339-08: 19 subs



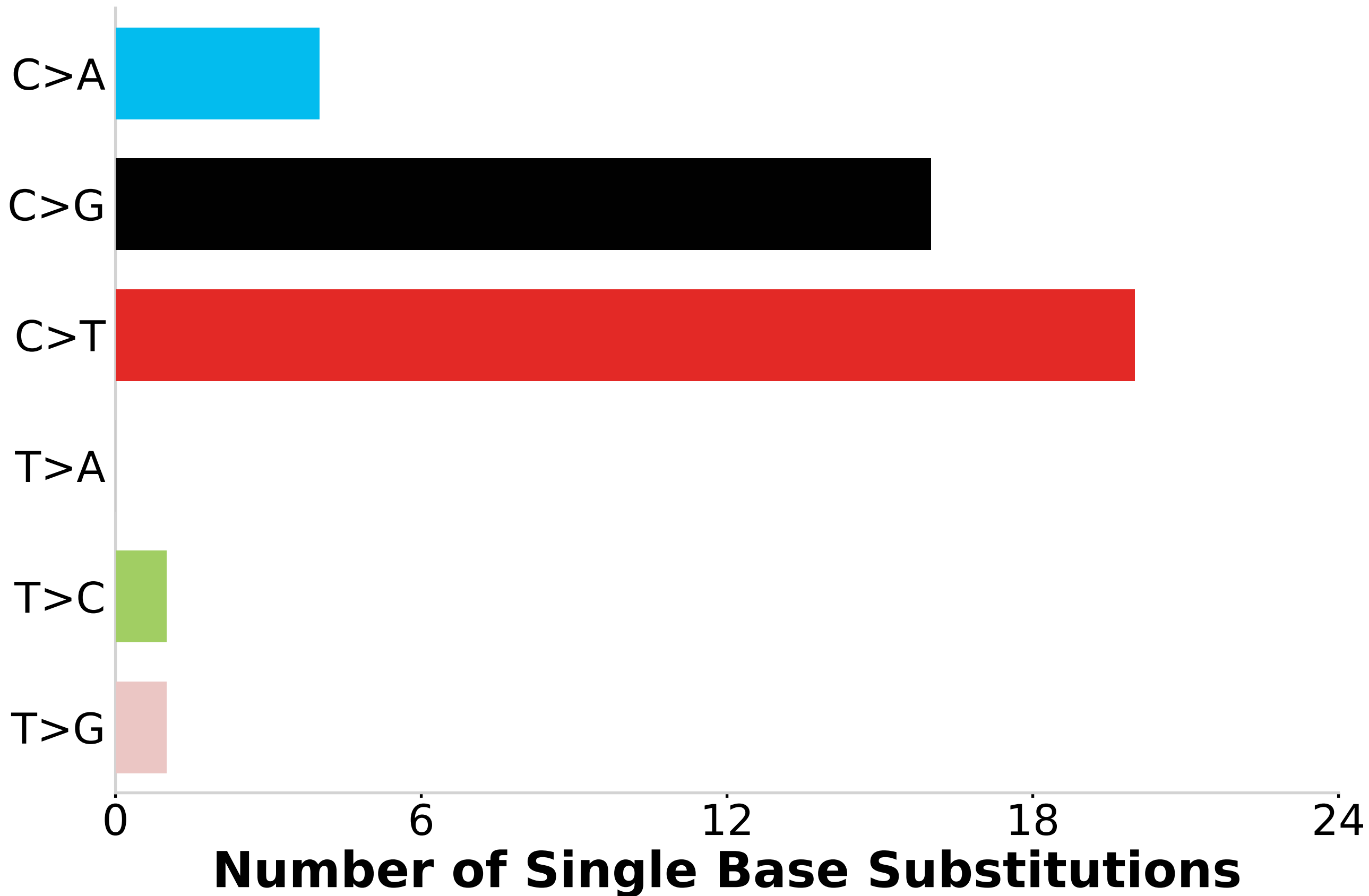
TCGA-GU-A763-01A-11D-A32B-08: 15 subs



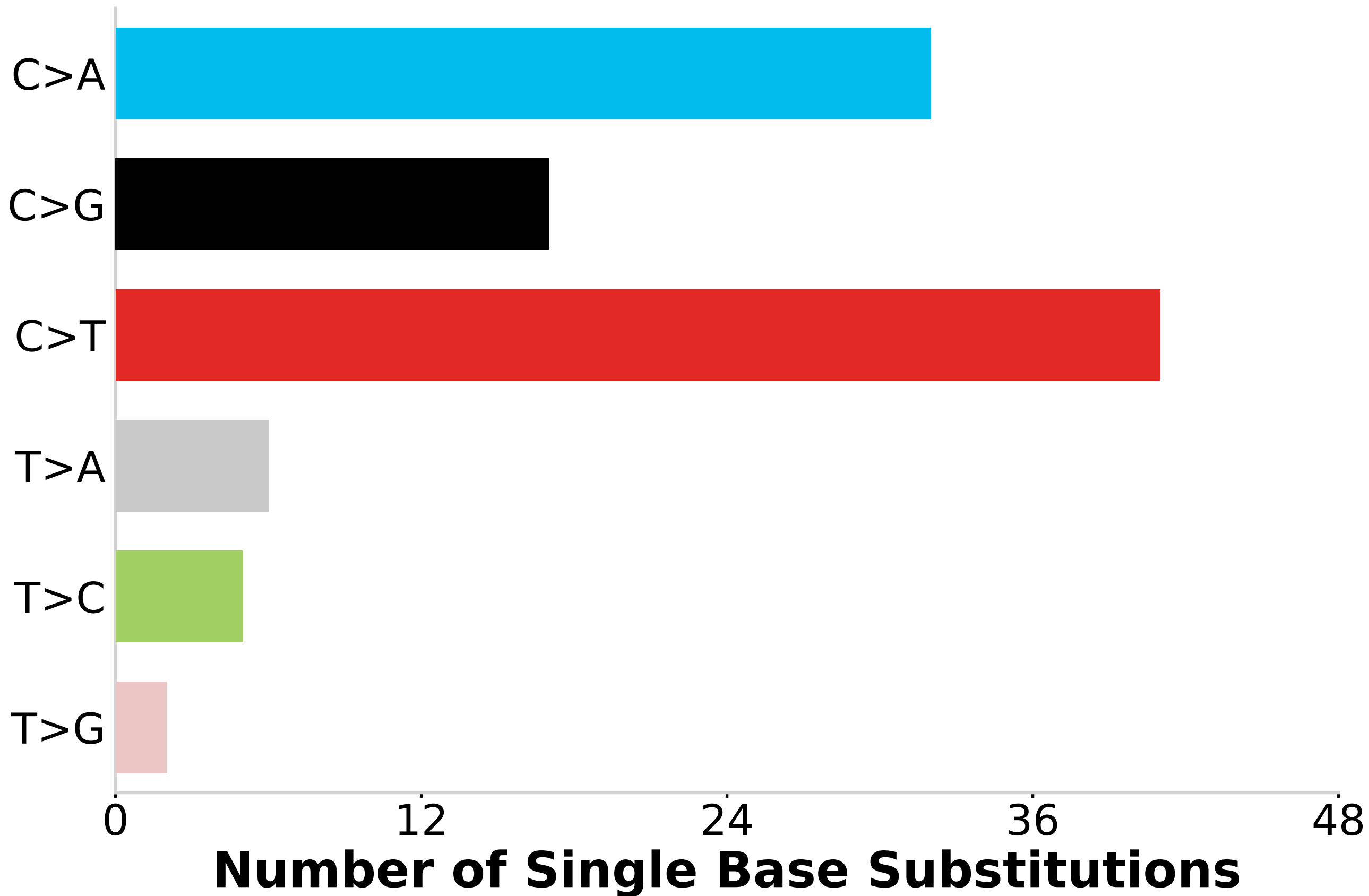
TCGA-GU-A764-01A-11D-A34U-08: 31 subs



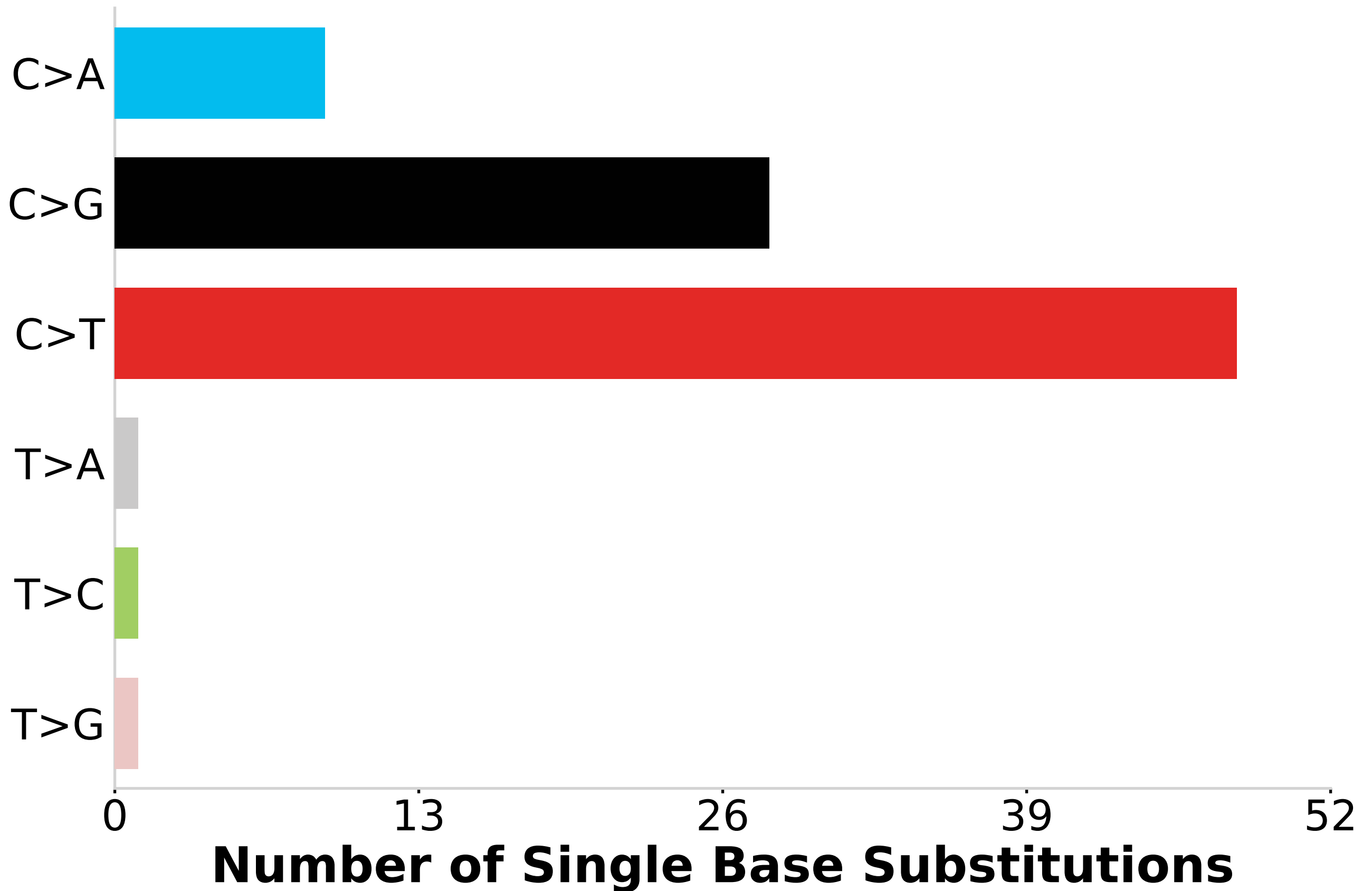
TCGA-GU-A766-01A-11D-A32B-08: 42 subs



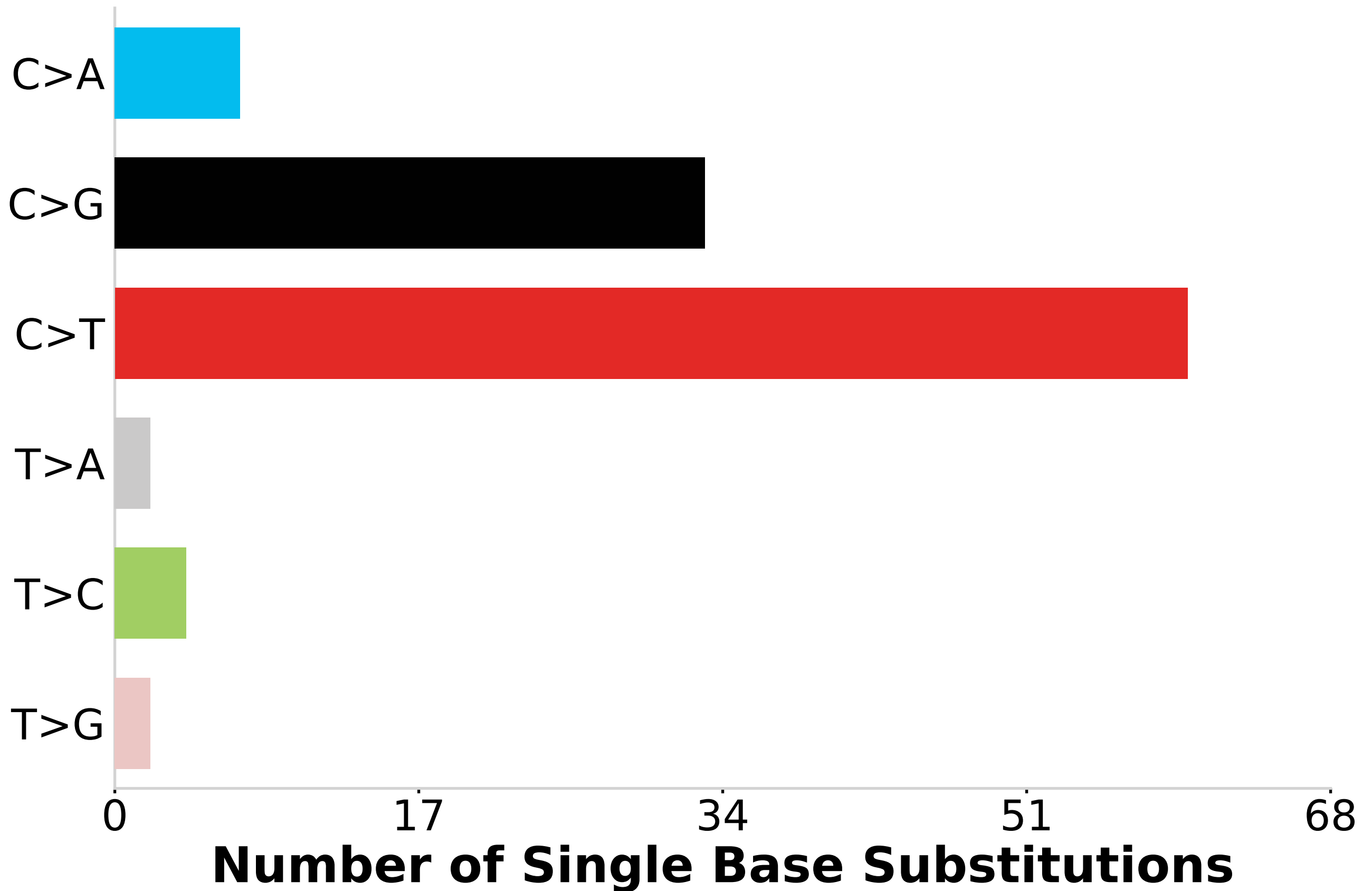
TCGA-GU-A767-01A-11D-A32B-08: 103 sub



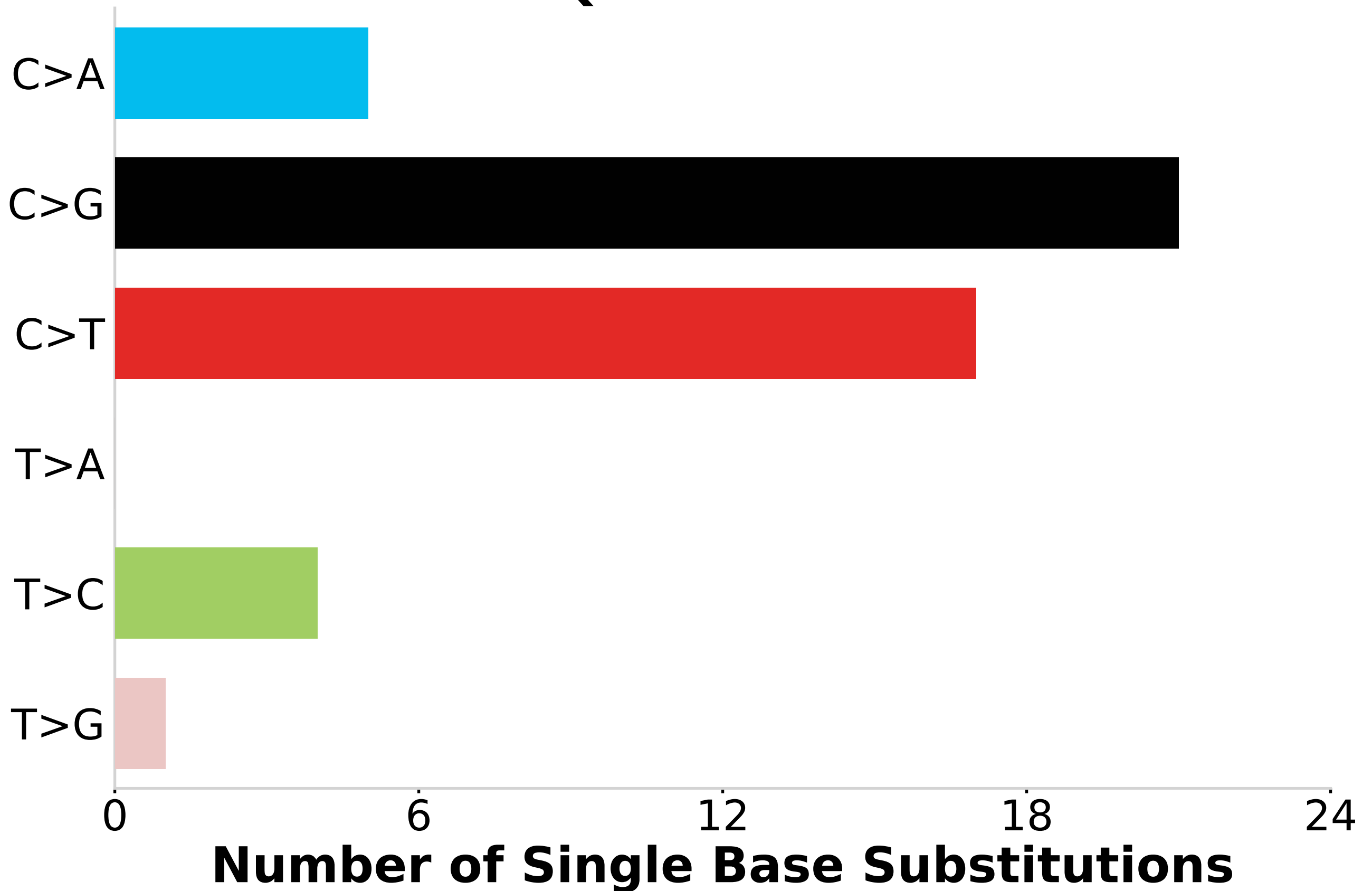
TCGA-GU-AATO-01A-11D-A391-08: 88 subs



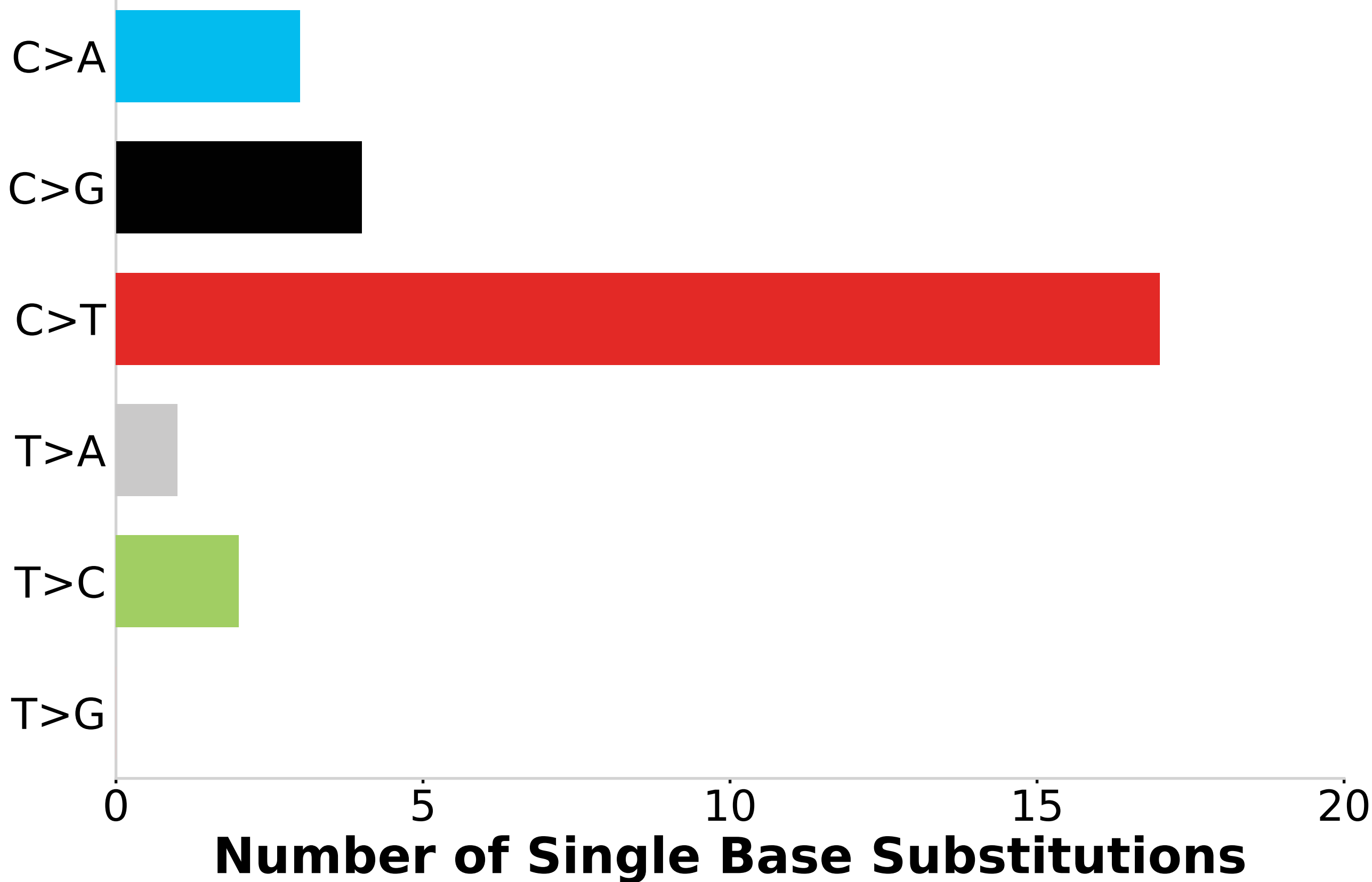
TCGA-GU-AATP-01A-11D-A391-08: 108 sub



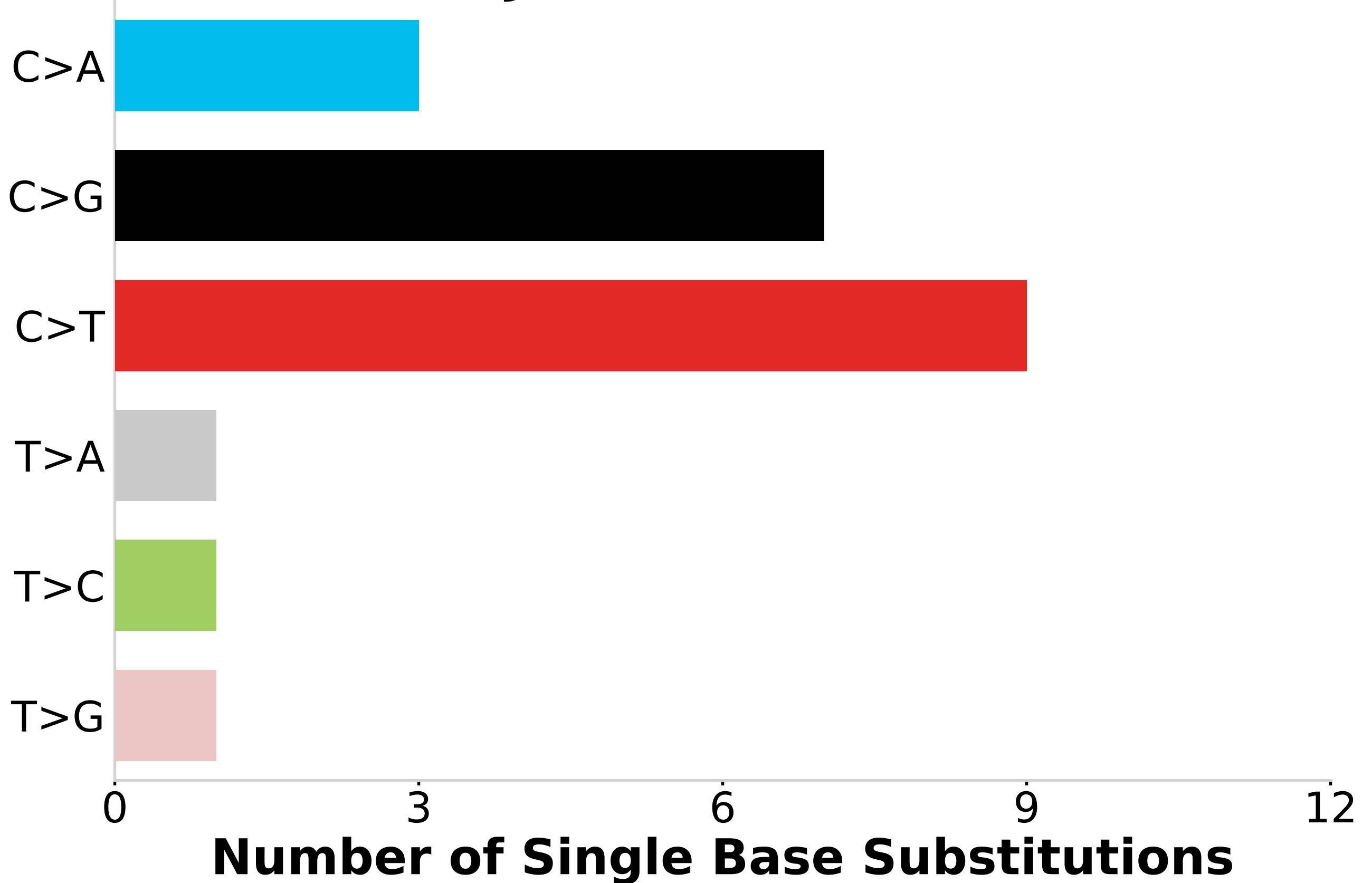
TCGA-GU-AATQ-01A-11D-A391-08: 48 subs



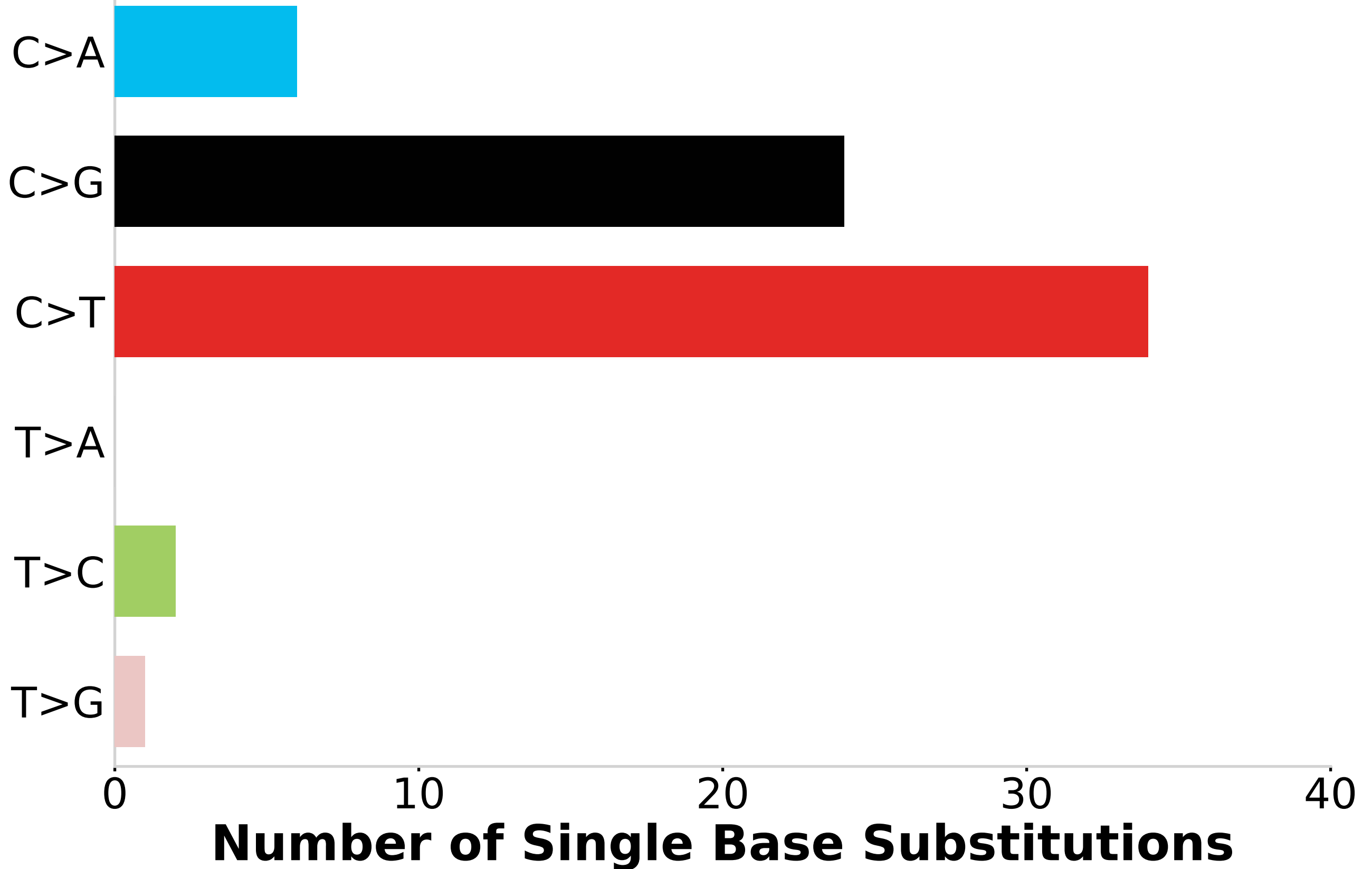
TCGA-GV-A3JV-01A-11D-A21Z-08: 27 subs



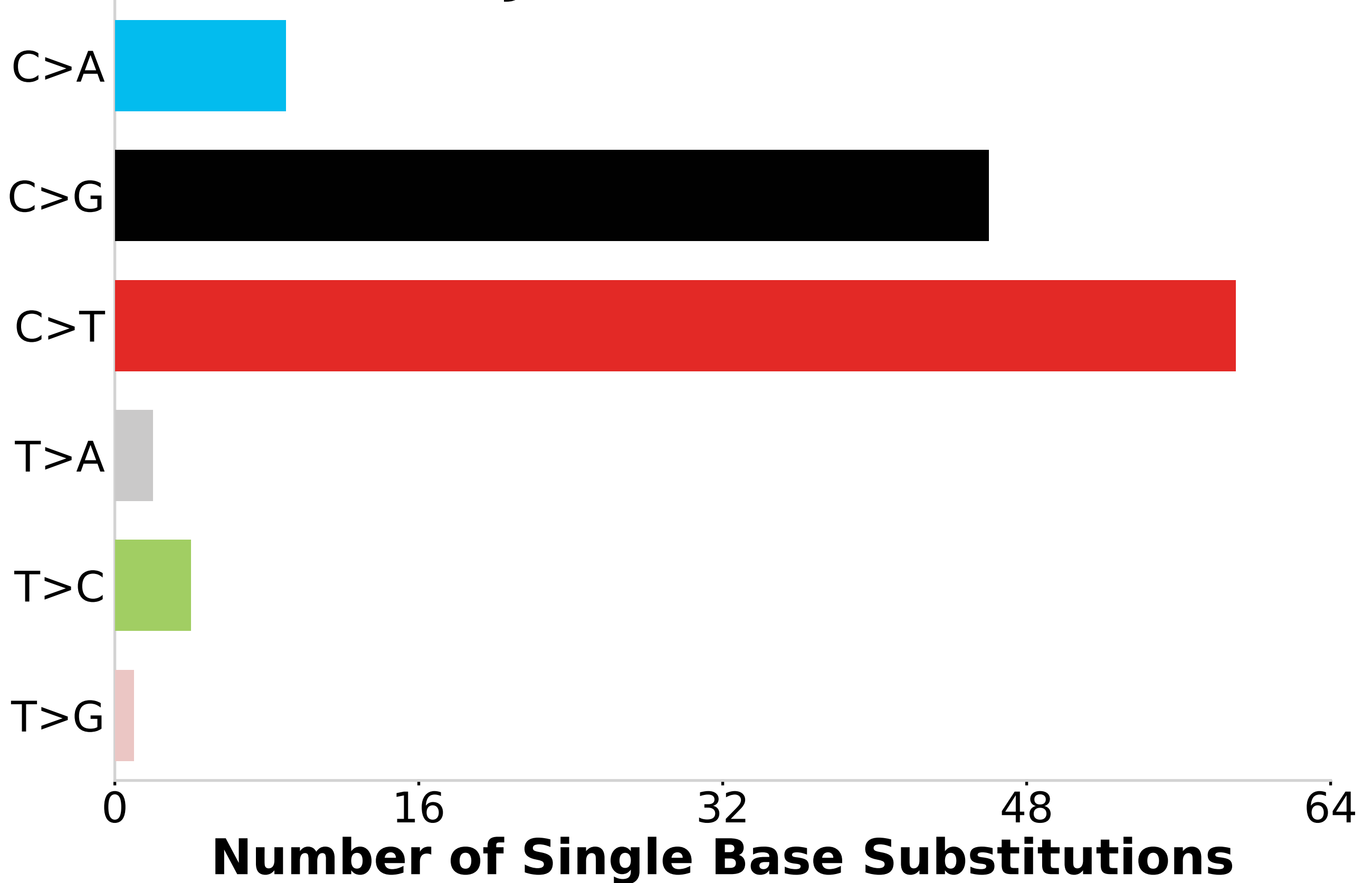
TCGA-GV-A3JW-01A-11D-A20D-08: 22 subs



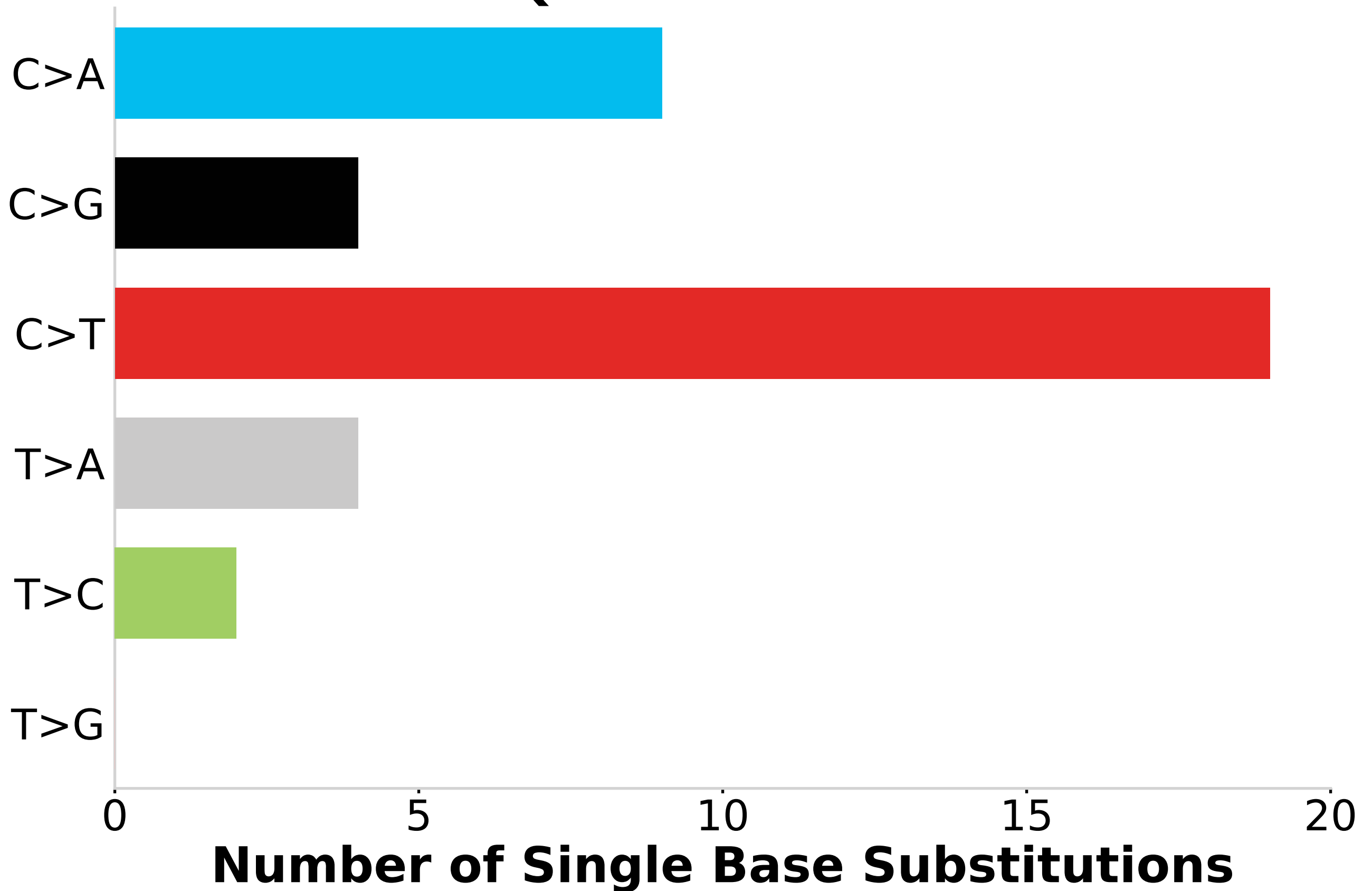
TCGA-GV-A3JX-01A-11D-A20D-08: 67 subs



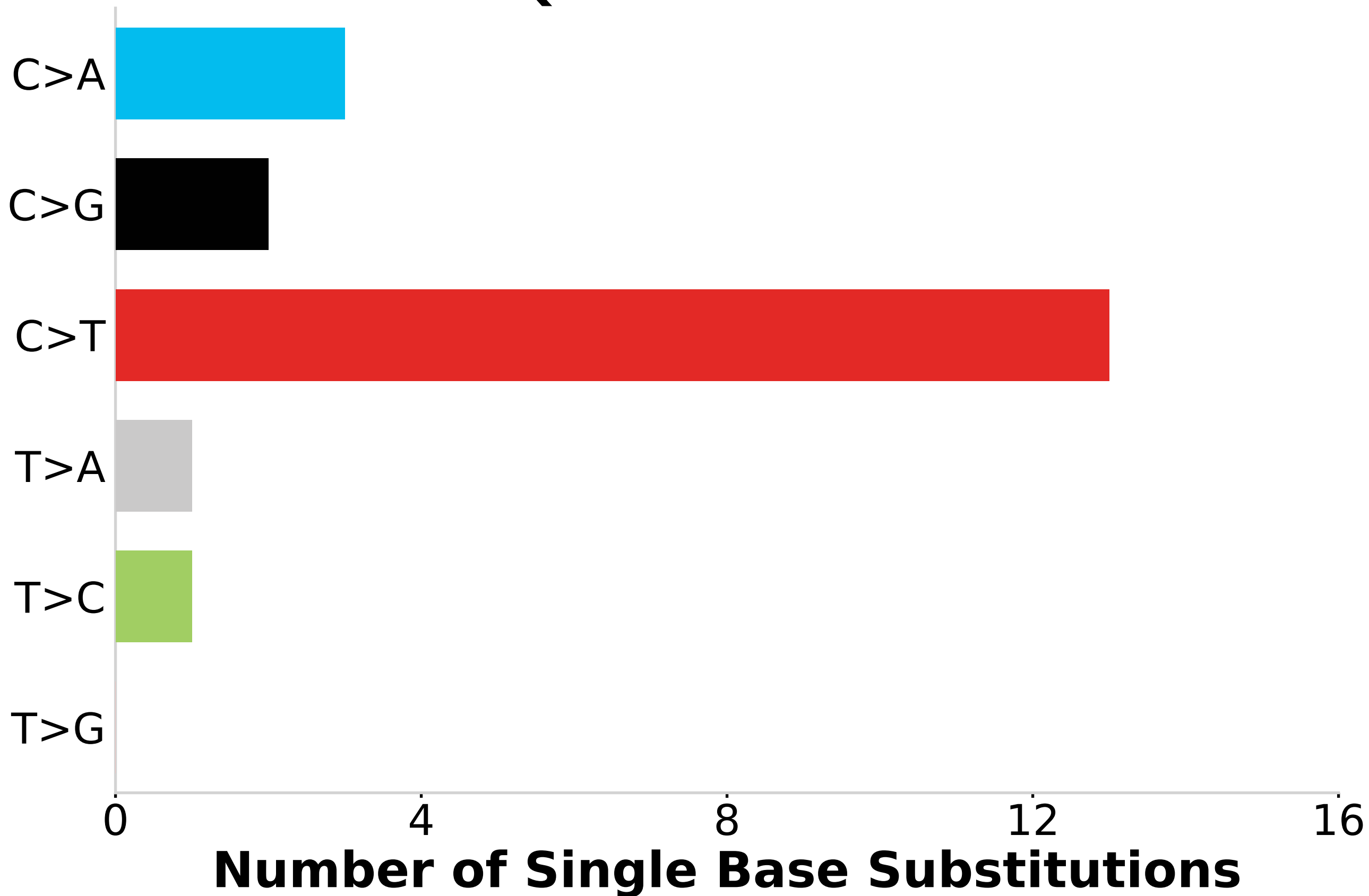
TCGA-GV-A3JZ-01A-11D-A21A-08: 121 subs



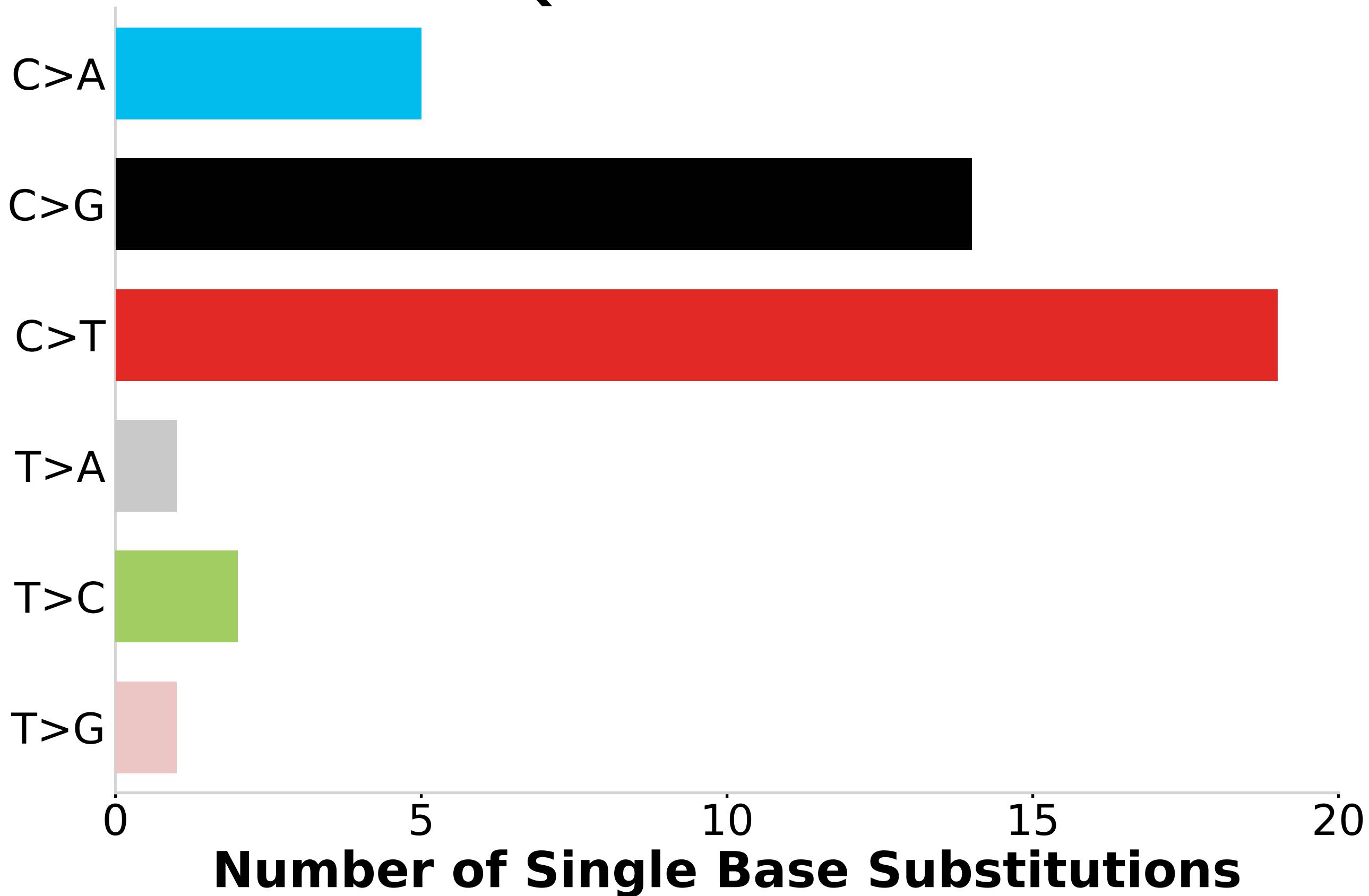
TCGA-GV-A3QF-01A-31D-A22Z-08: 38 subs



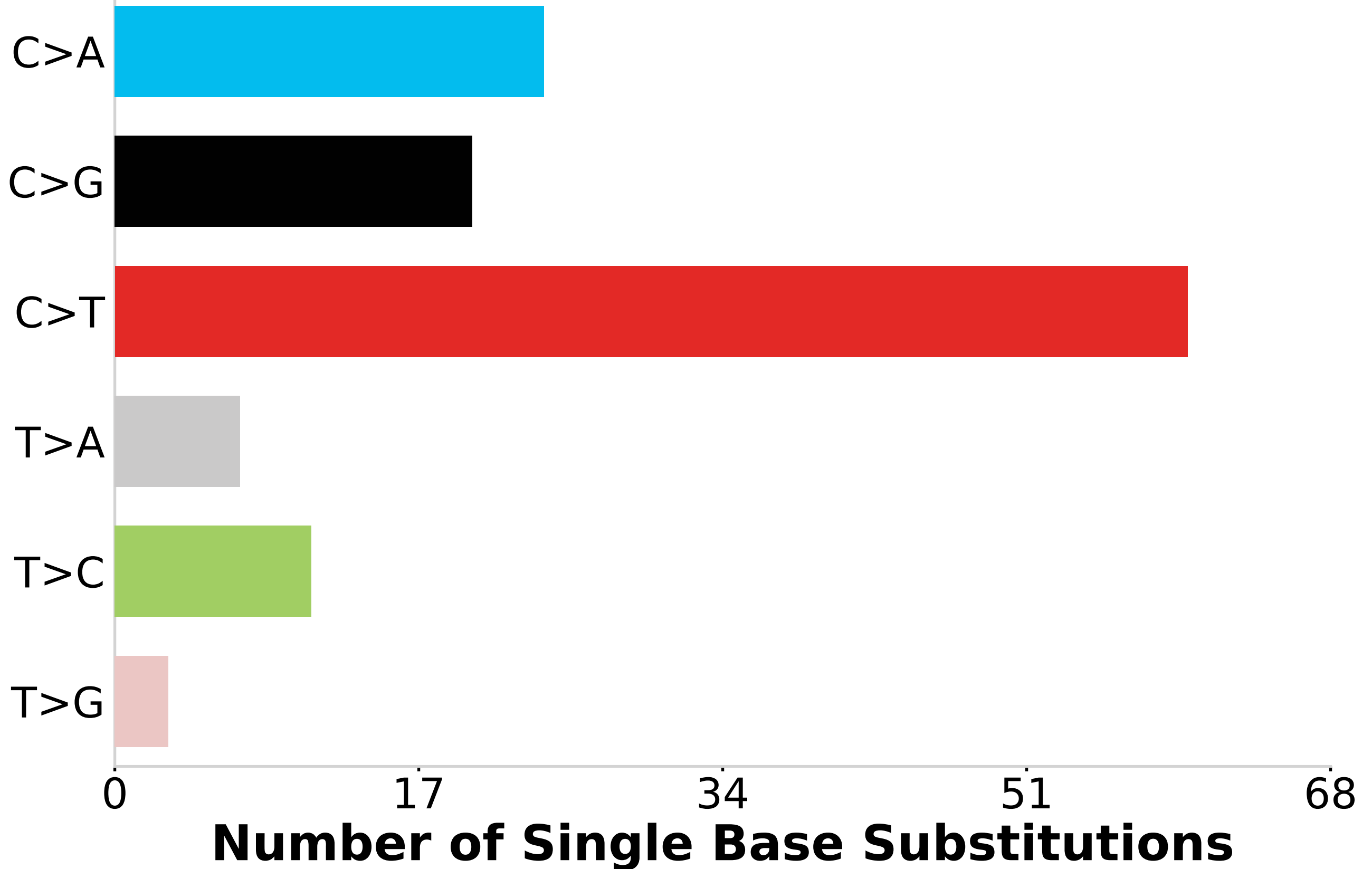
TCGA-GV-A3QG-01A-11D-A21Z-08: 20 subs



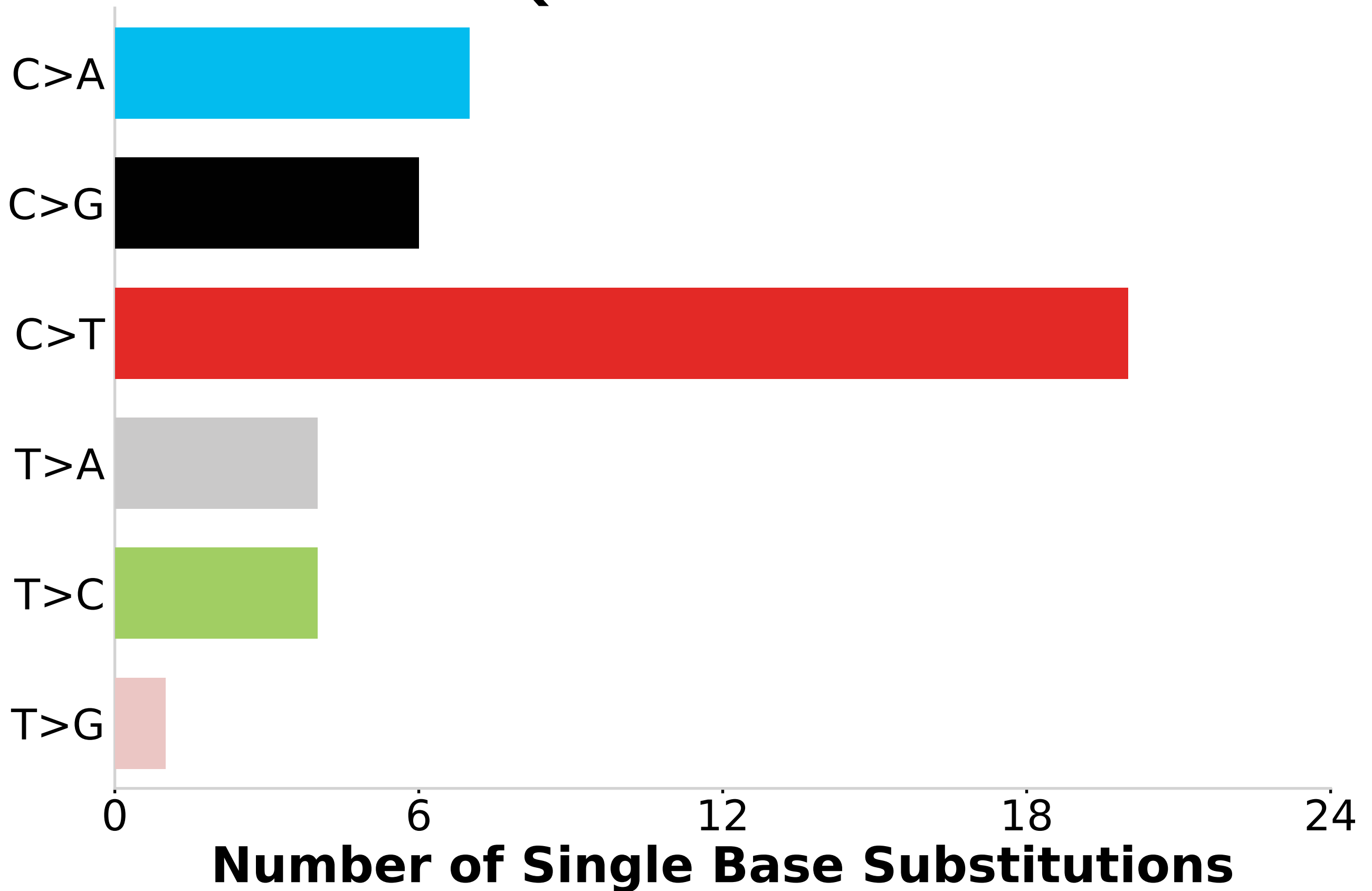
TCGA-GV-A3QH-01A-11D-A21Z-08: 42 subs



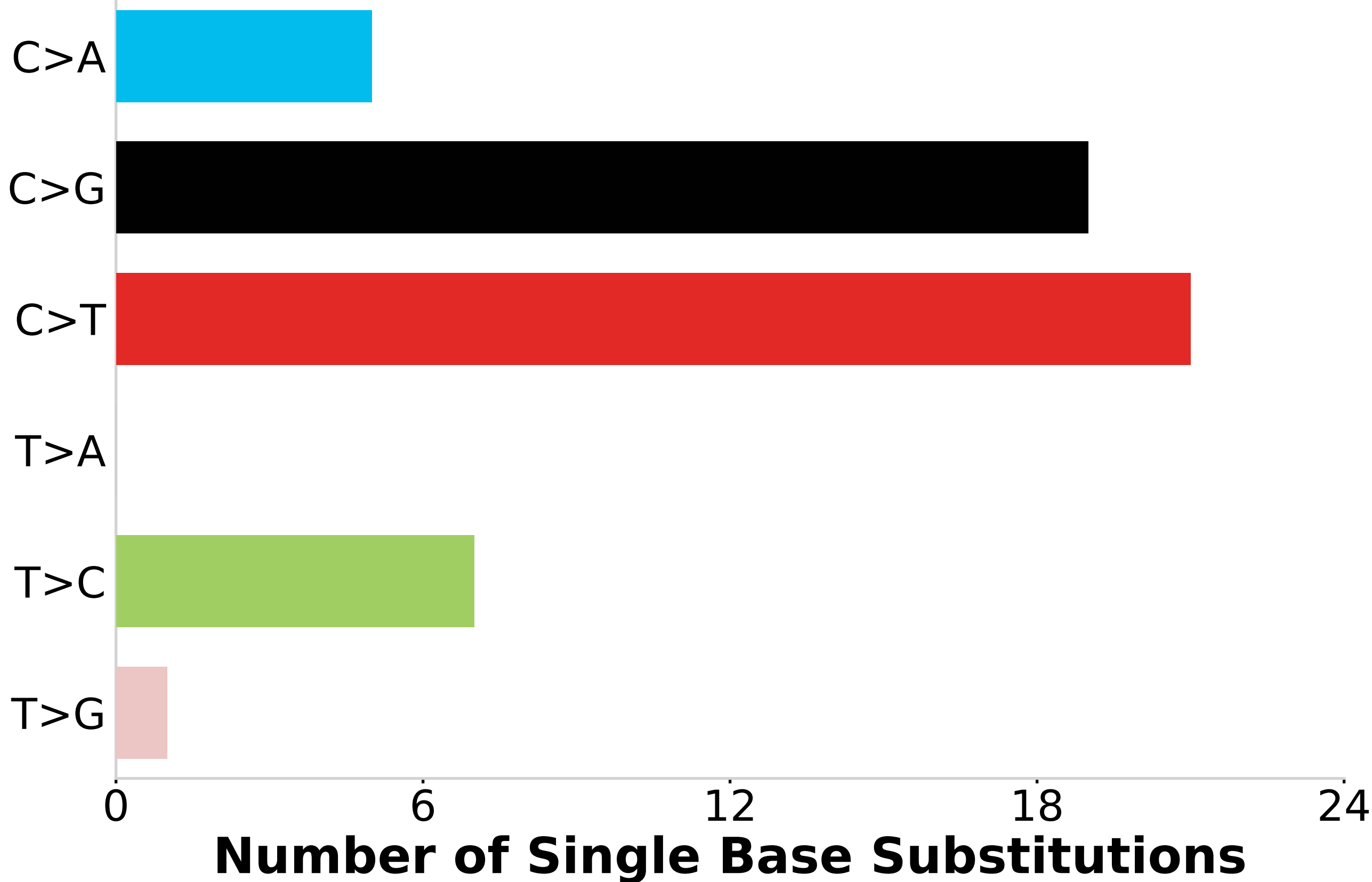
TCGA-GV-A3QI-01A-11D-A21Z-08: 125 sub



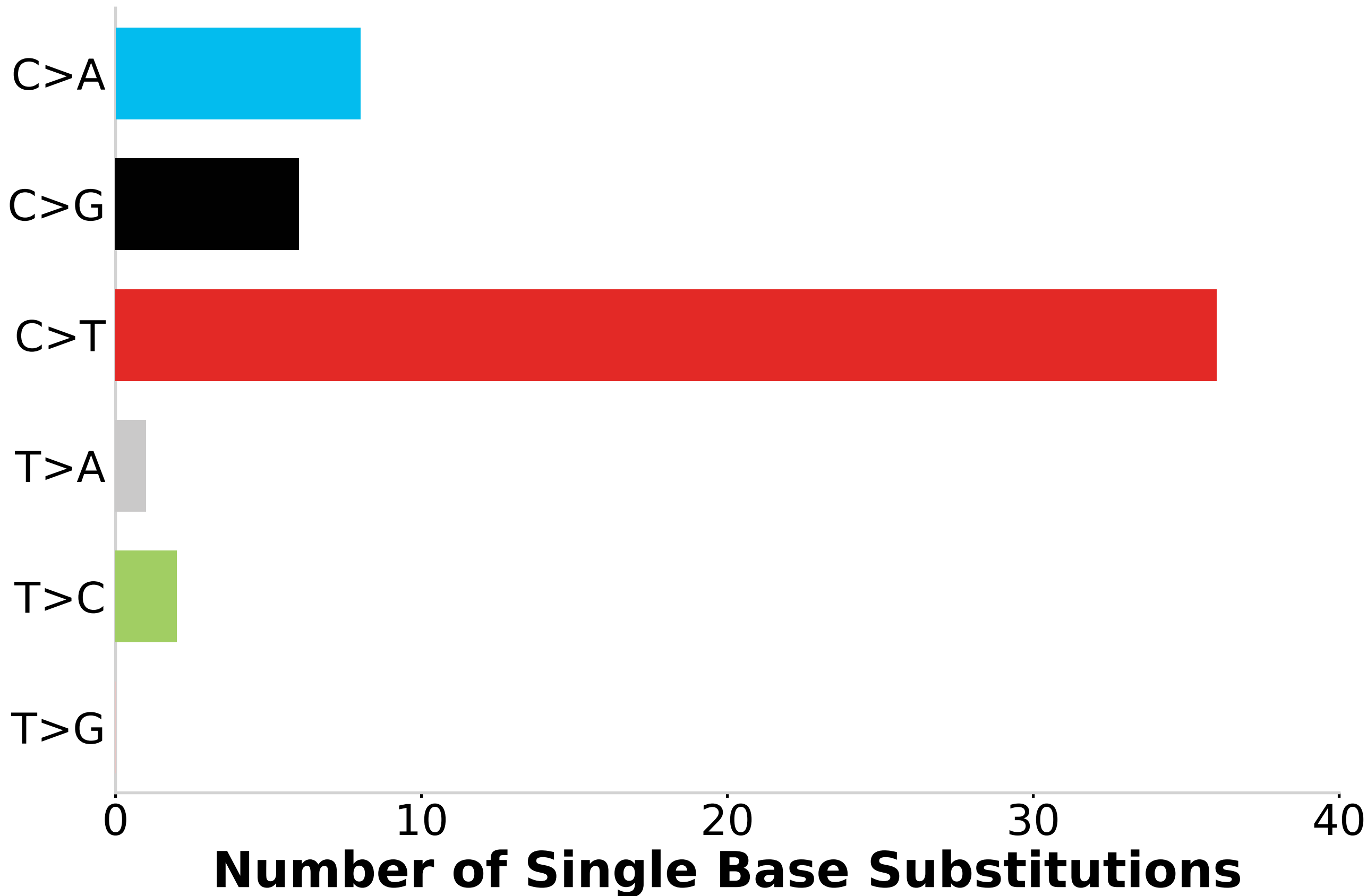
TCGA-GV-A3QK-01B-11D-A23M-08: 42 subs



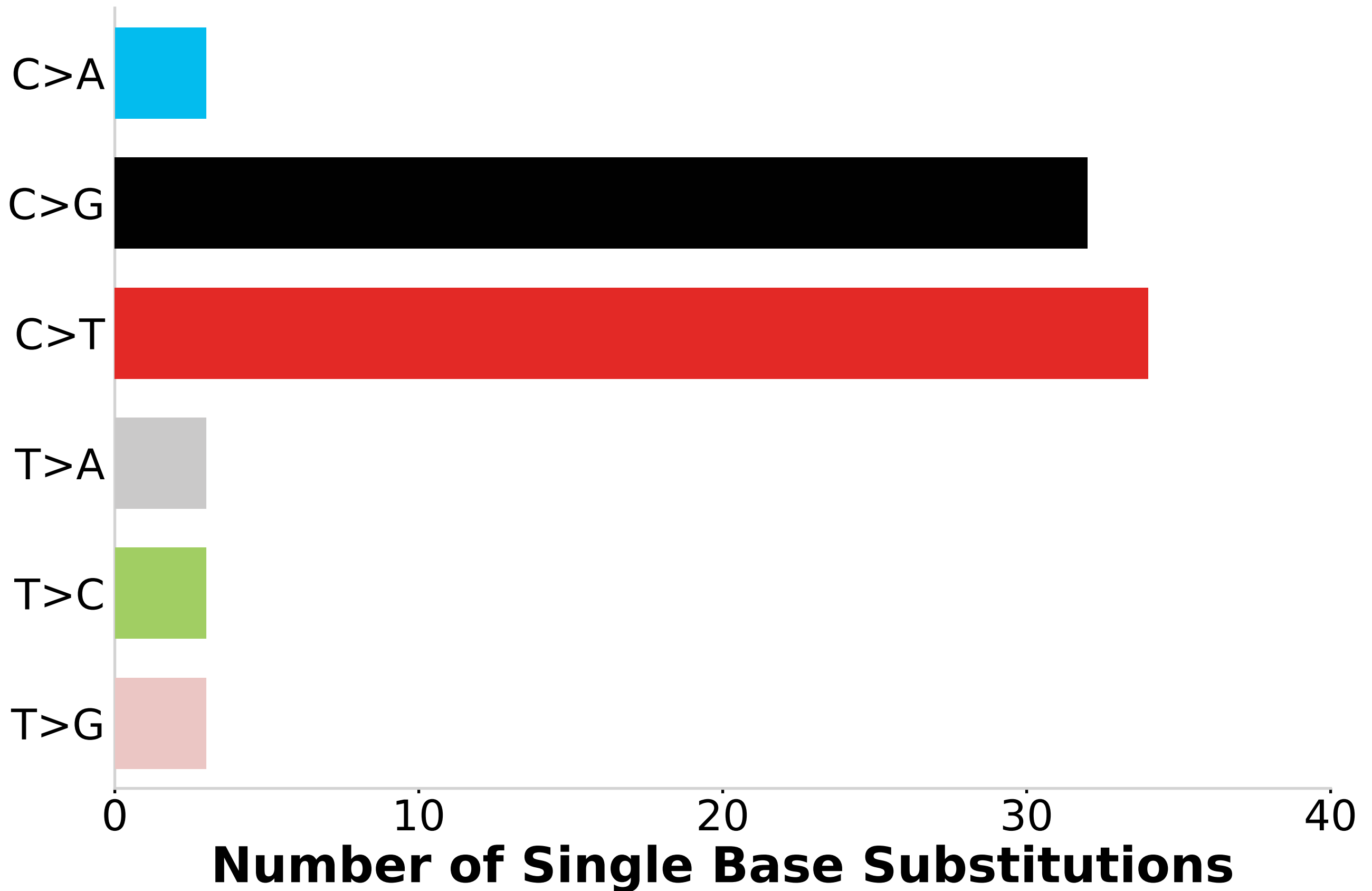
TCGA-GV-A40E-01A-12D-A23M-08: 53 subs



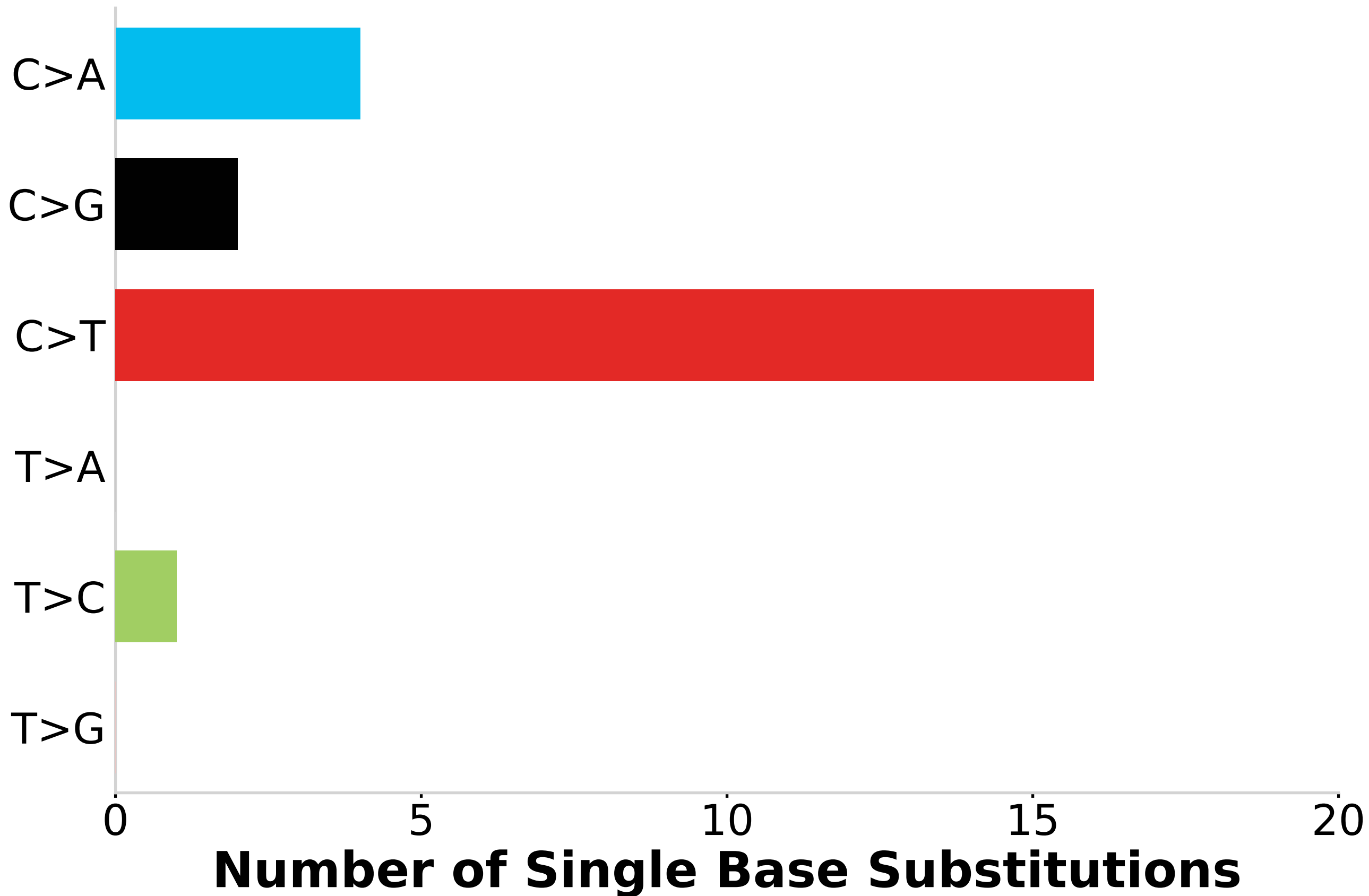
TCGA-GV-A40G-01A-11D-A23M-08: 53 subs



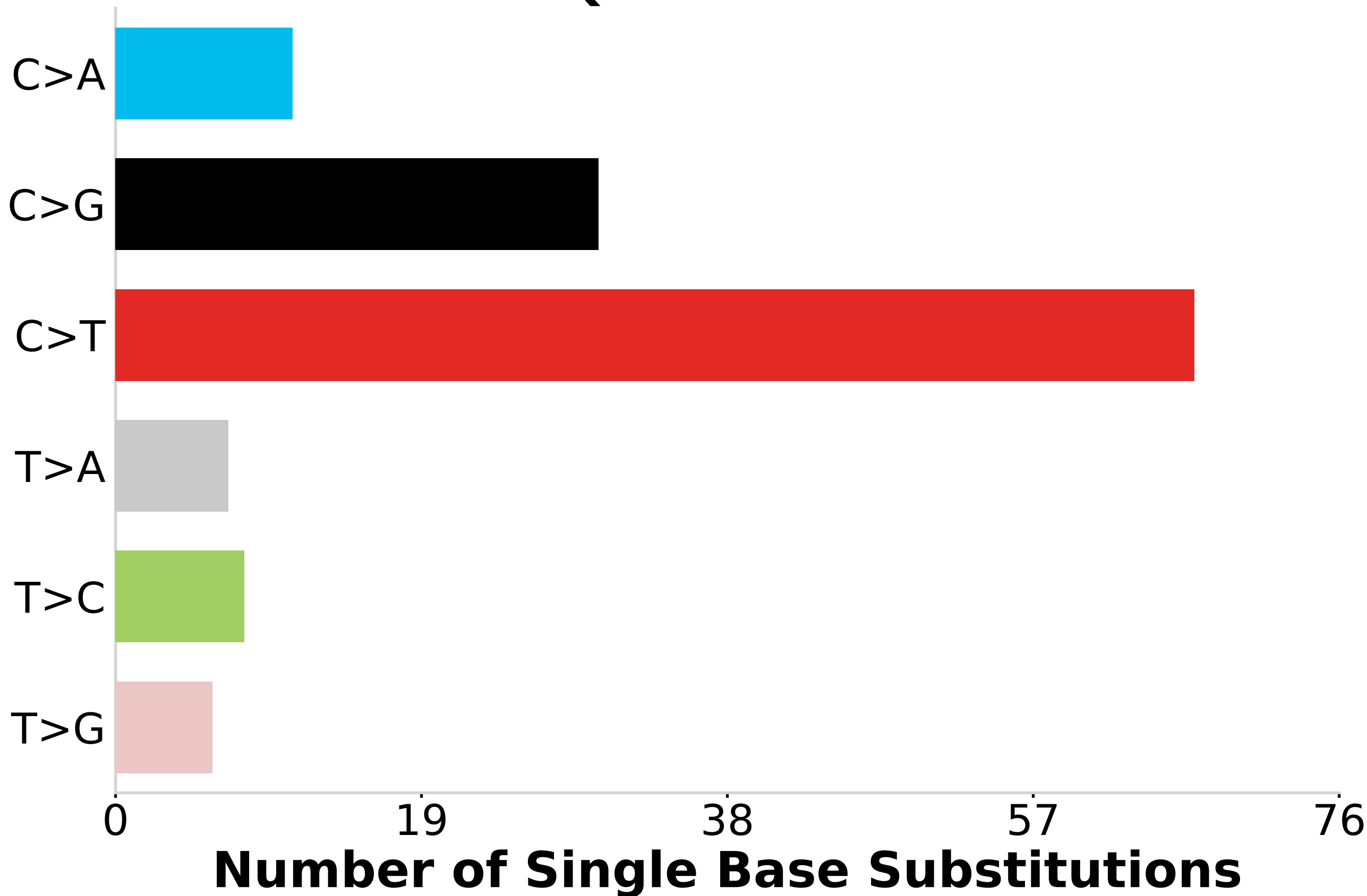
TCGA-GV-A6ZA-01A-12D-A339-08: 78 subs



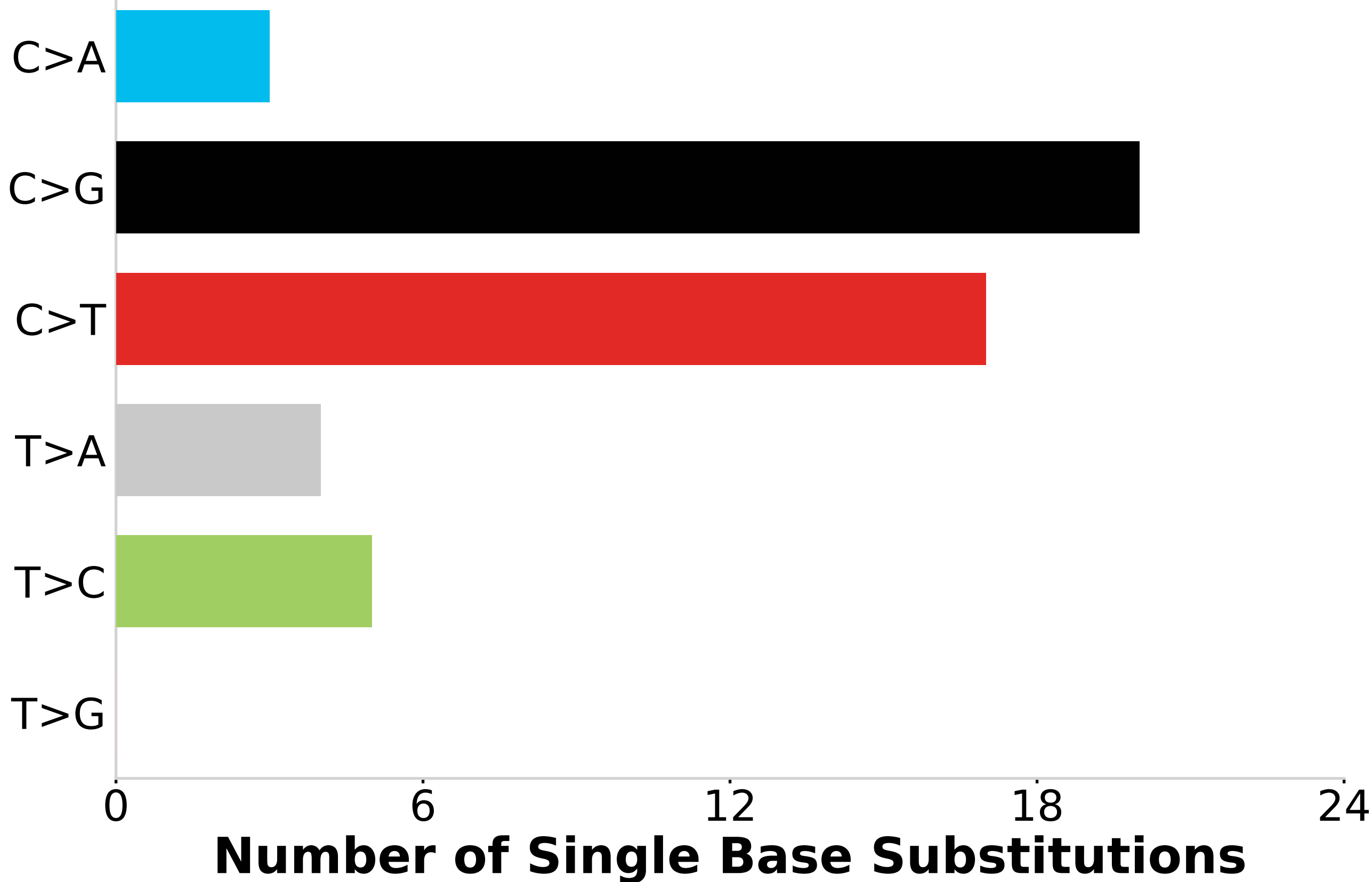
TCGA-H4-A2HO-01A-11D-A17V-08: 23 subs



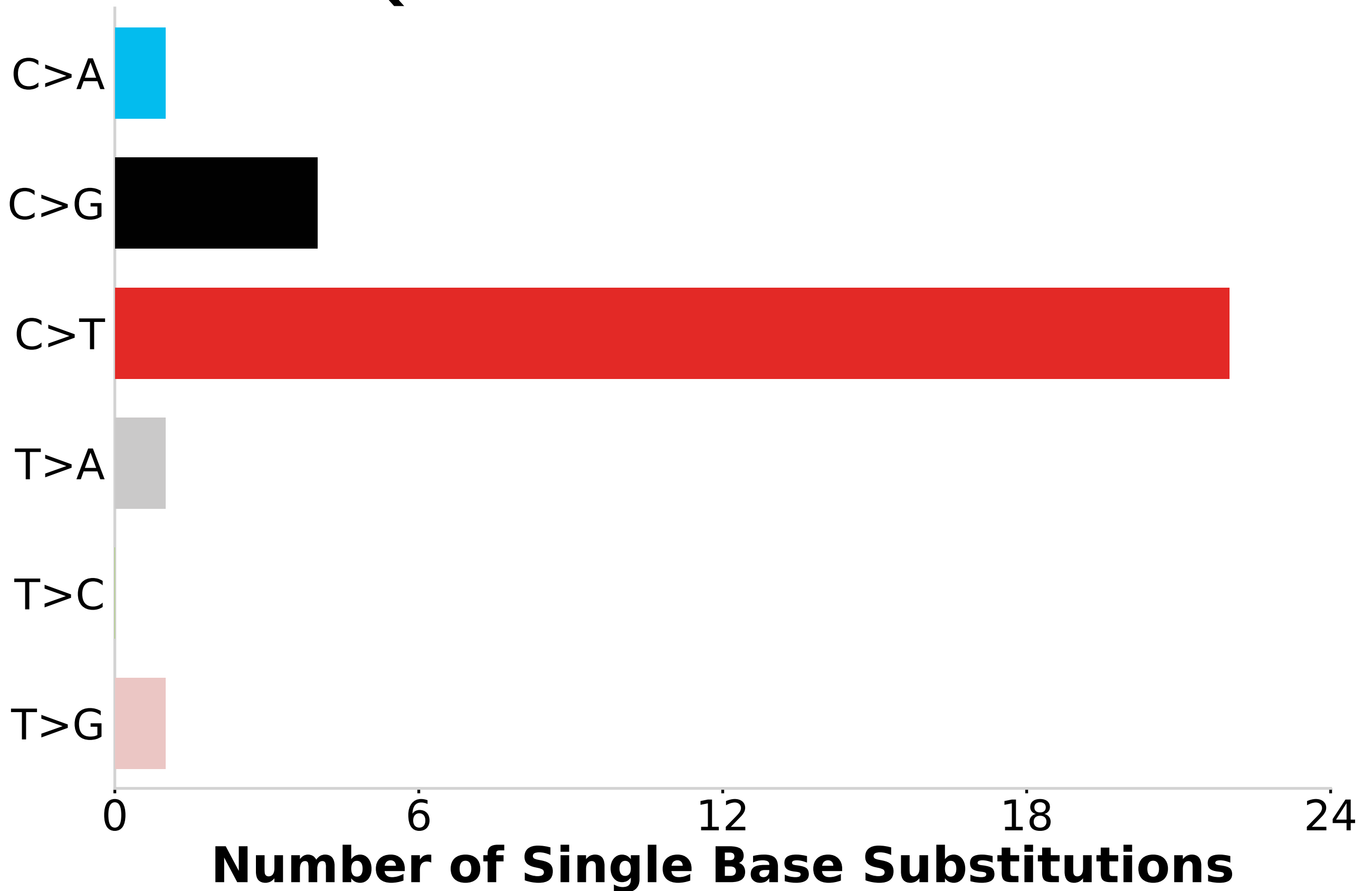
TCGA-H4-A2HQ-01A-11D-A17V-08: 129 substitutions



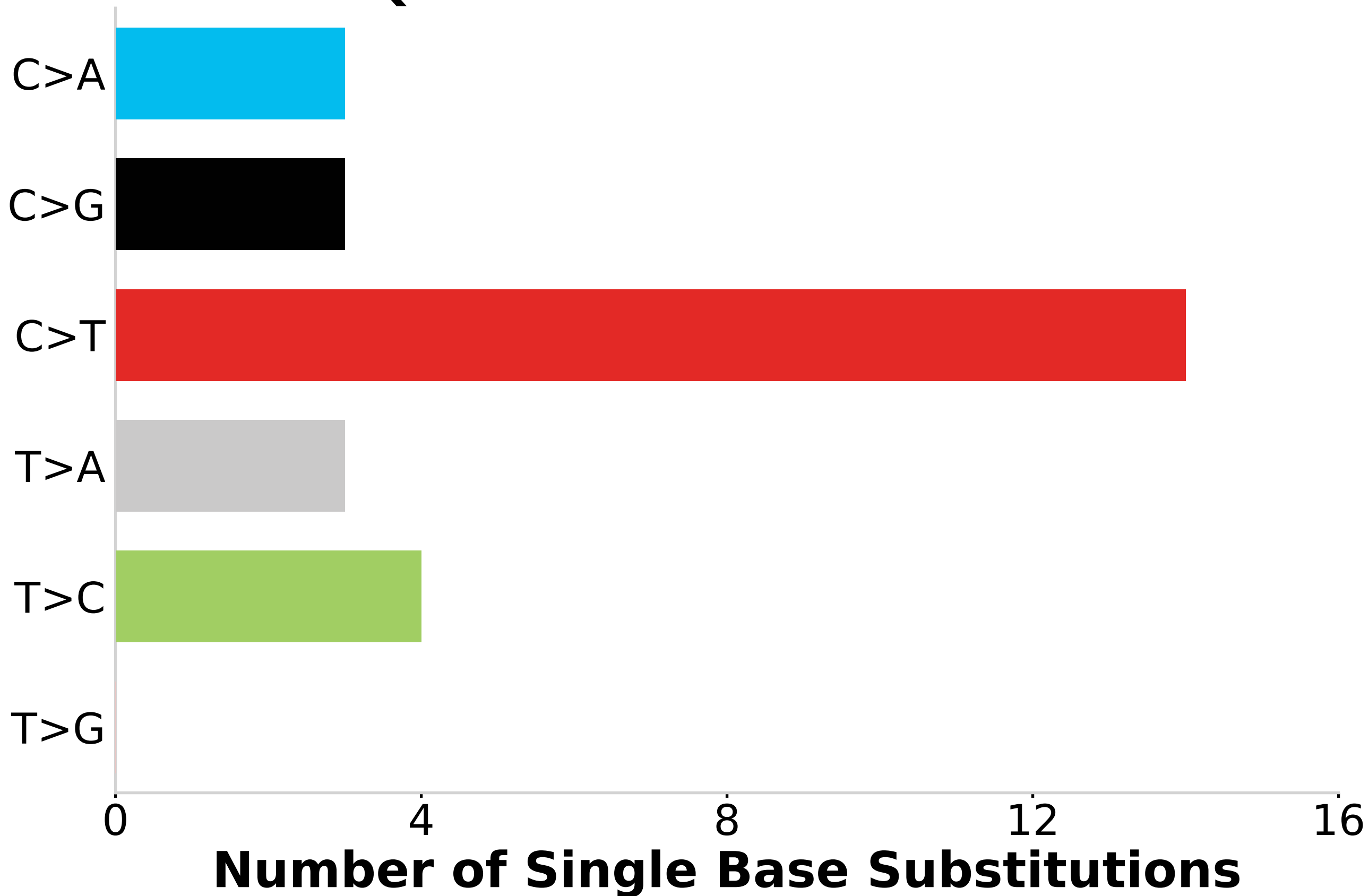
TCGA-HQ-A20E-01A-11D-A202-08: 49 subs



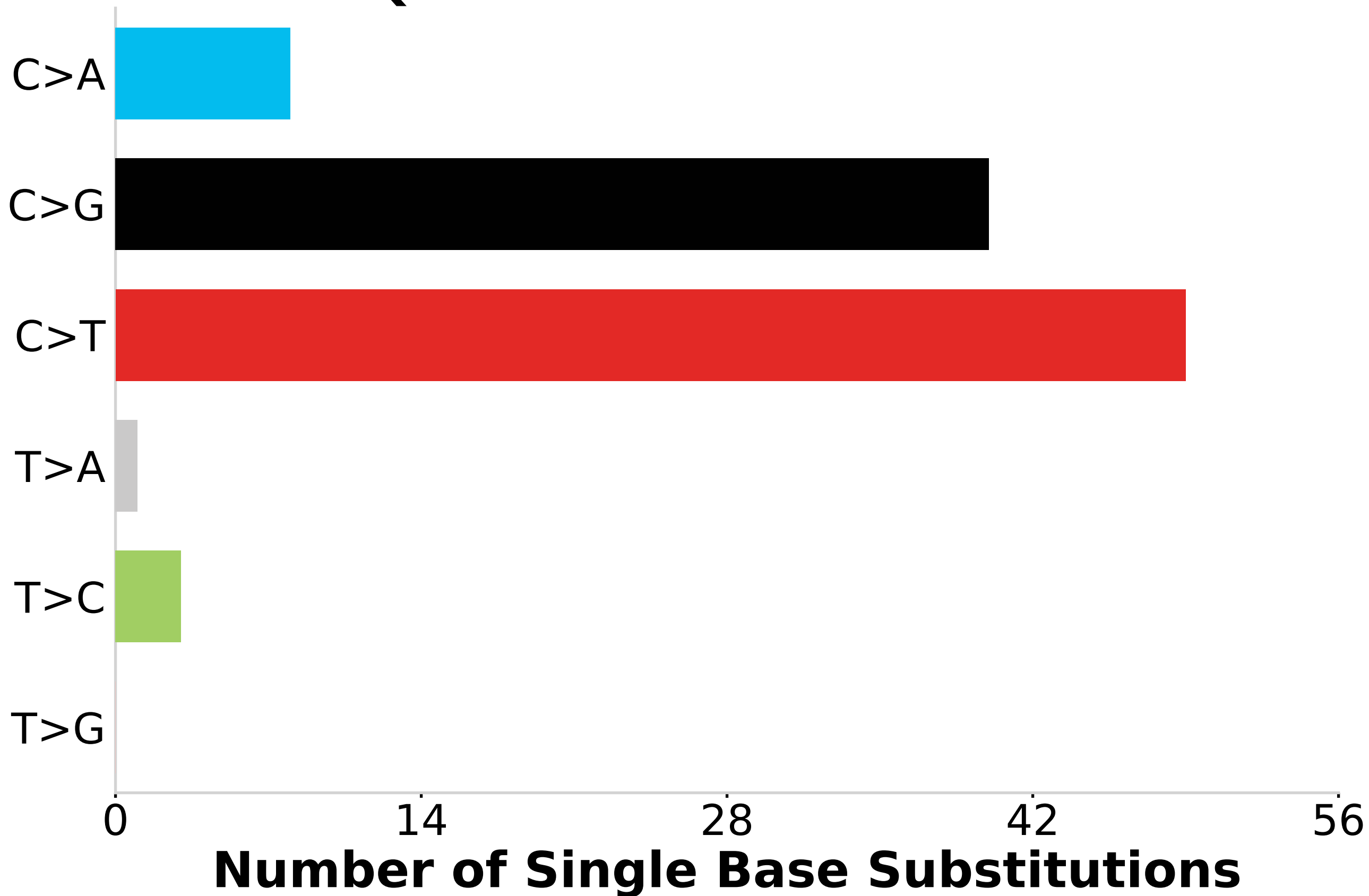
TCGA-HQ-A20F-01A-11D-A26M-08: 29 sub



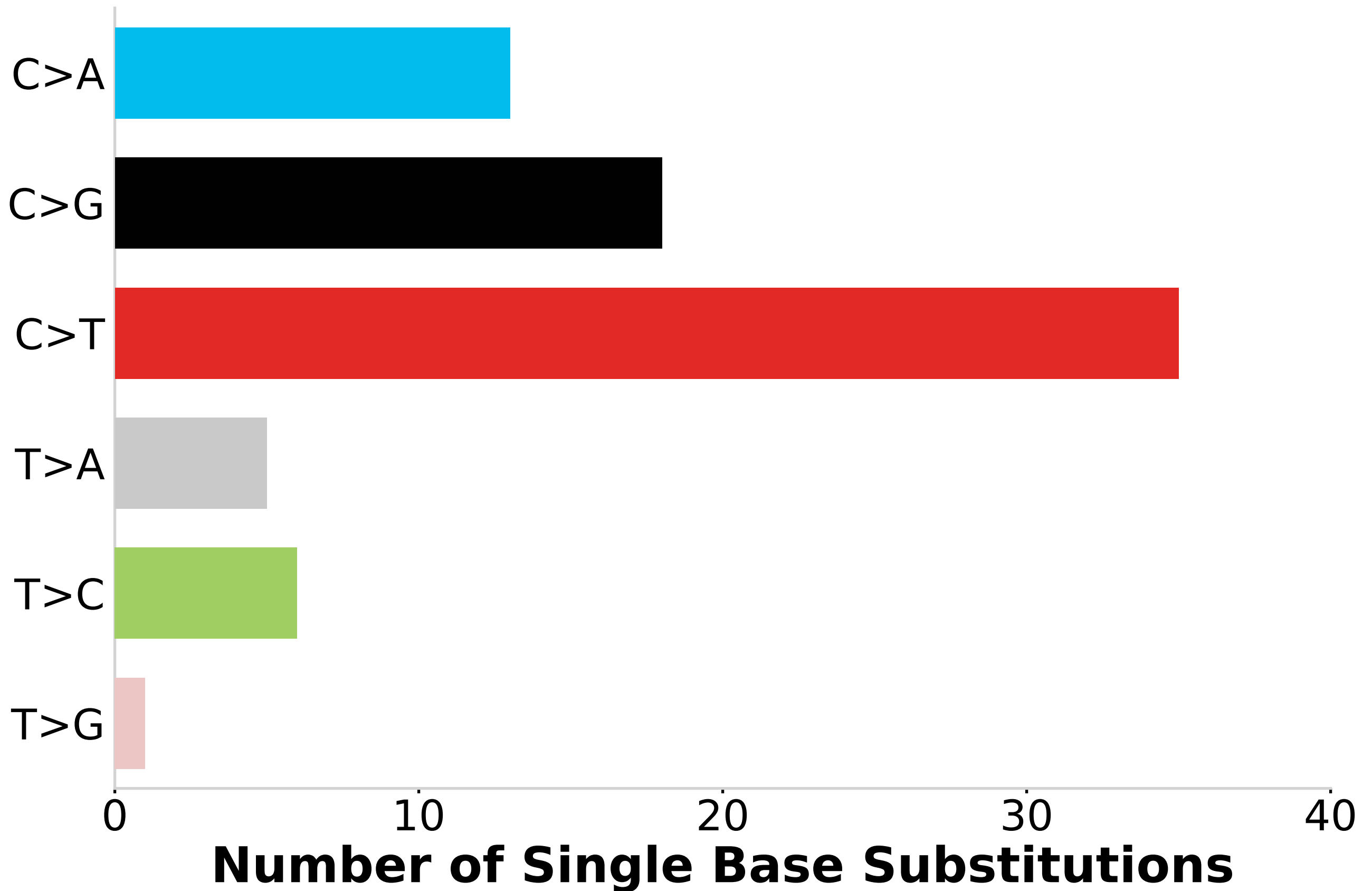
TCGA-HQ-A5ND-01A-11D-A26M-08: 27 sub



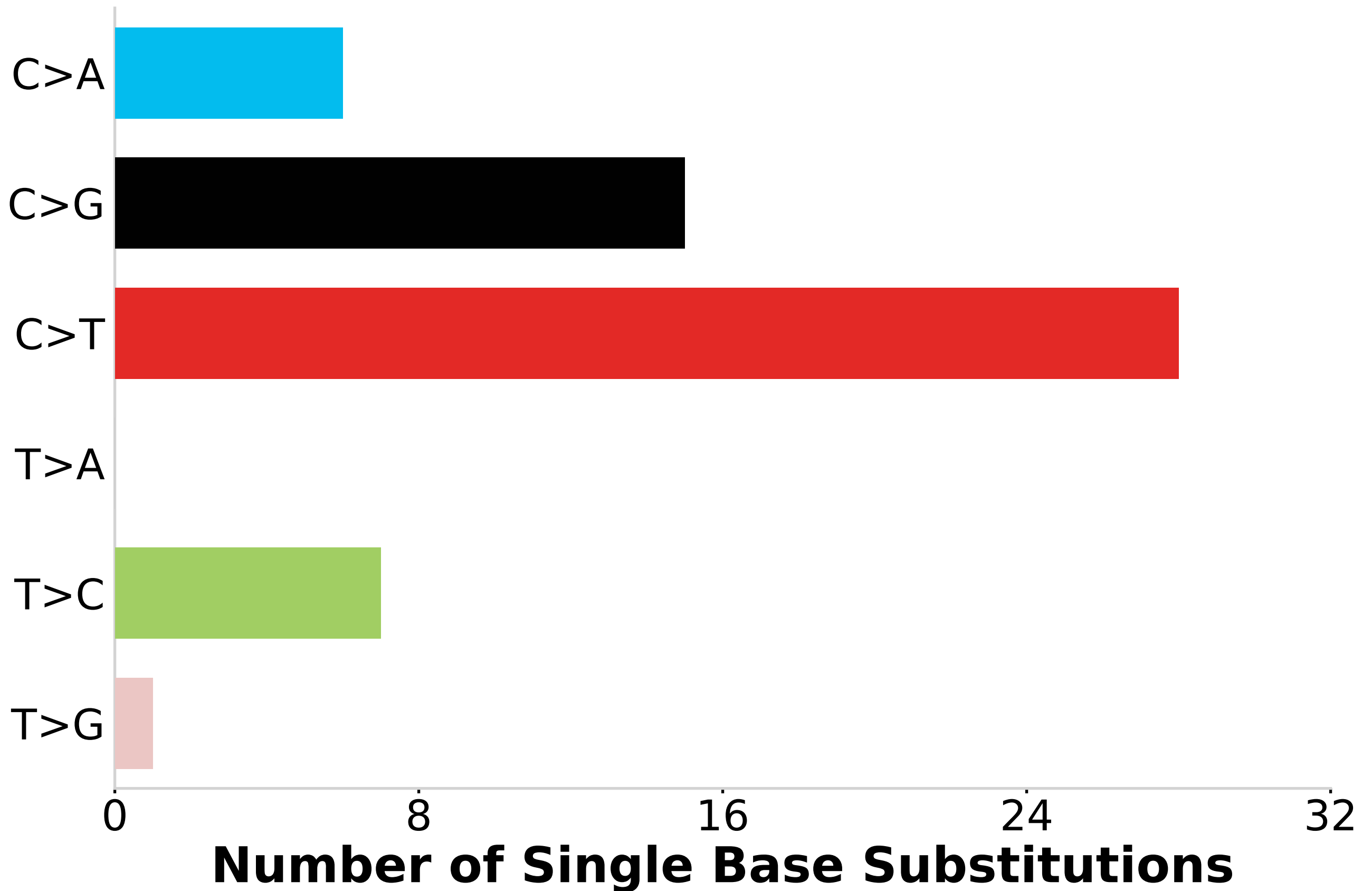
TCGA-HQ-A5NE-01A-12D-A289-08: 101 sub



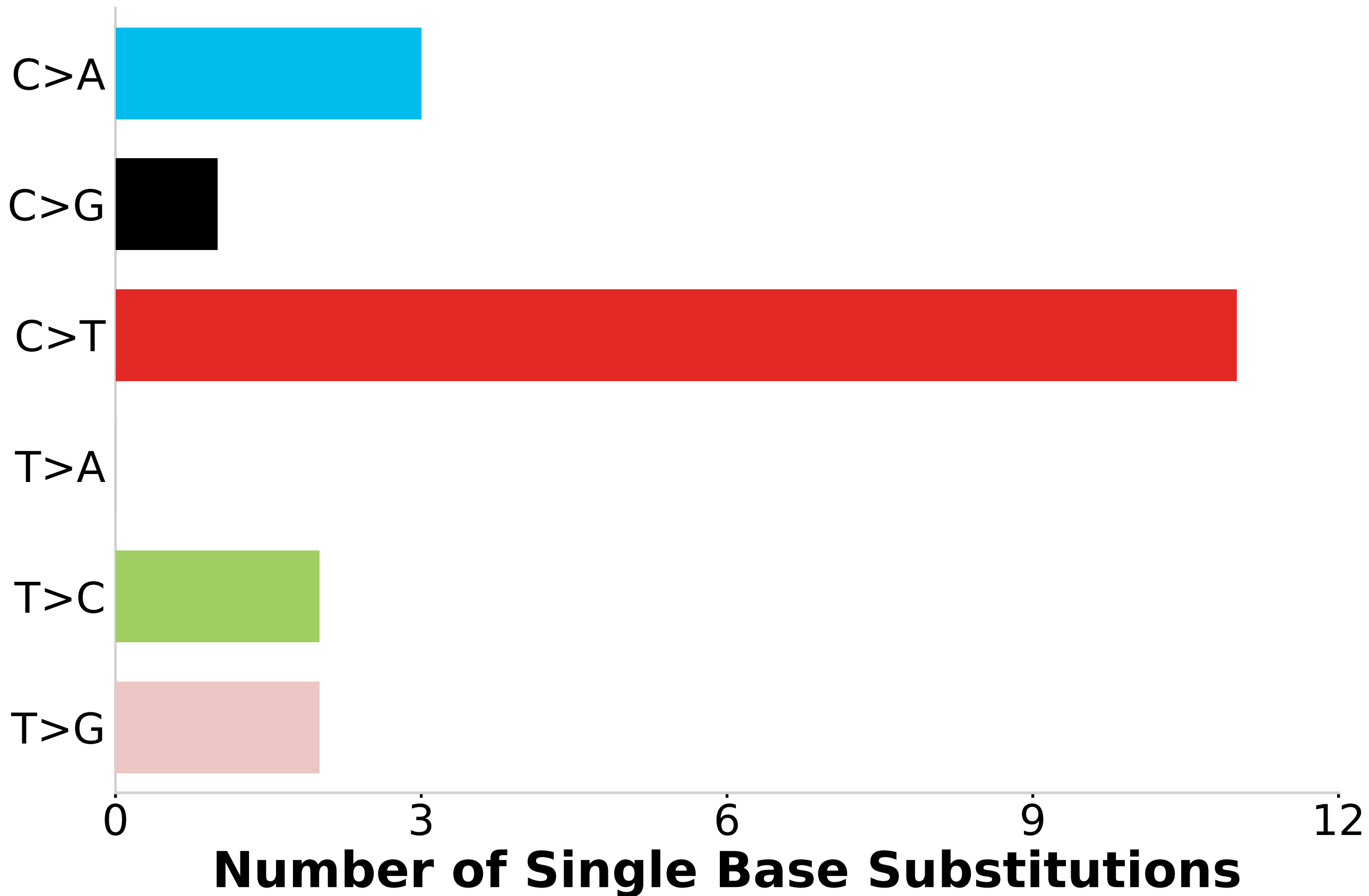
TCGA-K4-A3WS-01A-11D-A22Z-08: 78 subs



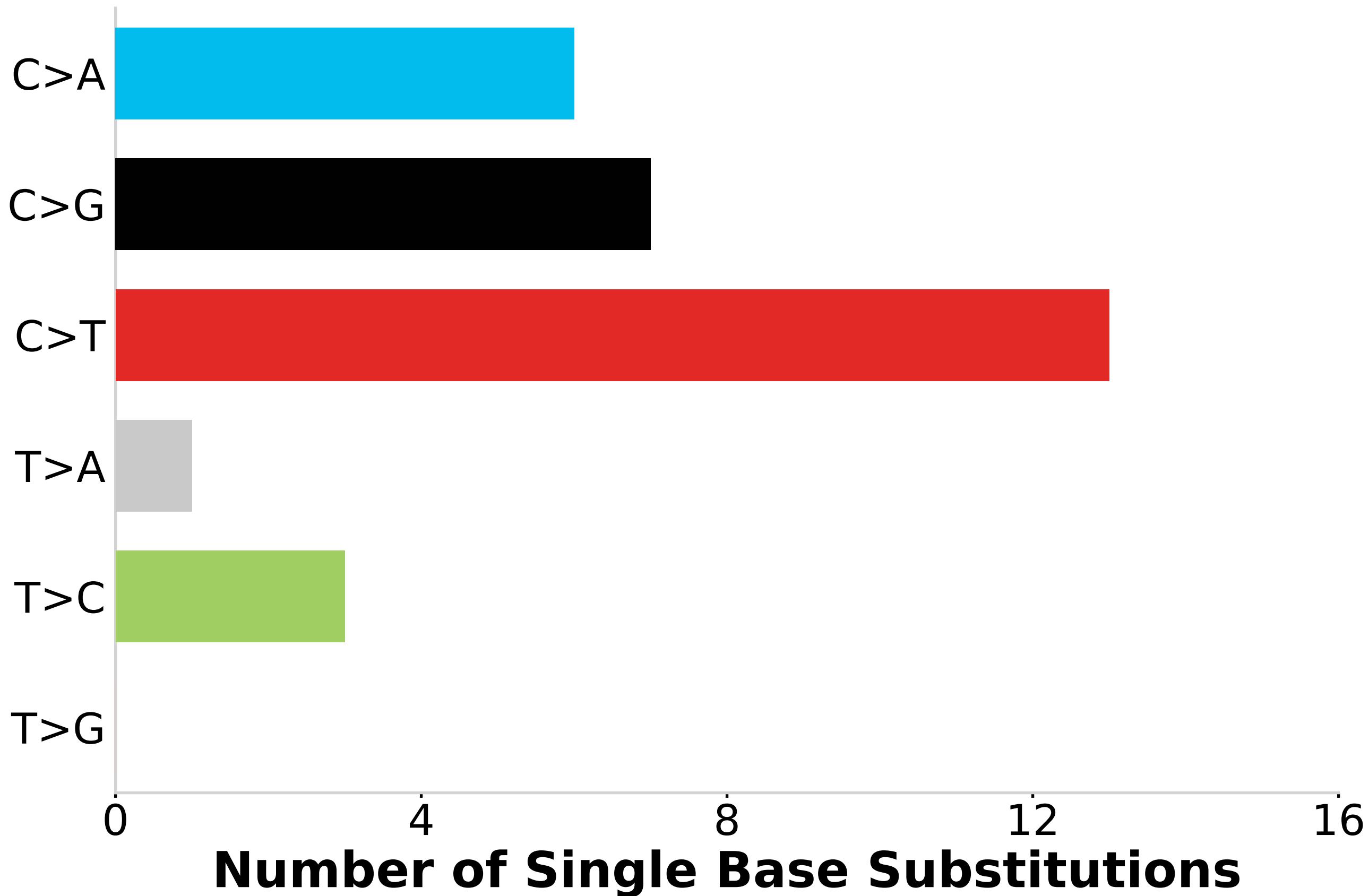
TCGA-K4-A3WU-01B-11D-A23M-08: 57 sub



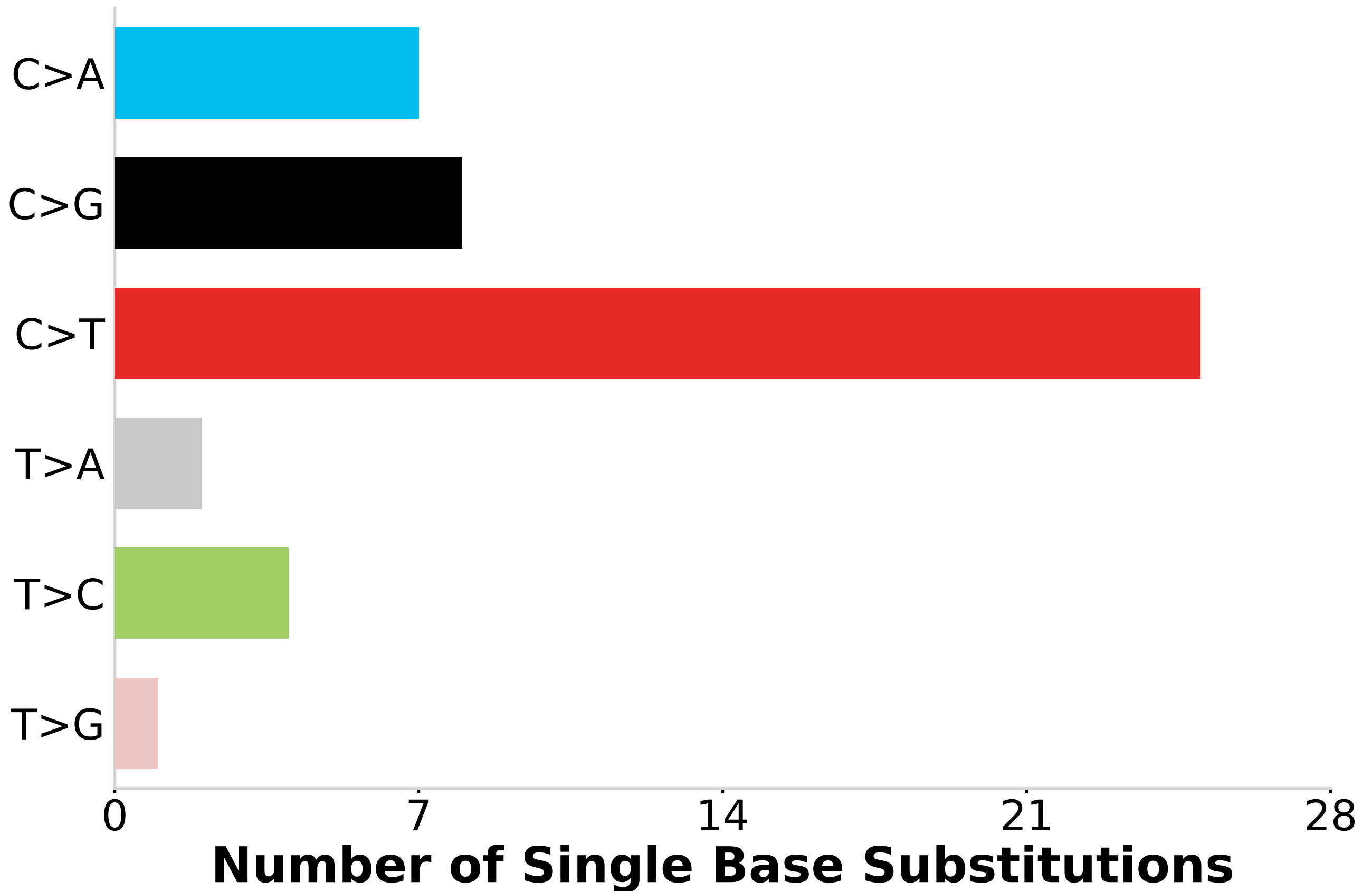
TCGA-K4-A3WV-01A-11D-A22Z-08: 19 subs



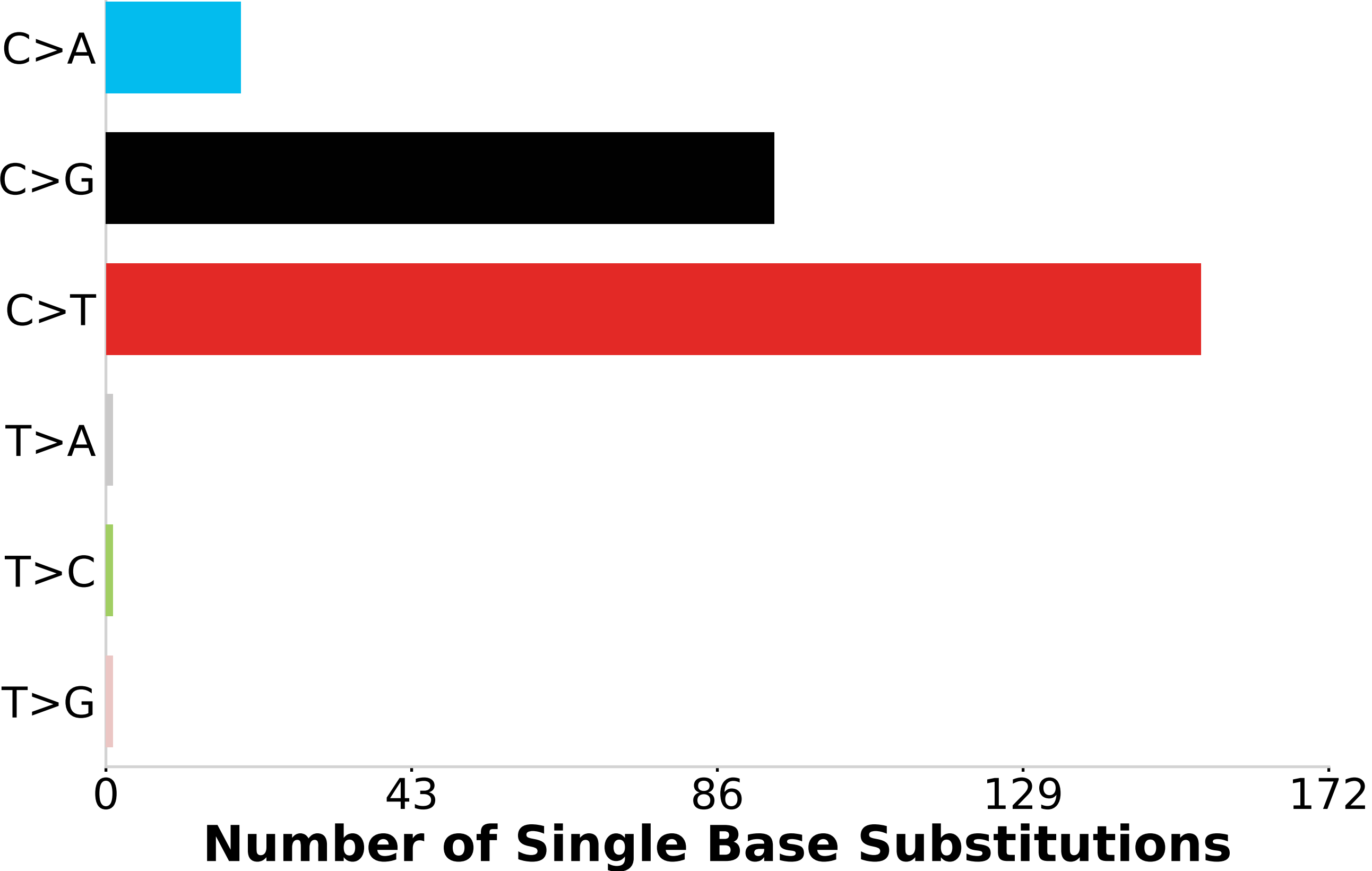
TCGA-K4-A4AB-01B-12D-A289-08: 30 subs



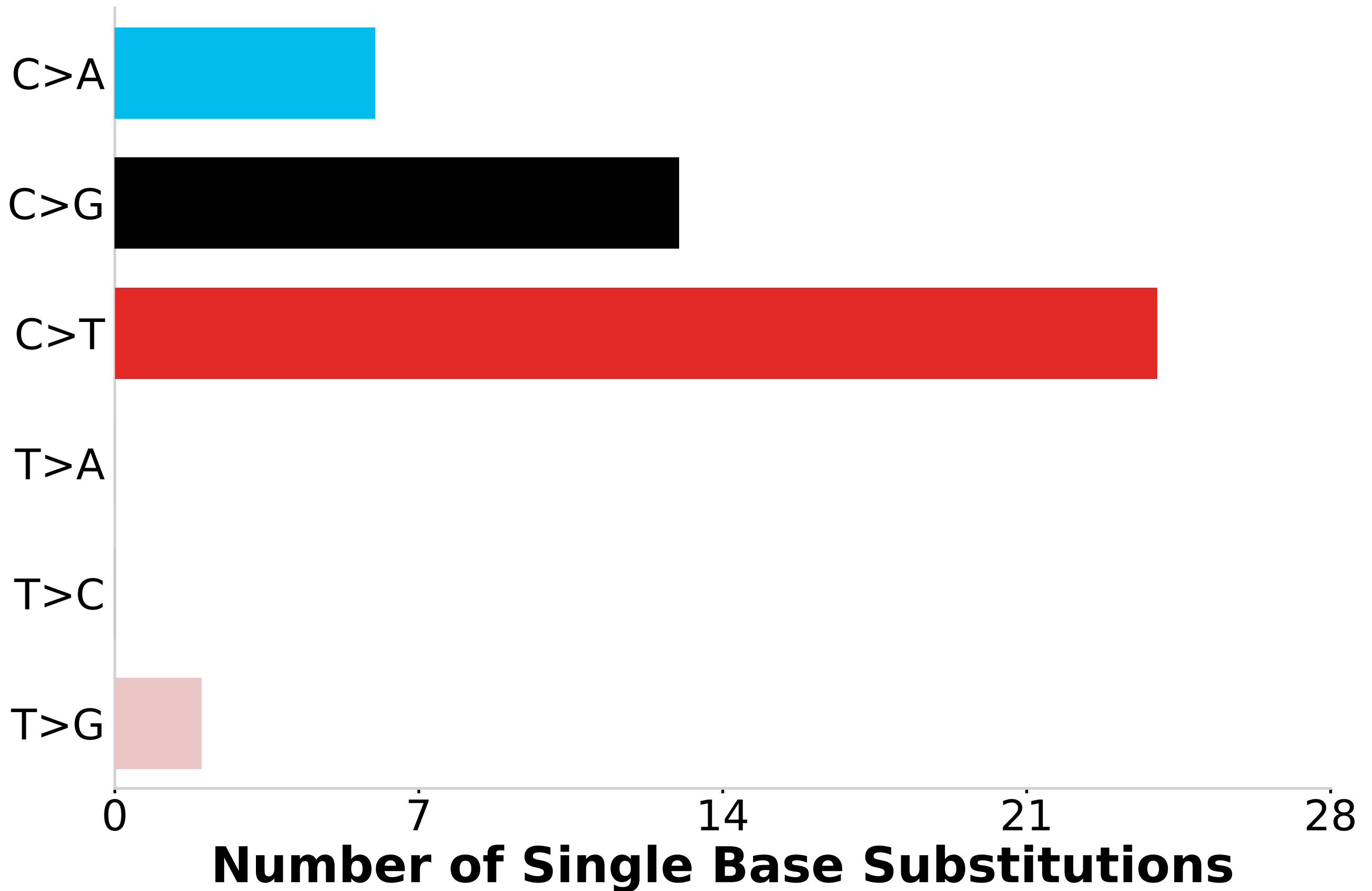
TCGA-K4-A4AC-01A-21D-A26M-08: 47 subs



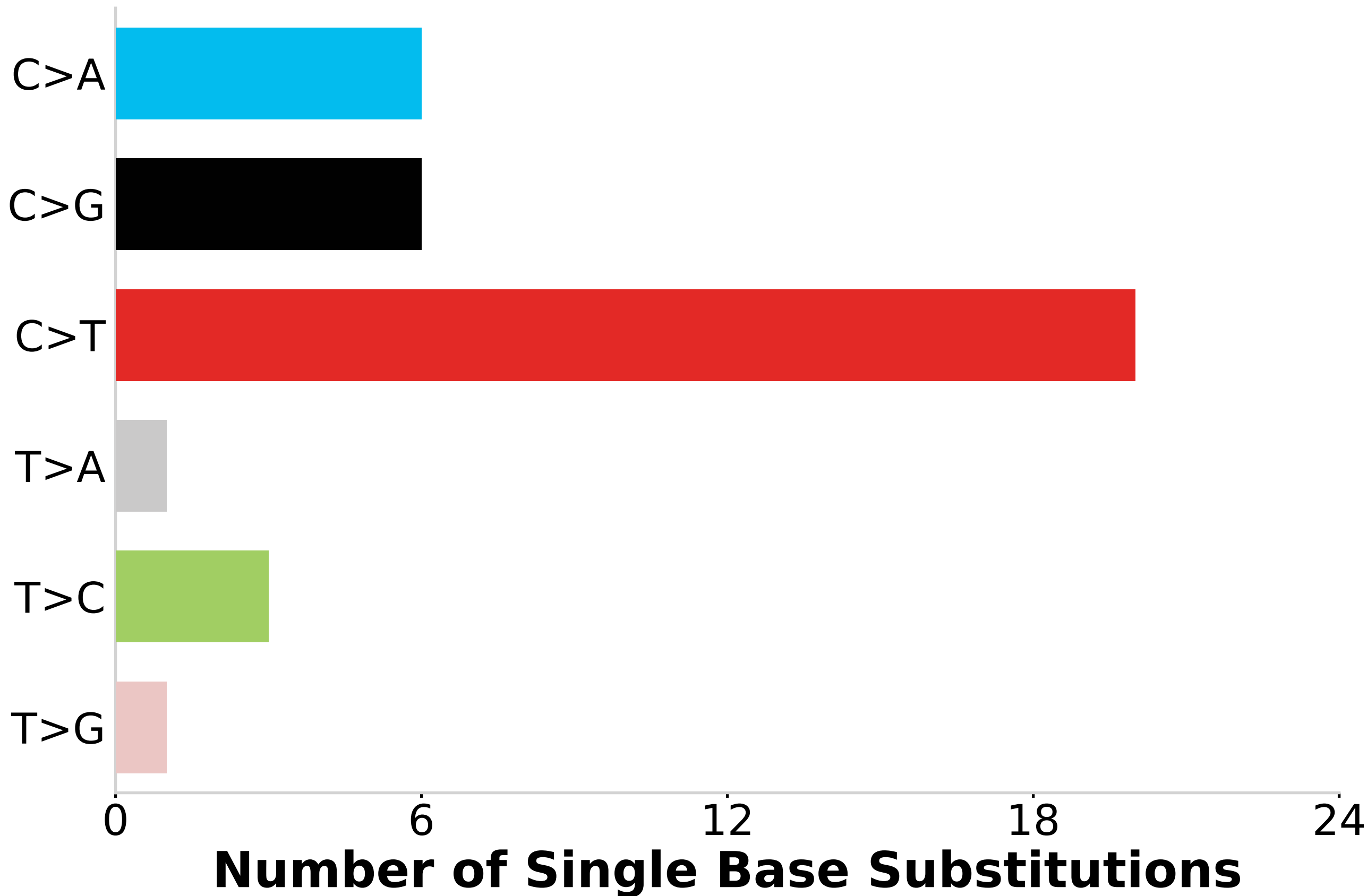
TCGA-K4-A54R-01A-11D-A26M-08: 270 sub



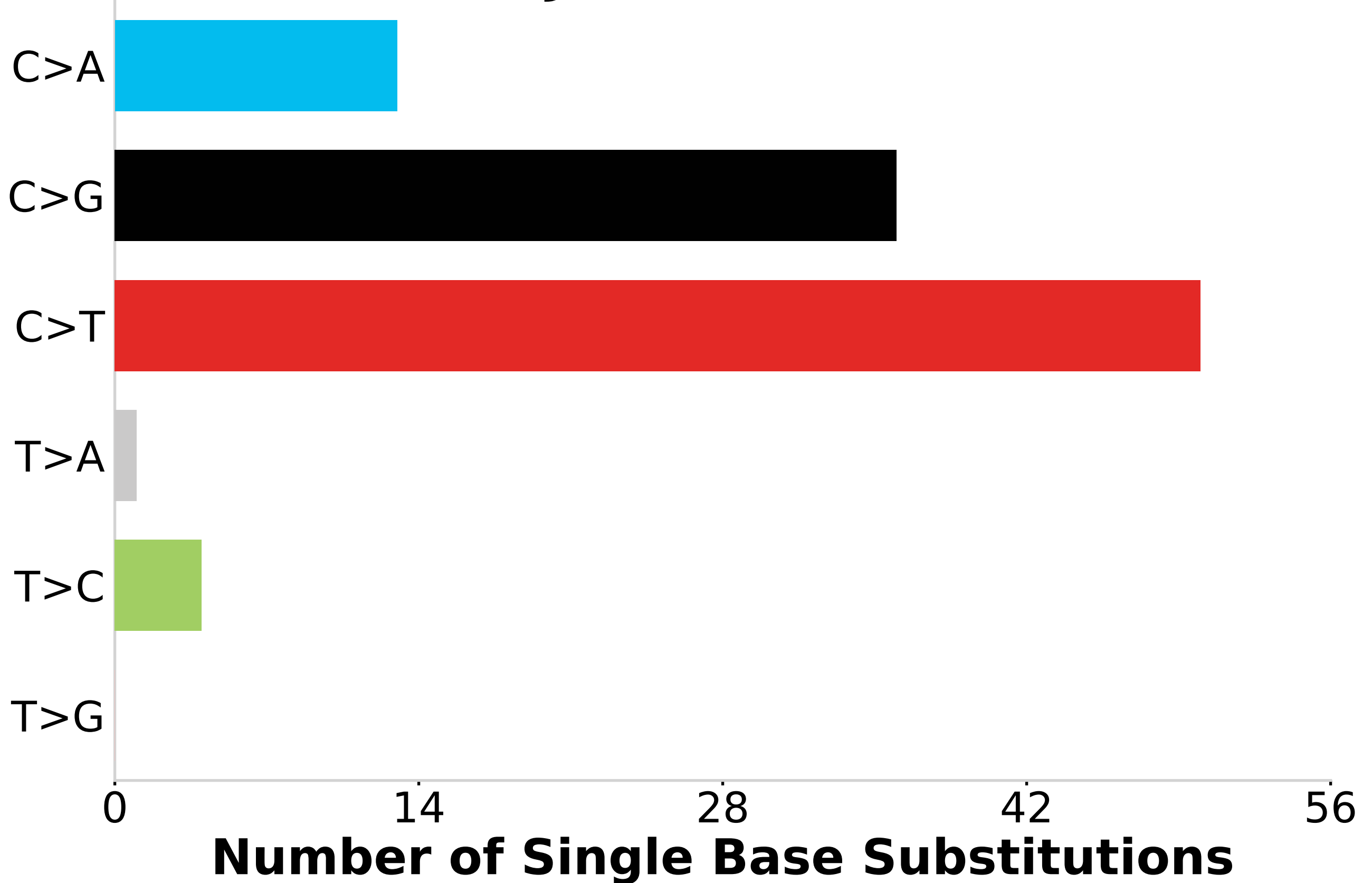
TCGA-K4-A5RH-01A-11D-A30E-08: 45 subs



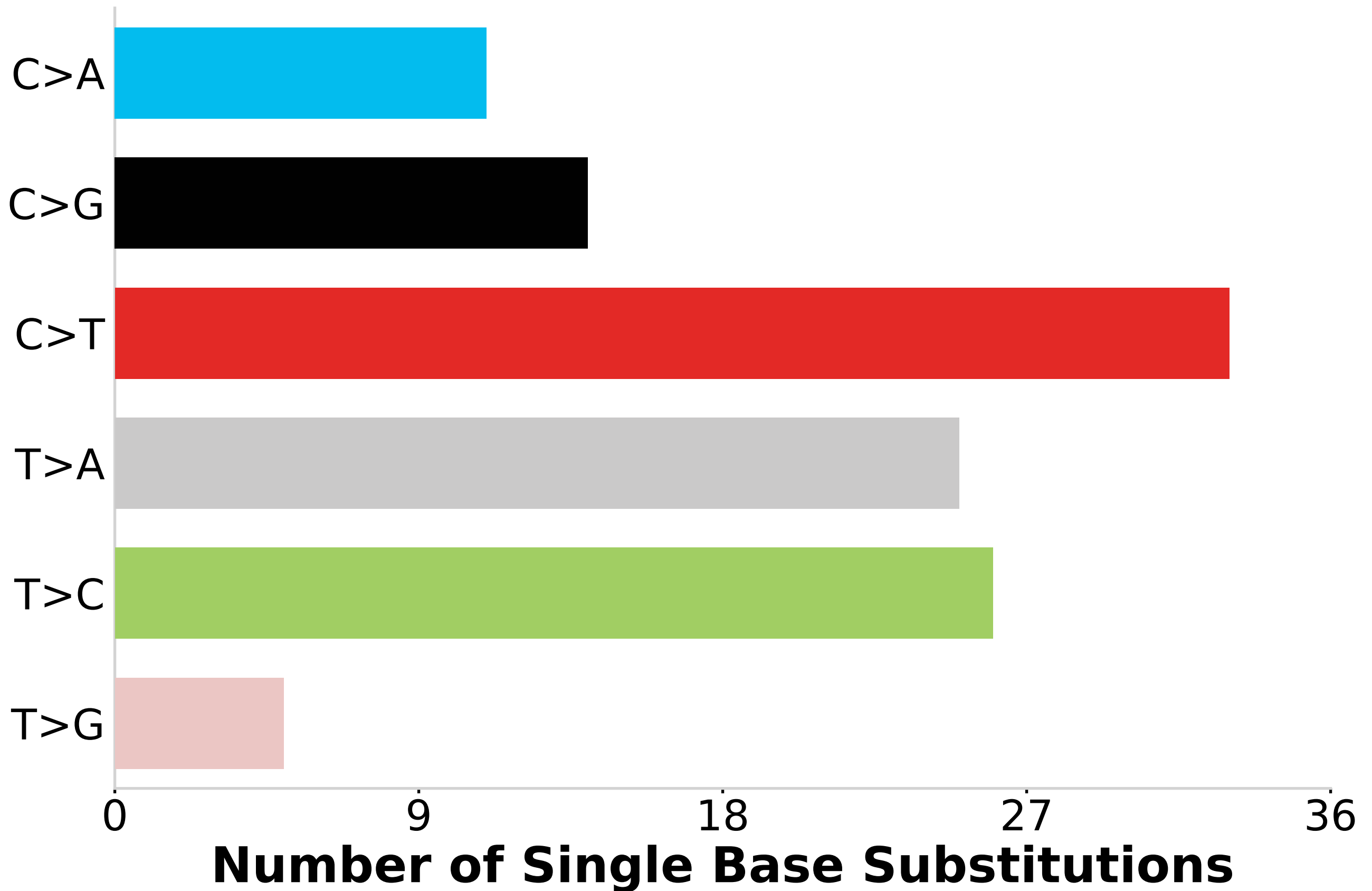
TCGA-K4-A5RI-01A-11D-A289-08: 37 subs



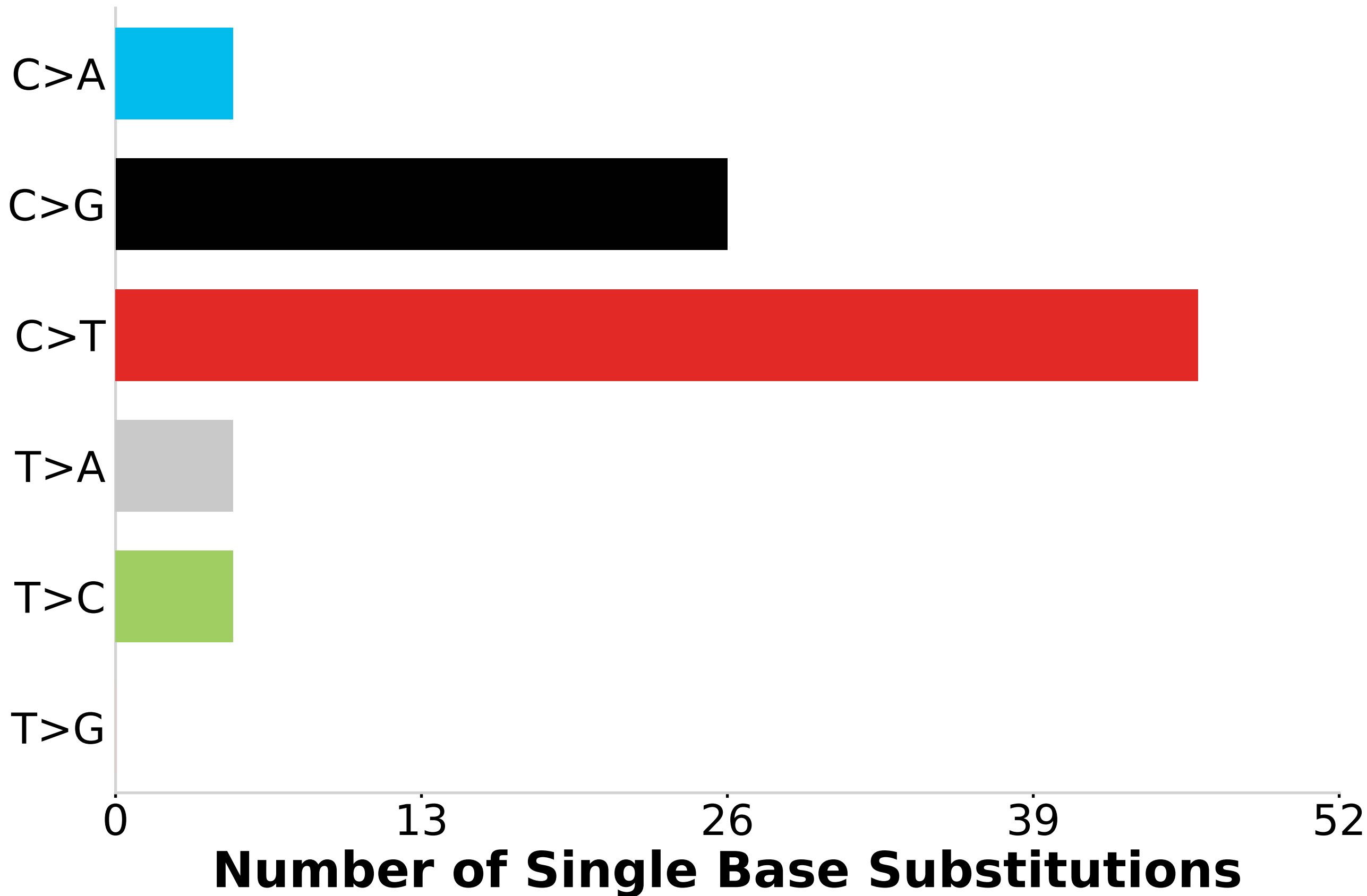
TCGA-K4-A5RJ-01A-11D-A289-08: 104 subs



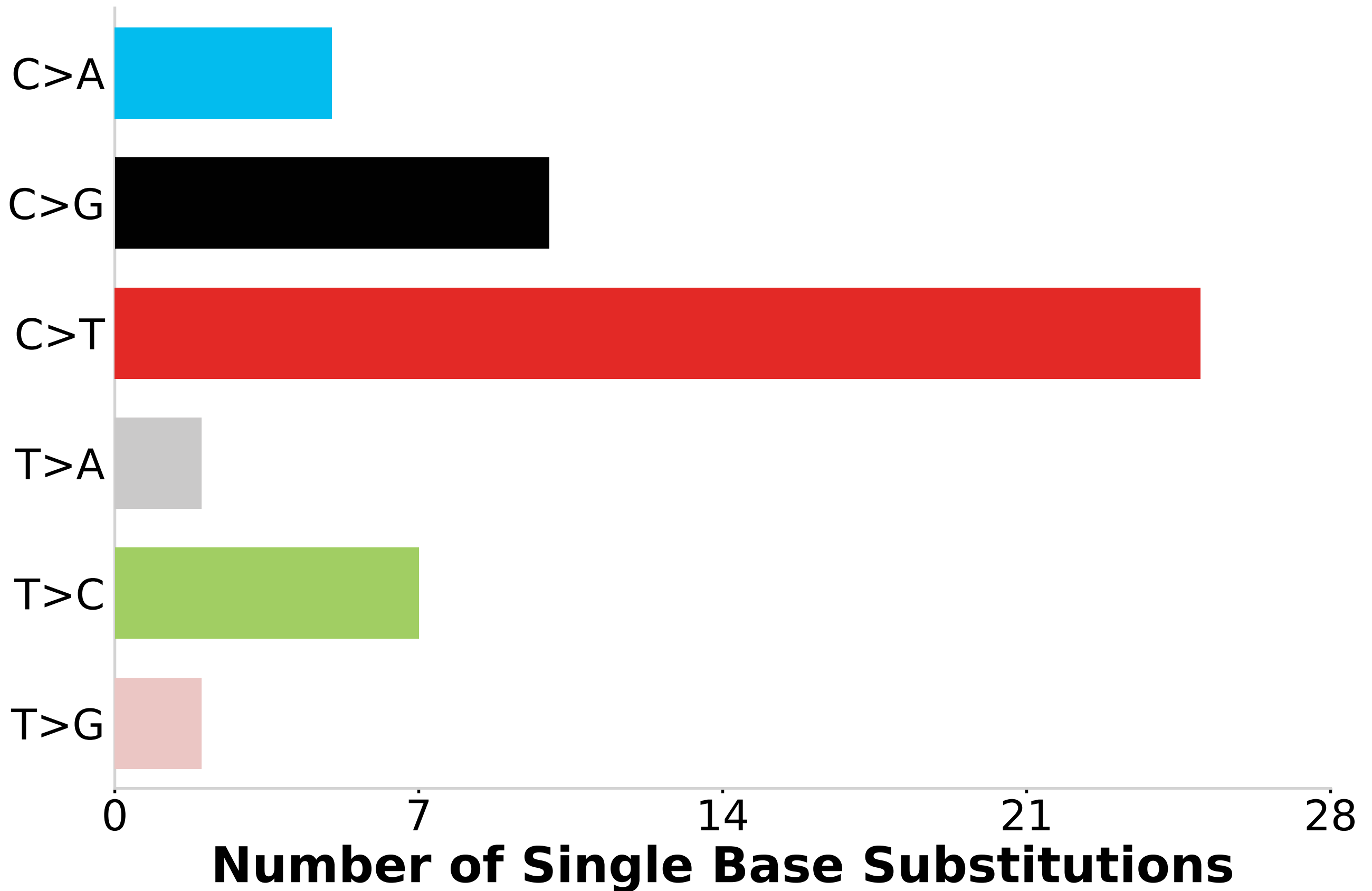
TCGA-K4-A6FZ-01A-11D-A31L-08: 114 sub



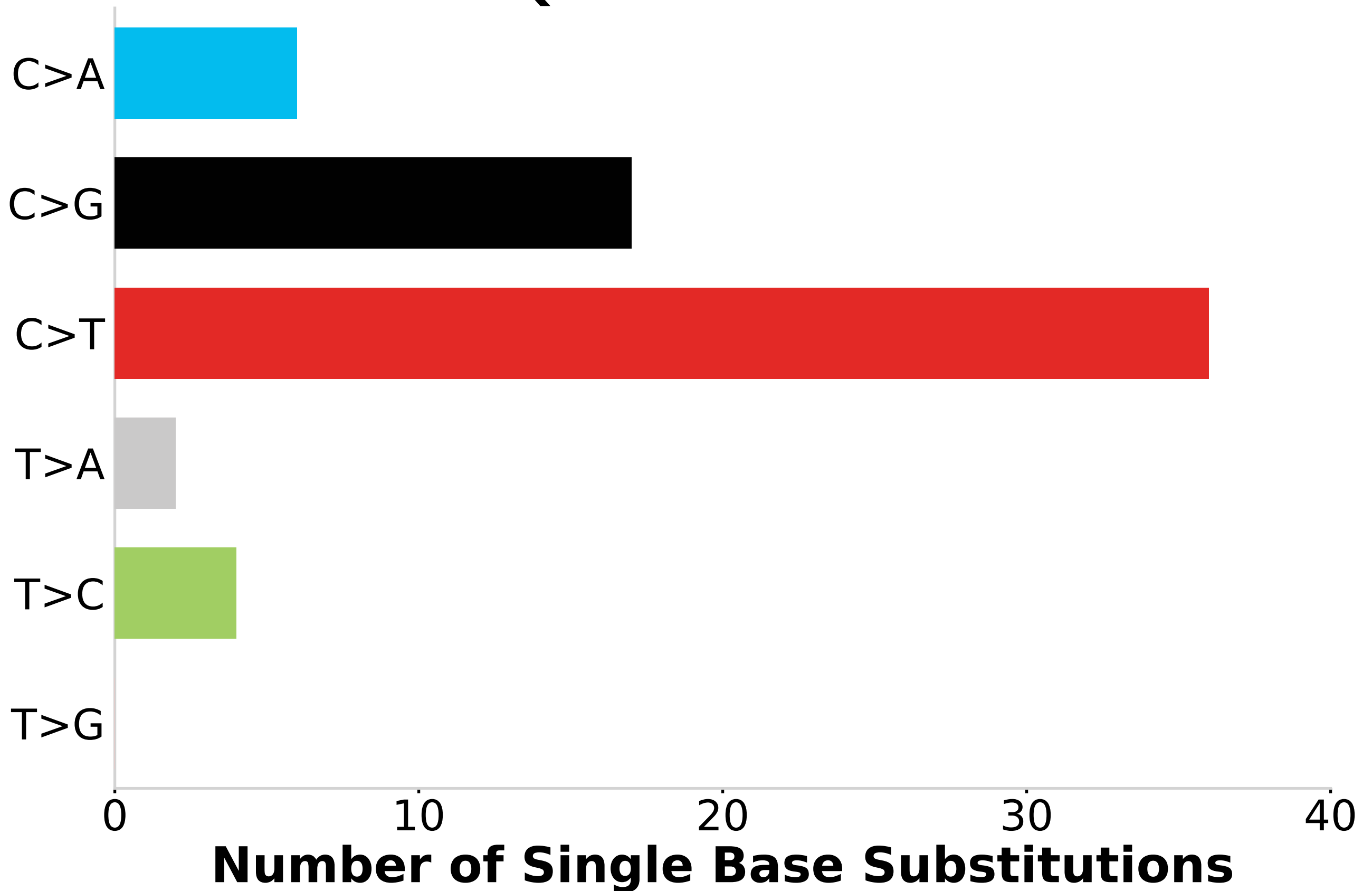
TCGA-K4-A6MB-01A-11D-A31L-08: 87 subs



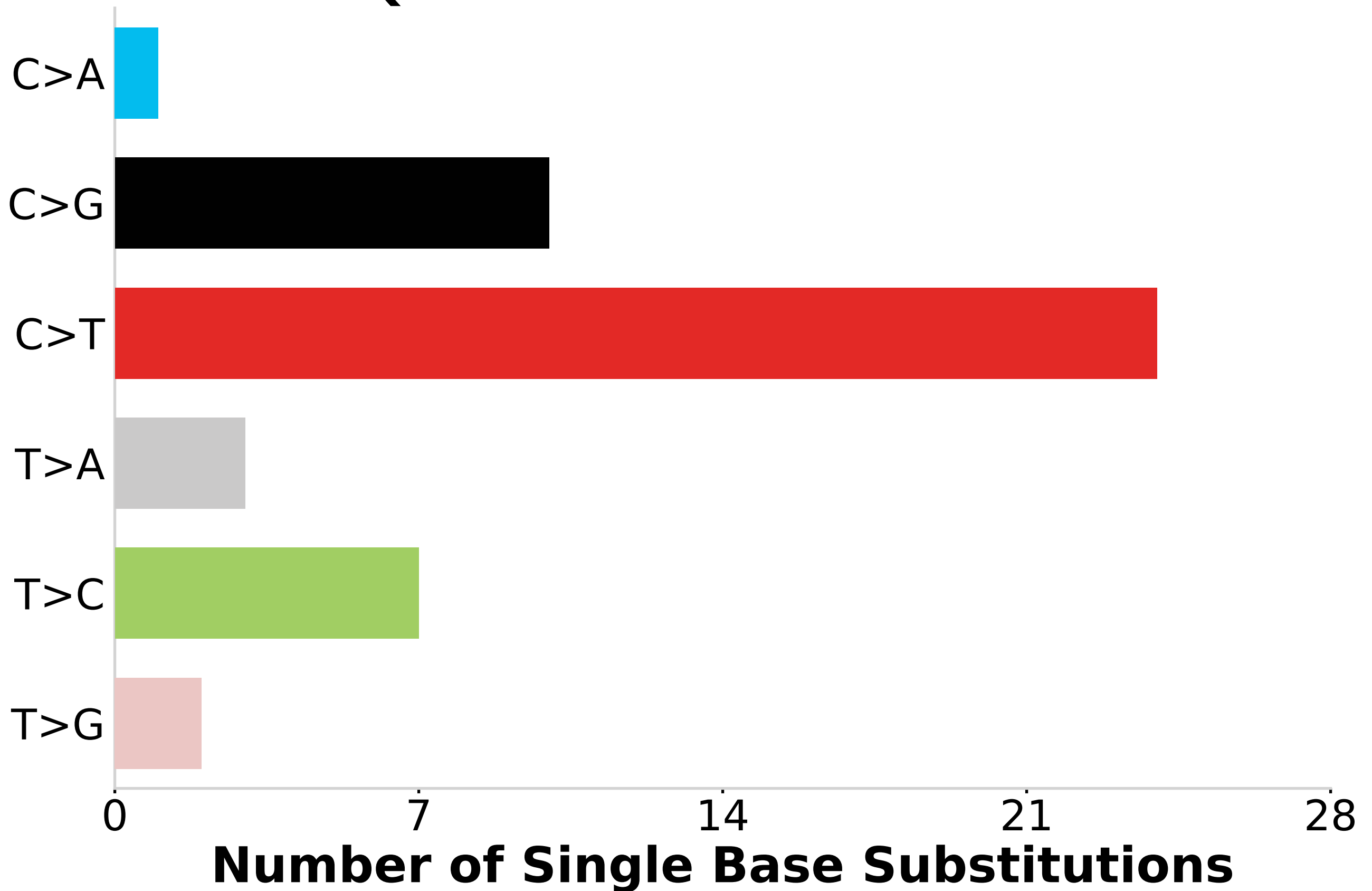
TCGA-K4-A83P-01A-11D-A34U-08: 51 subs



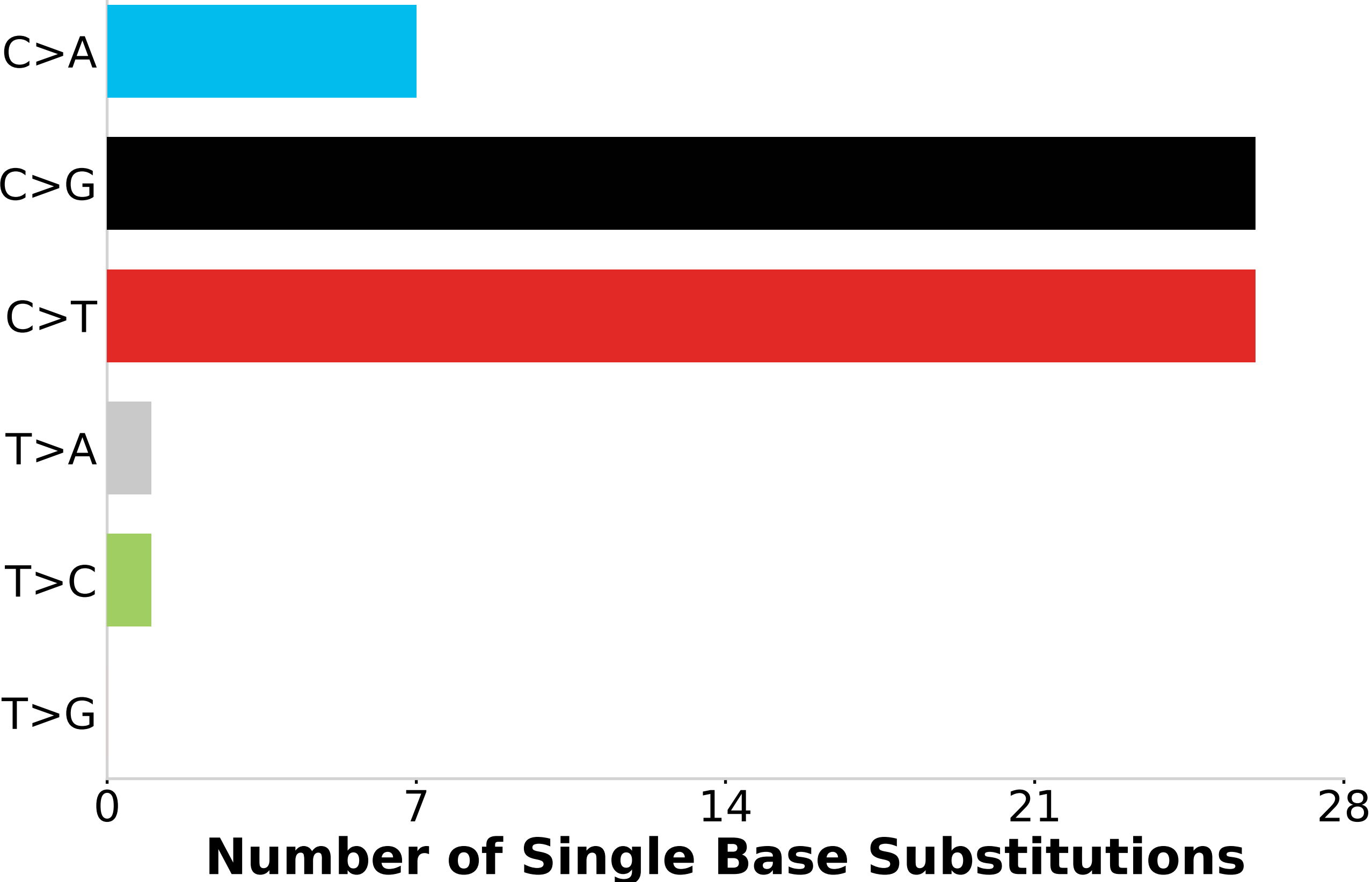
TCGA-K4-AAQO-01A-11D-A38G-08: 65 sub



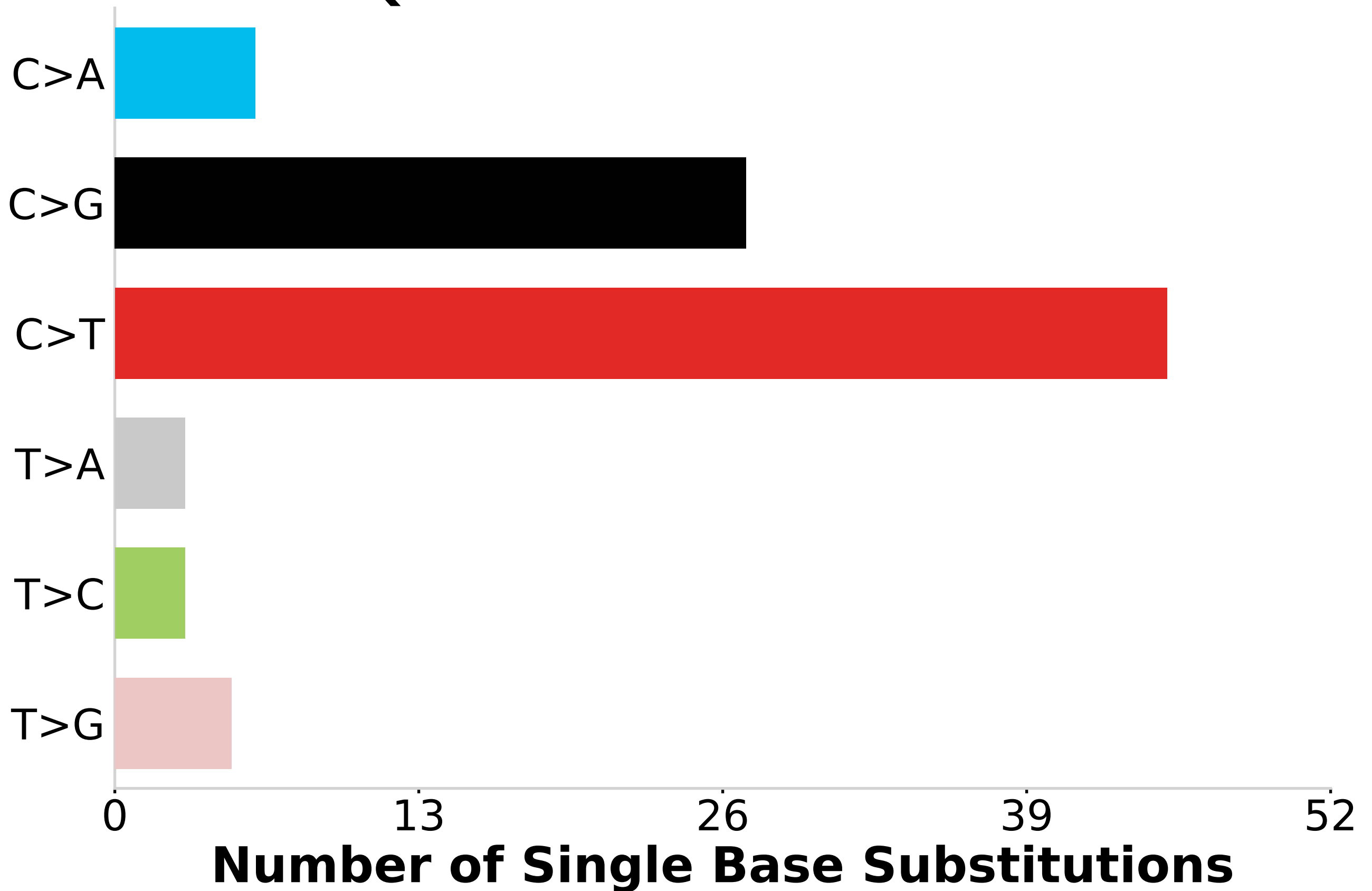
TCGA-KQ-A41N-01A-11D-A339-08: 47 subs



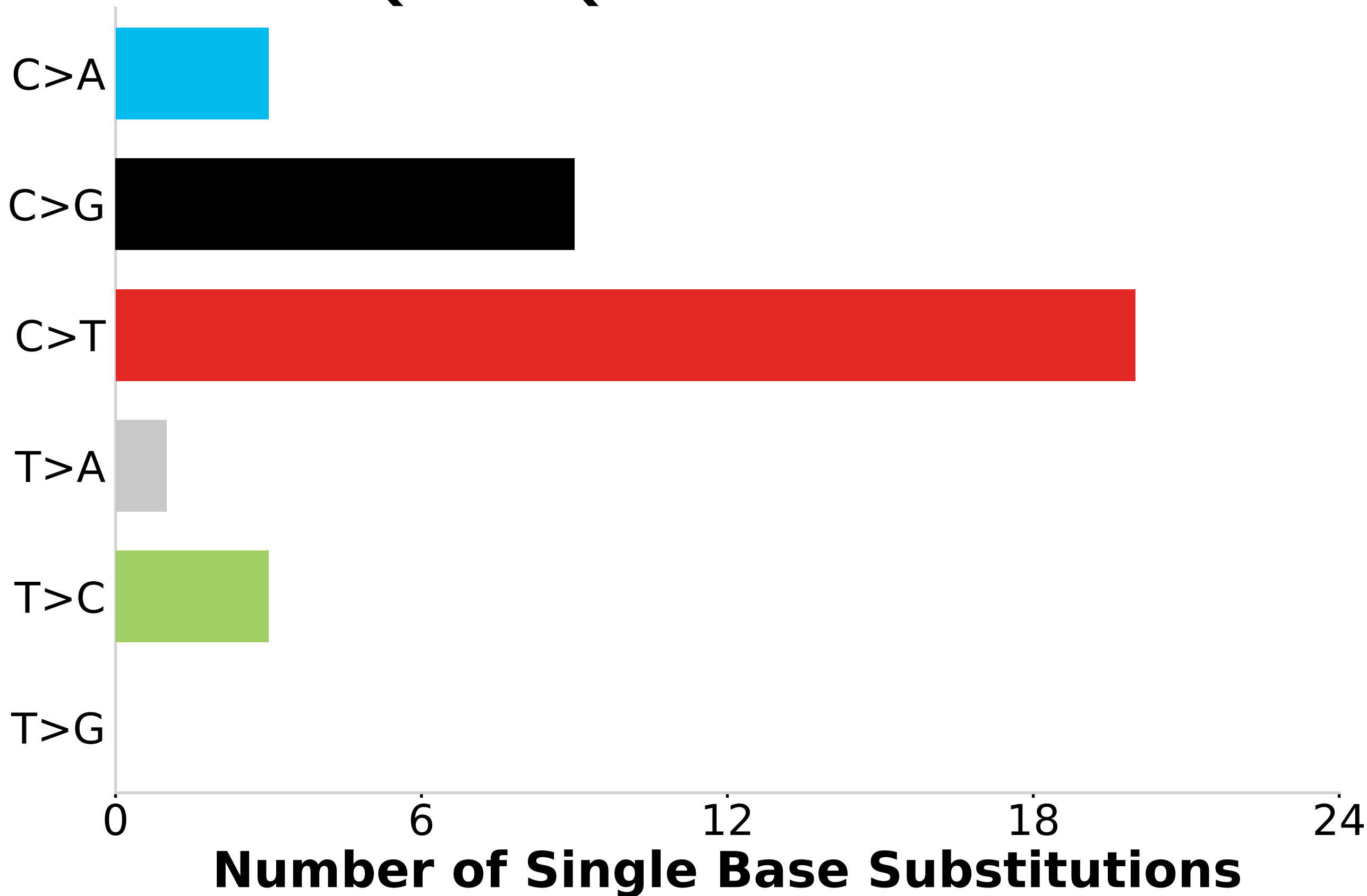
TCGA-KQ-A410-01A-12D-A34U-08: 61 subs



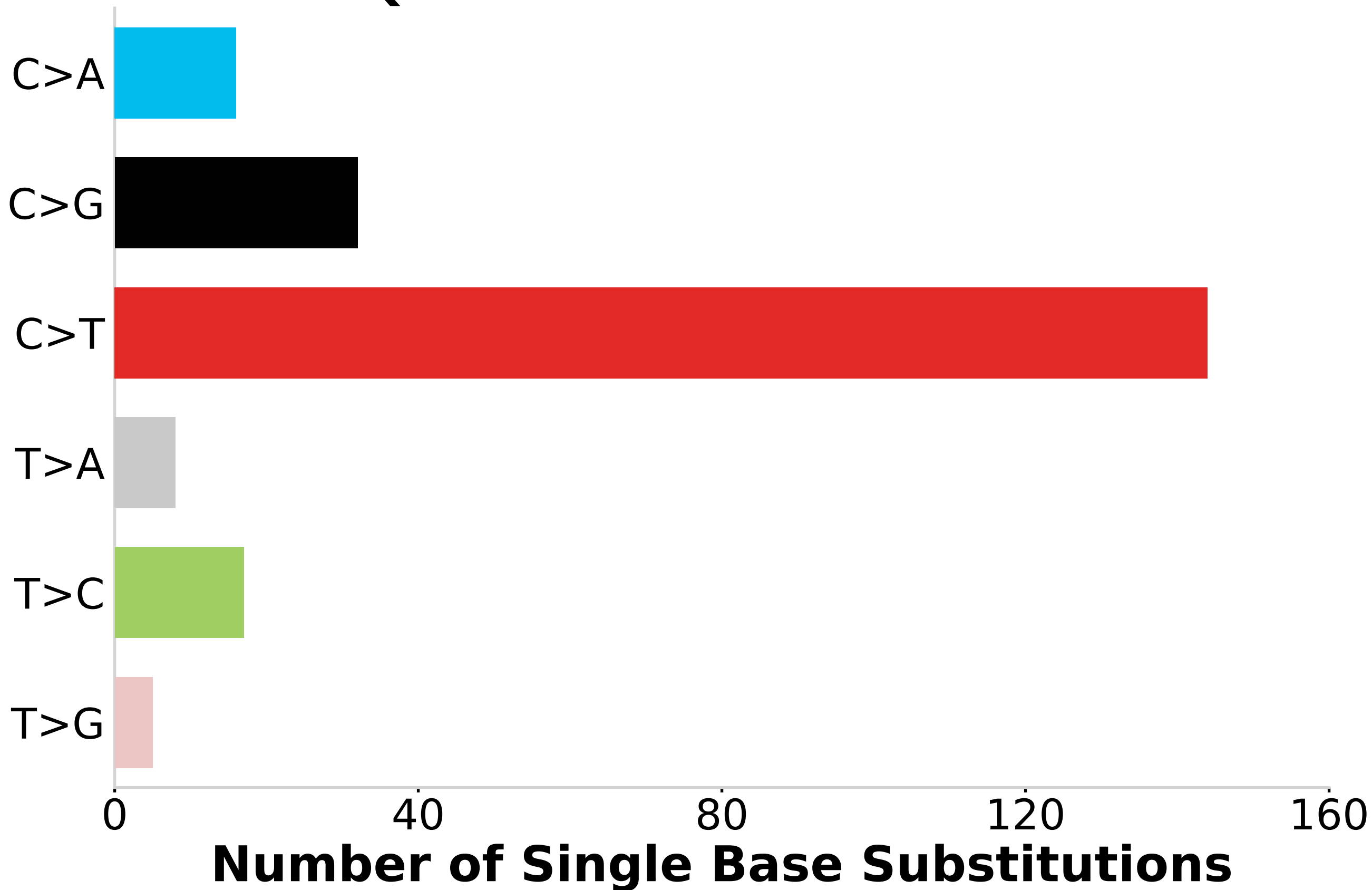
TCGA-KQ-A41P-01A-12D-A339-08: 89 subs



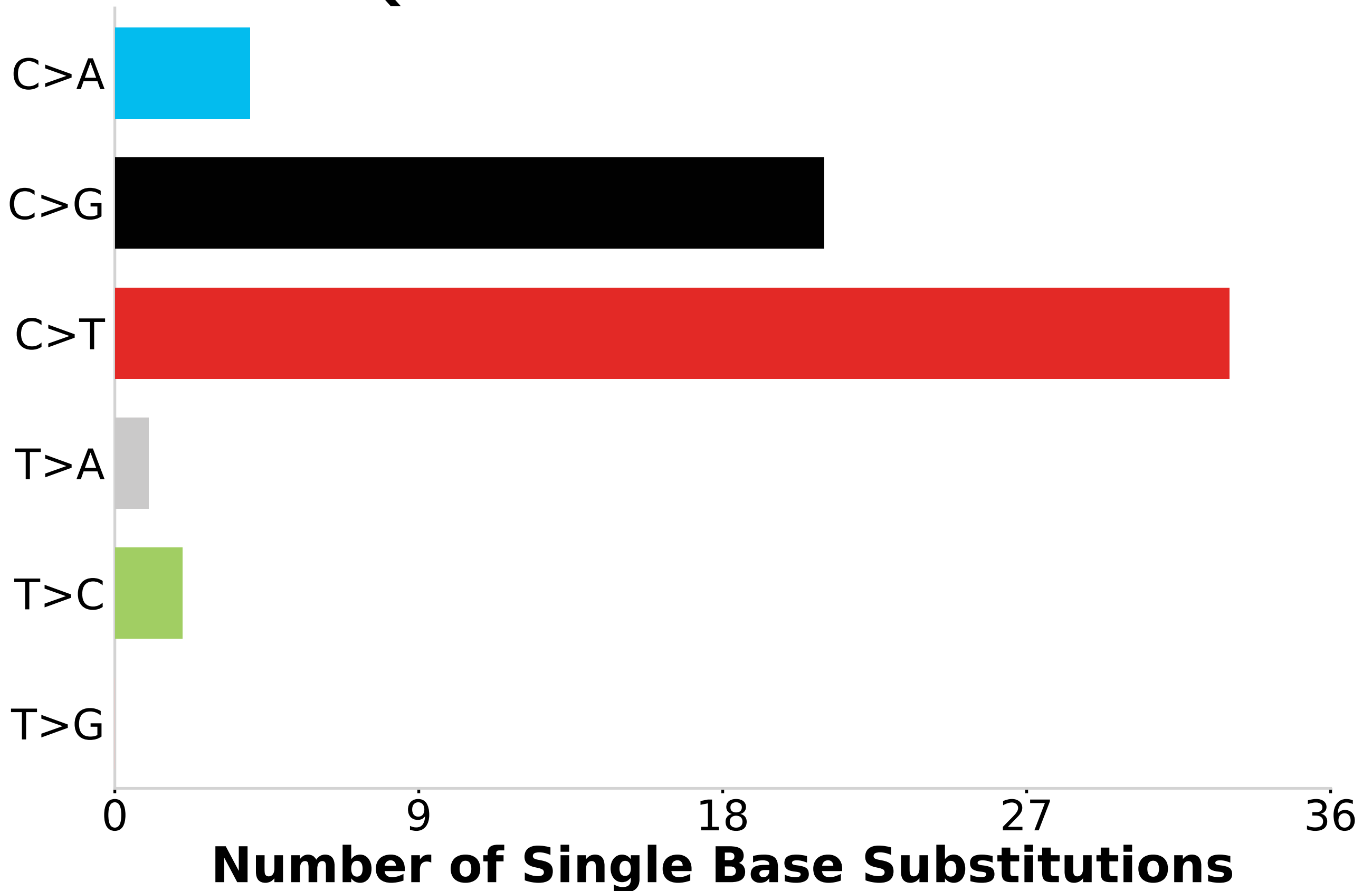
TCGA-KQ-A41Q-01A-11D-A339-08: 36 subs



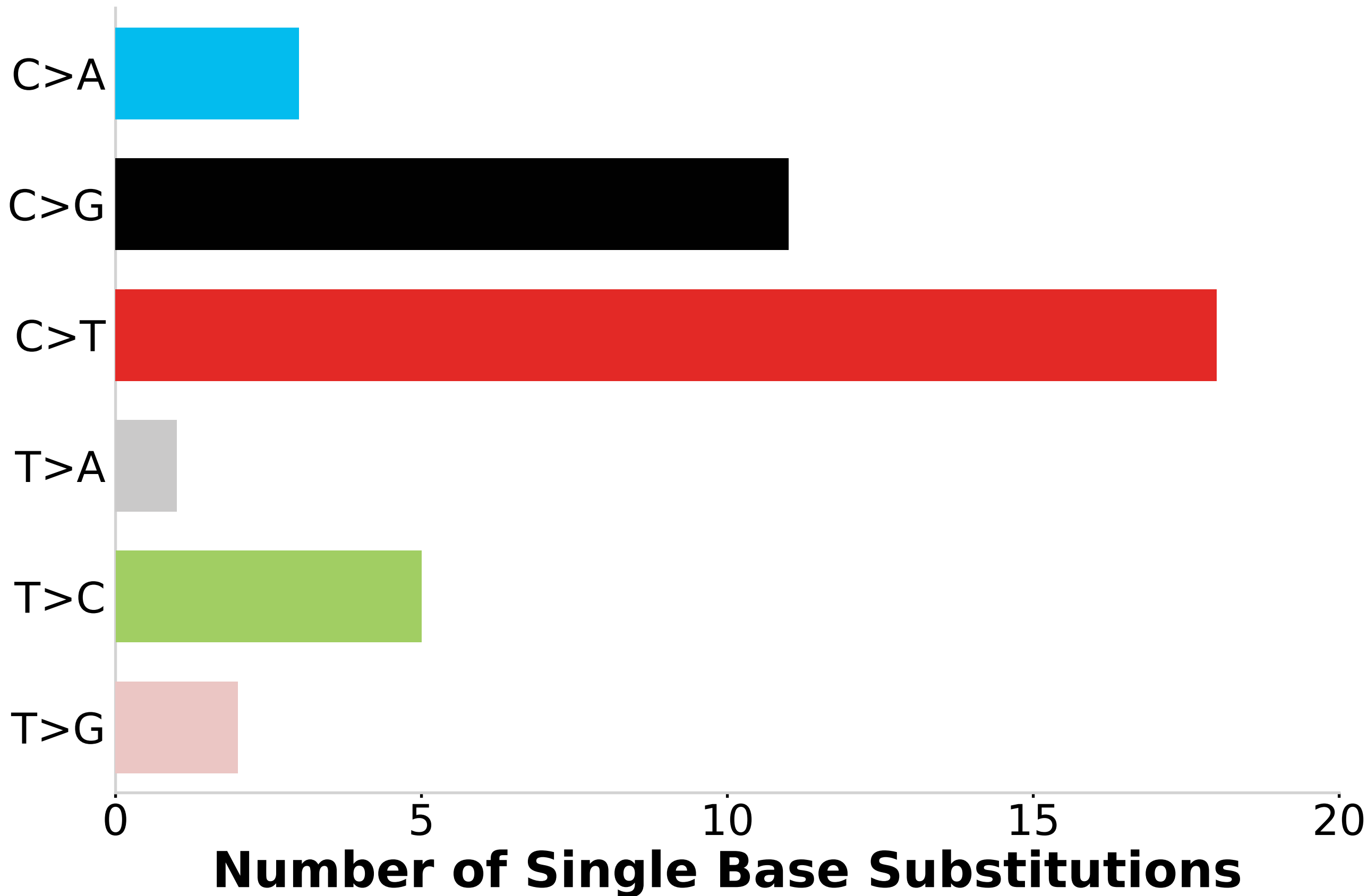
TCGA-KQ-A41R-01A-21D-A34U-08: 222 sub



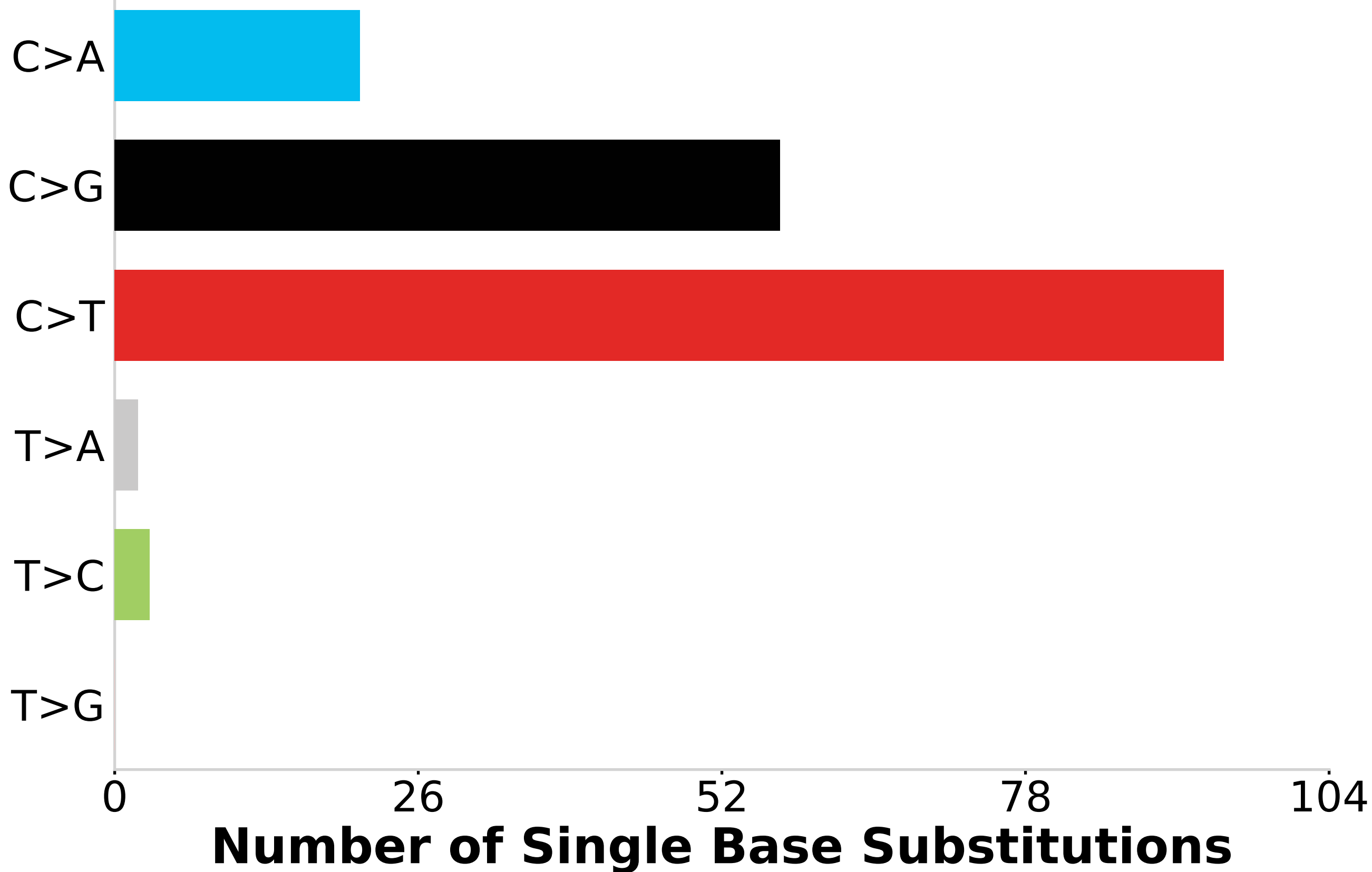
TCGA-KQ-A41S-01A-12D-A339-08: 61 subs



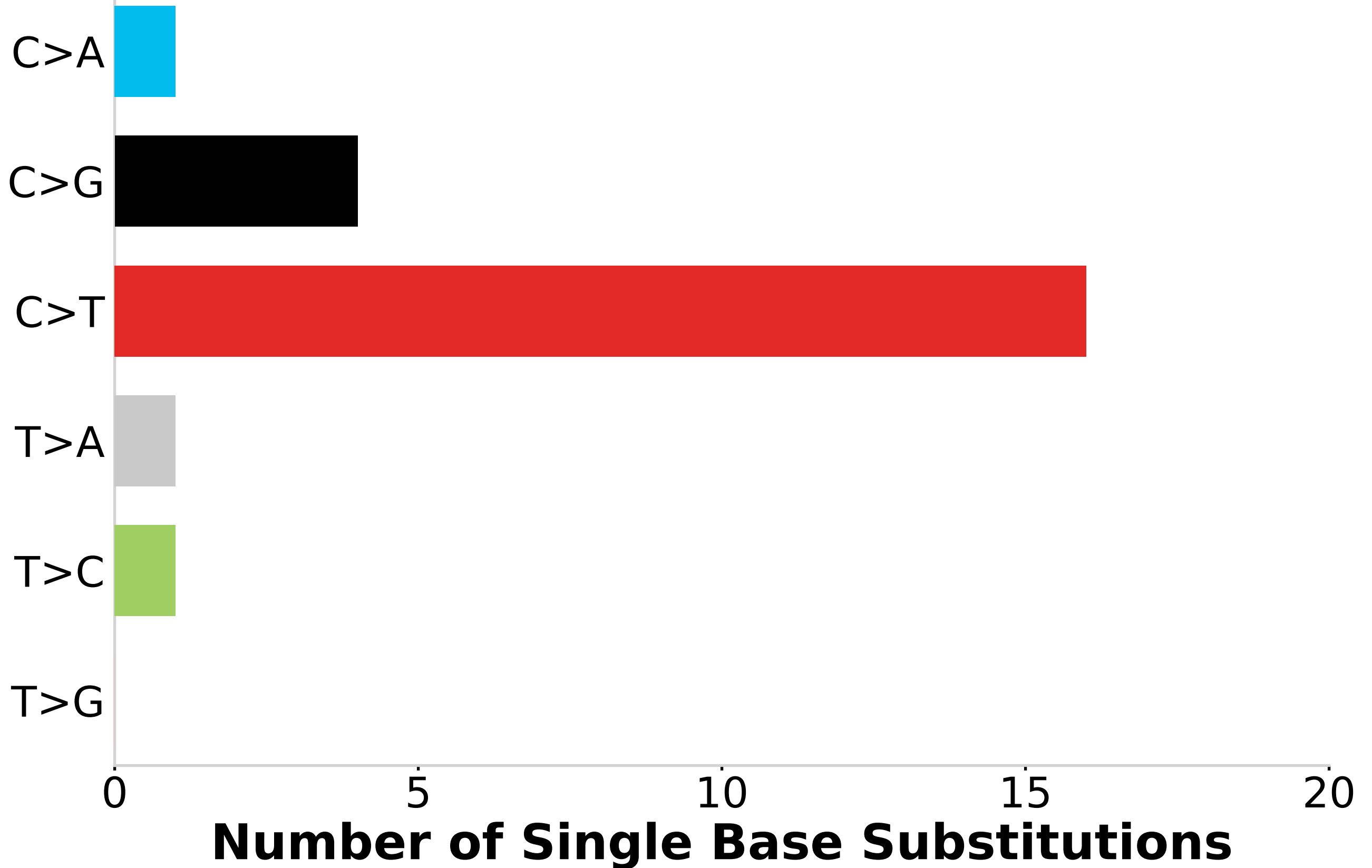
TCGA-LC-A66R-01A-41D-A30E-08: 40 subs



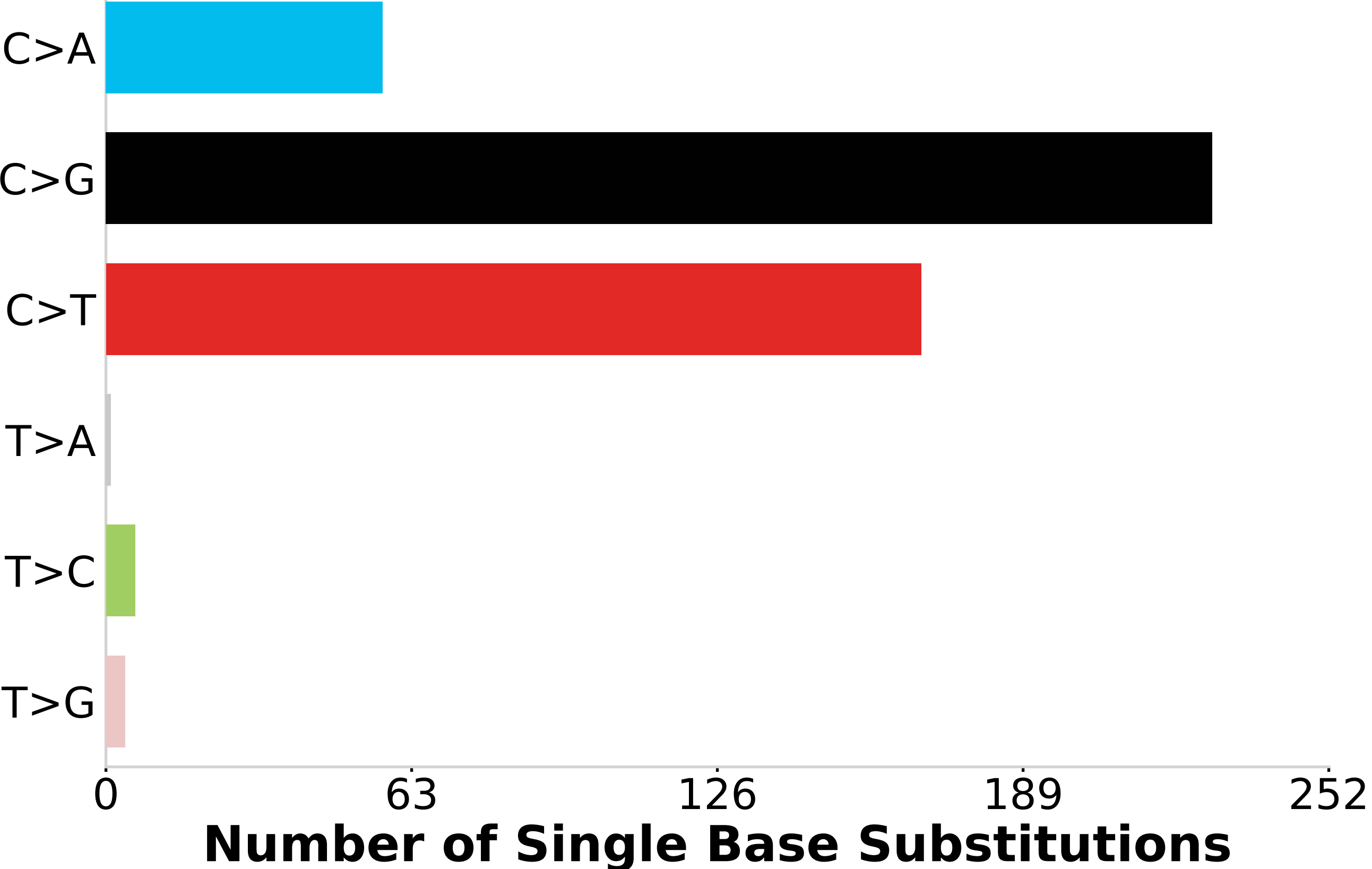
TCGA-LT-A5Z6-01A-11D-A289-08: 178 subs



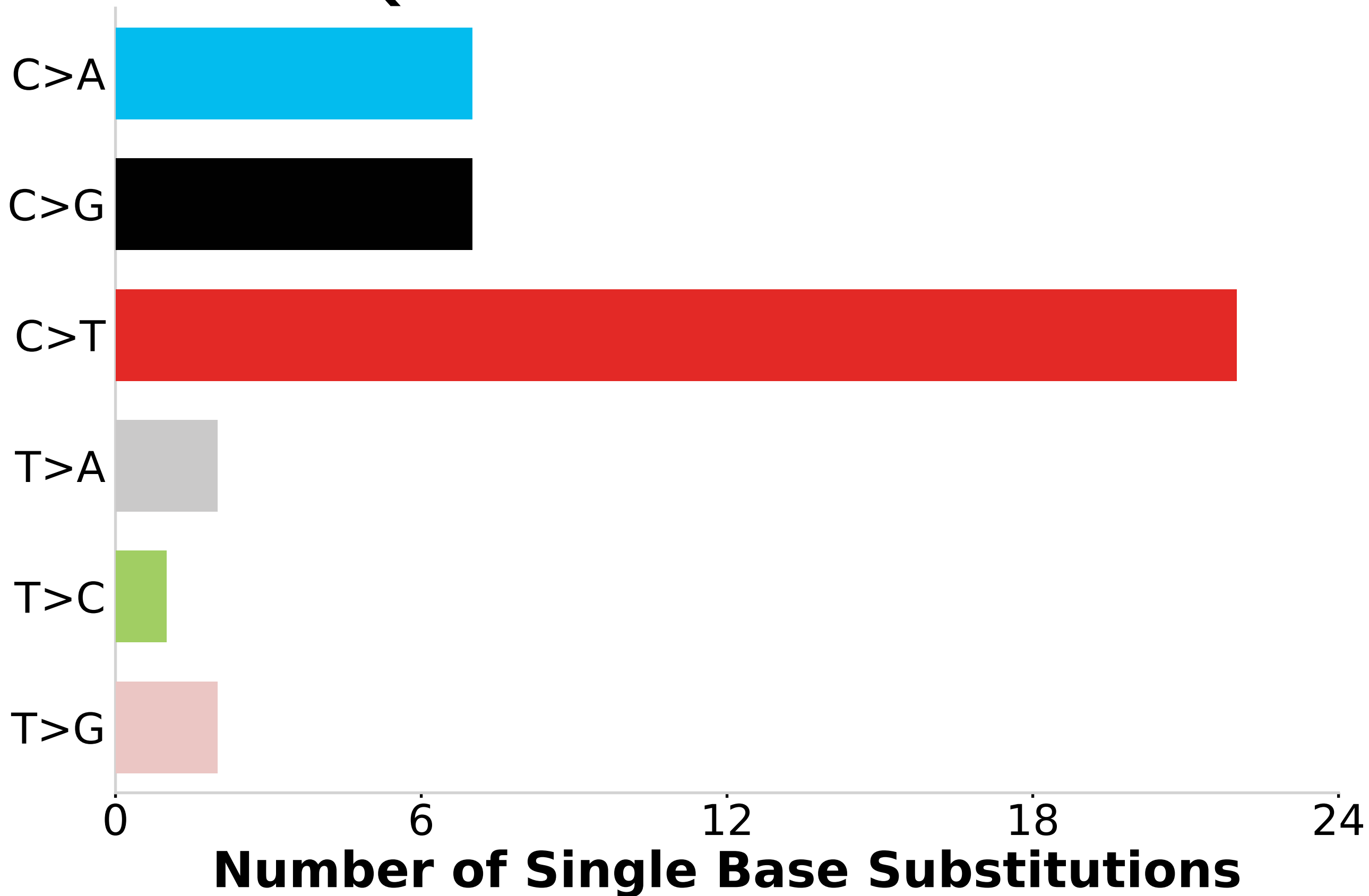
TCGA-LT-A8JT-01A-11D-A364-08: 23 subs



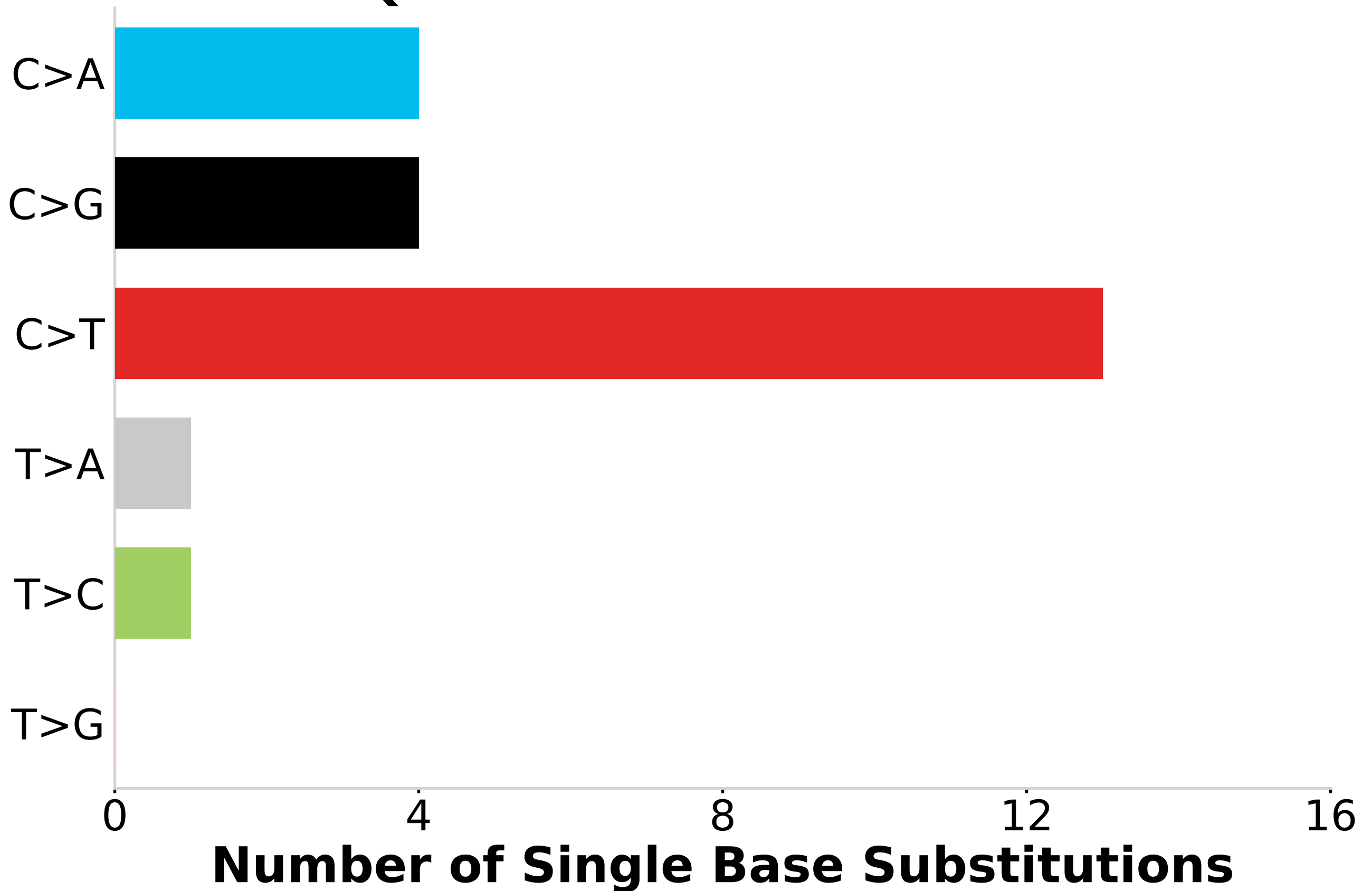
TCGA-MV-A51V-01A-11D-A26M-08: 464 substitutions



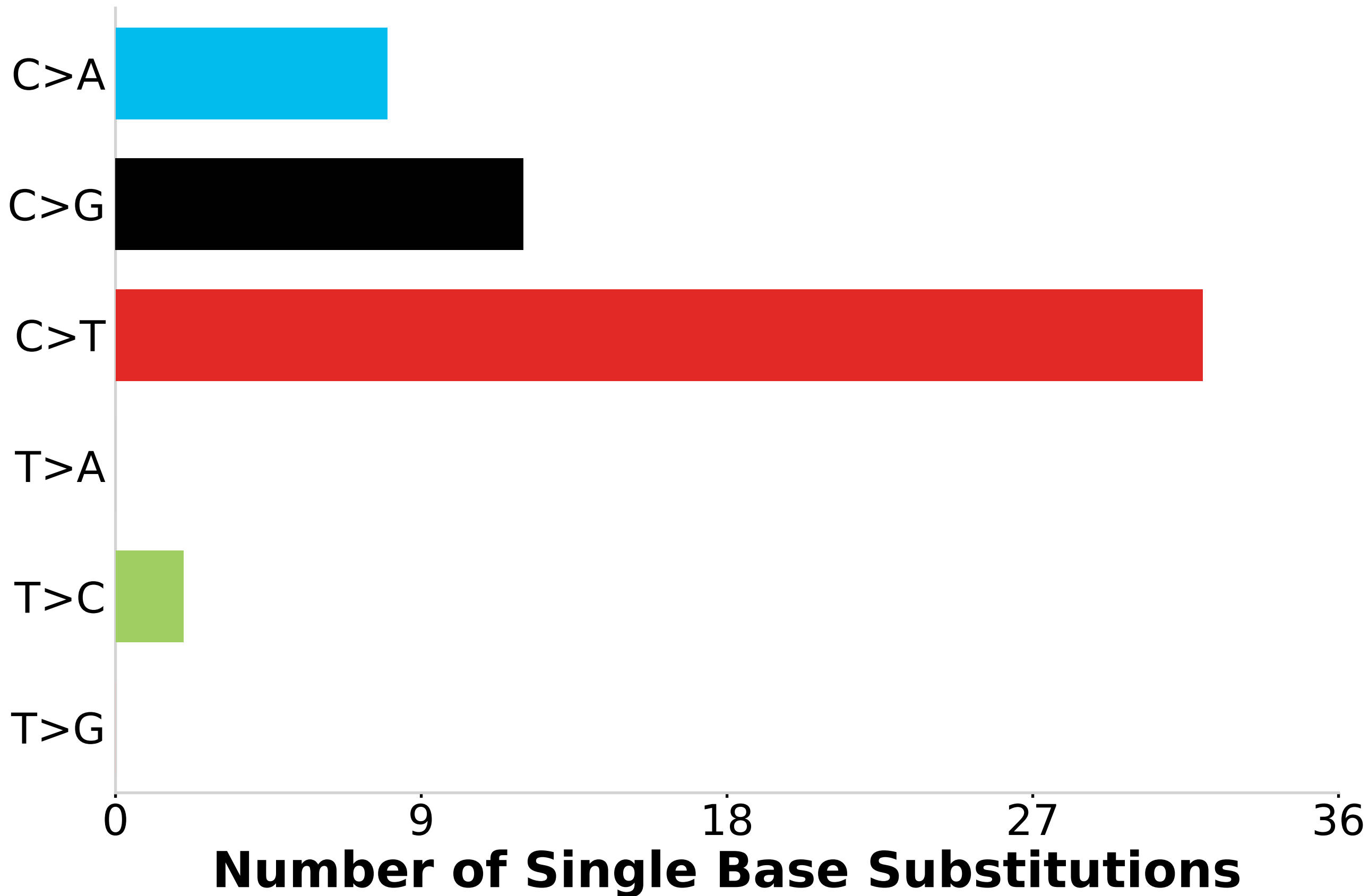
TCGA-PQ-A6FI-01A-11D-A31L-08: 41 subs



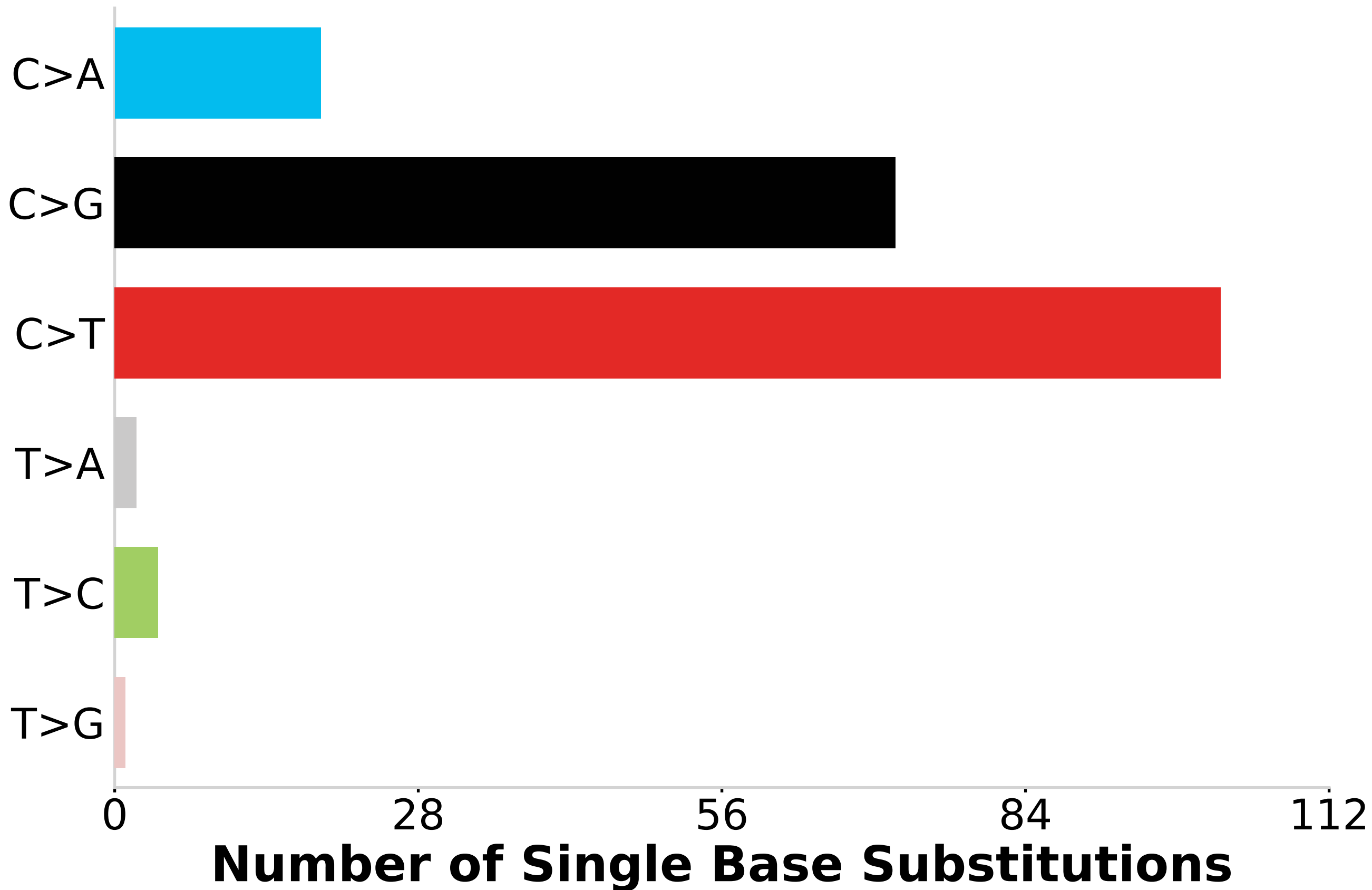
TCGA-PQ-A6FN-01A-11D-A31L-08: 23 subs



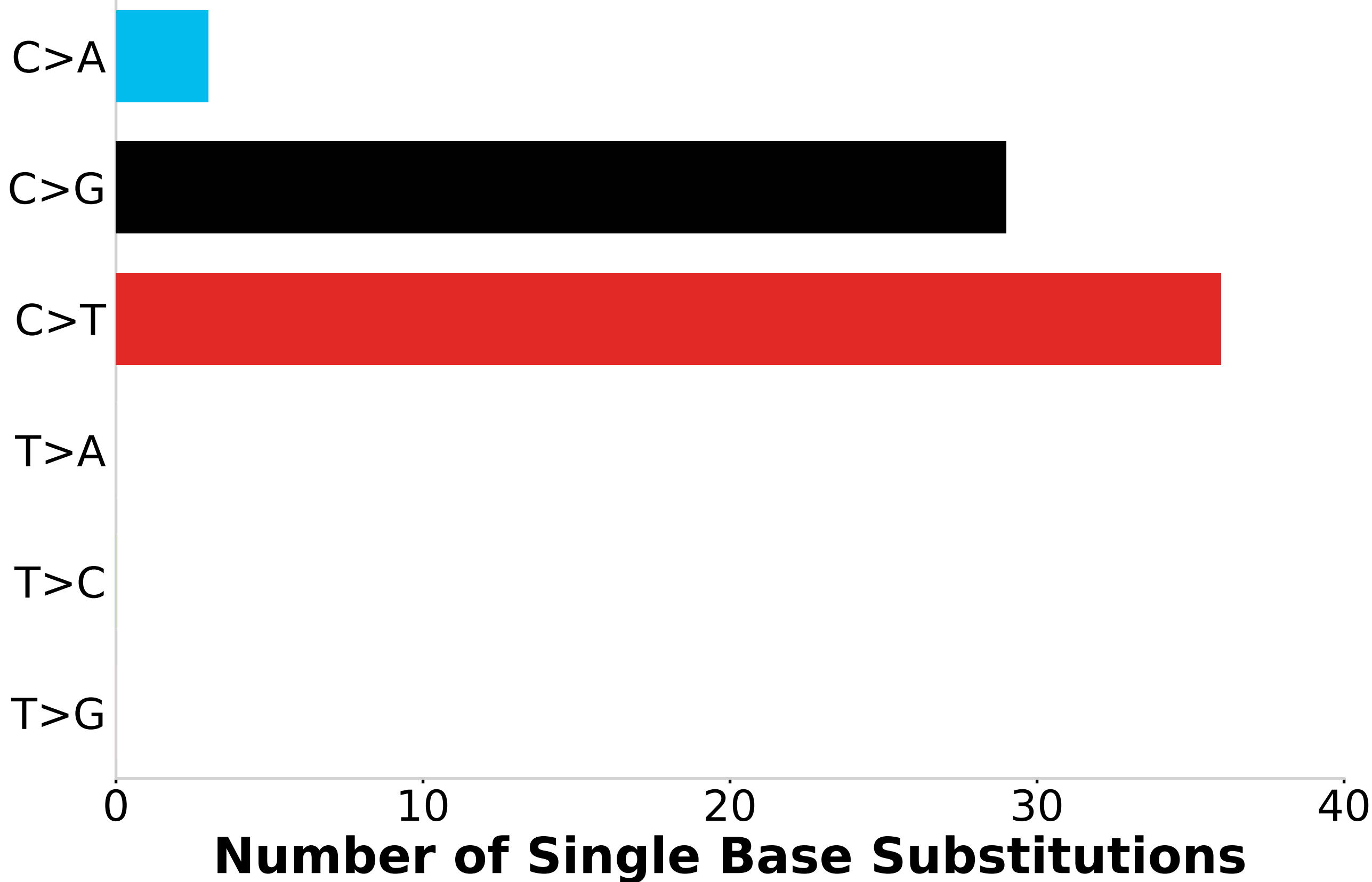
TCGA-R3-A69X-01A-22D-A30E-08: 54 subs



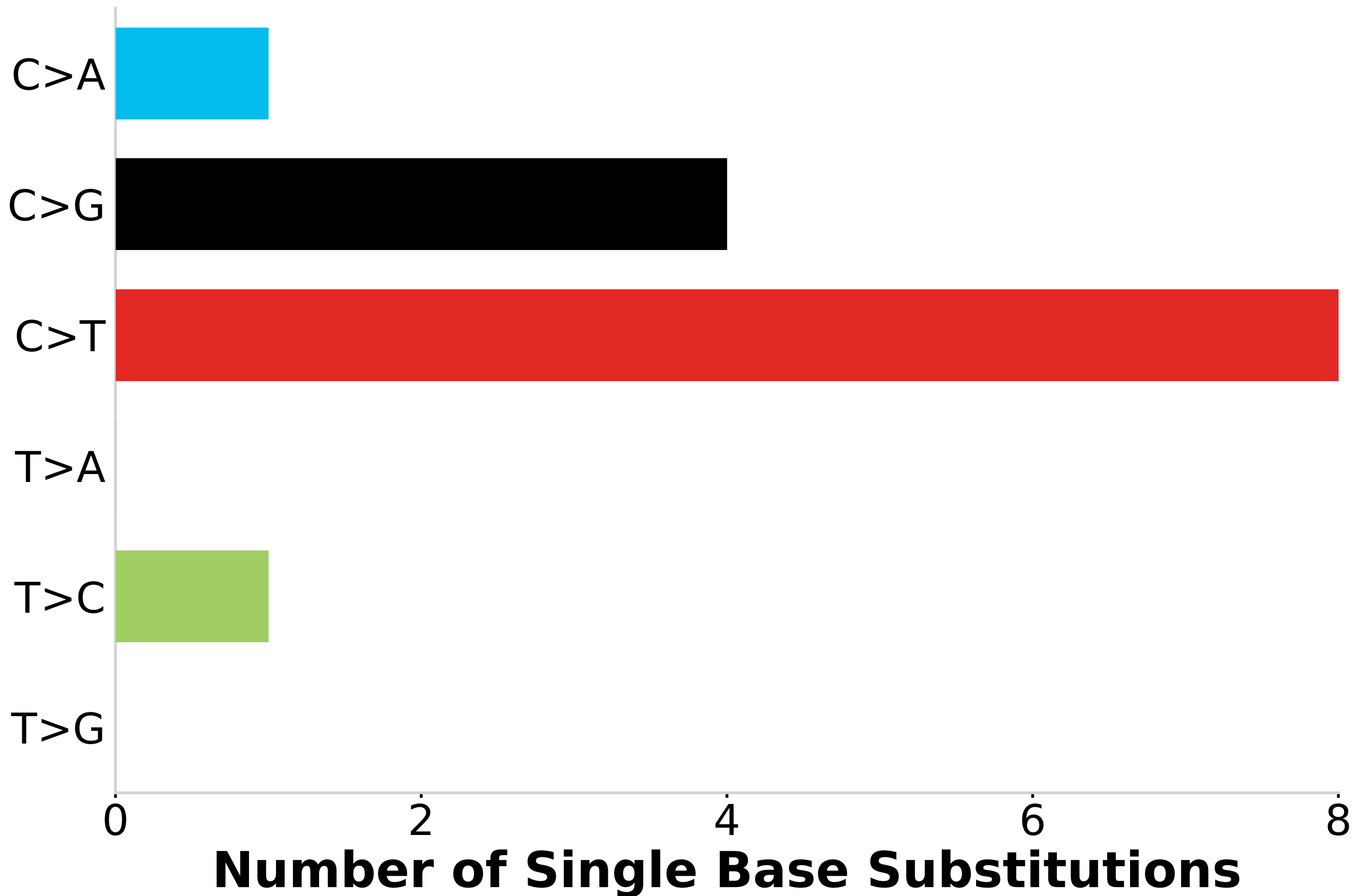
TCGA-S5-A6DX-01A-11D-A31L-08: 200 sub



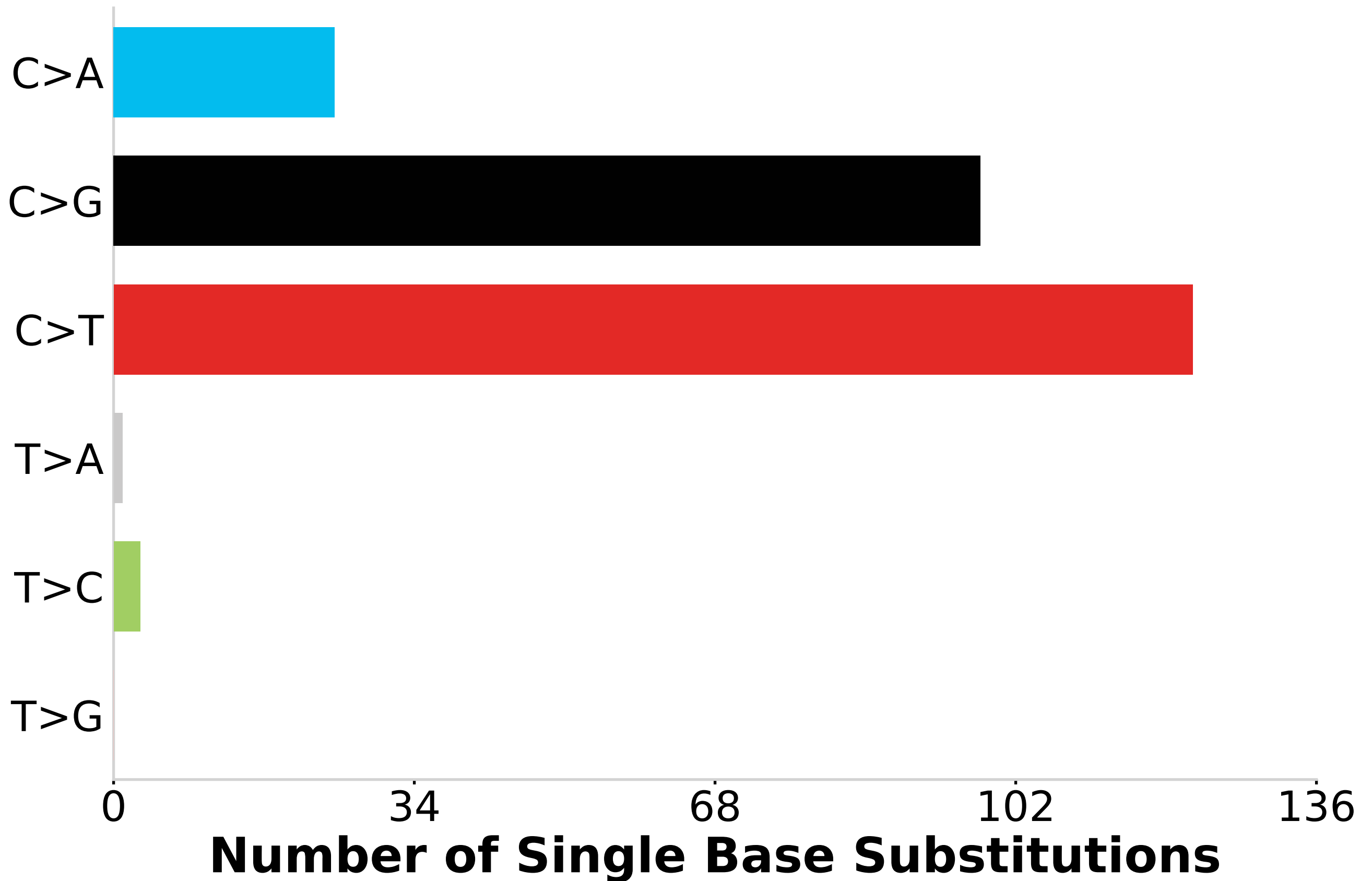
TCGA-S5-AA26-01A-11D-A38G-08: 68 subs



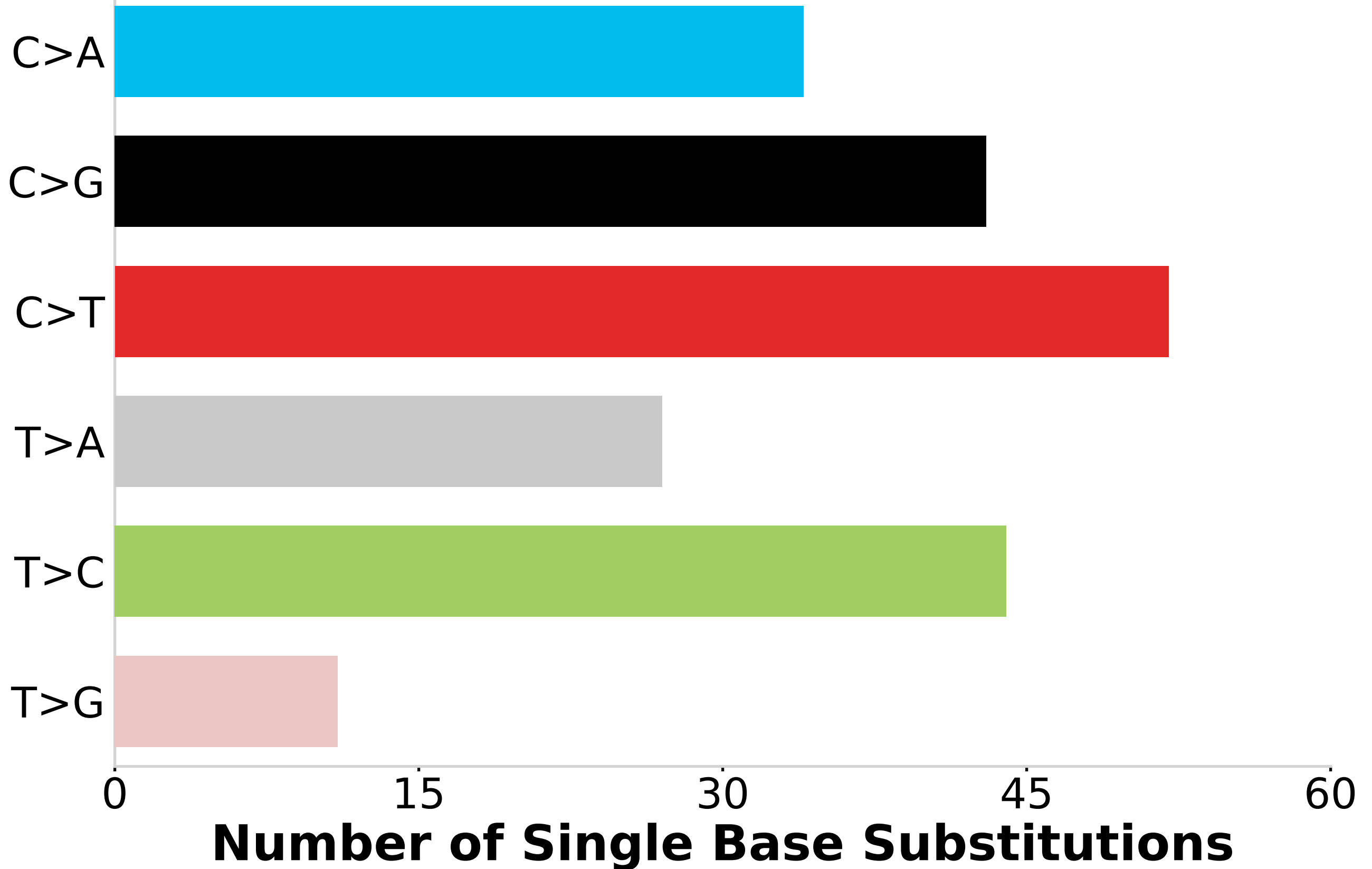
TCGA-SY-A9G0-01A-12D-A38G-08: 14 subs



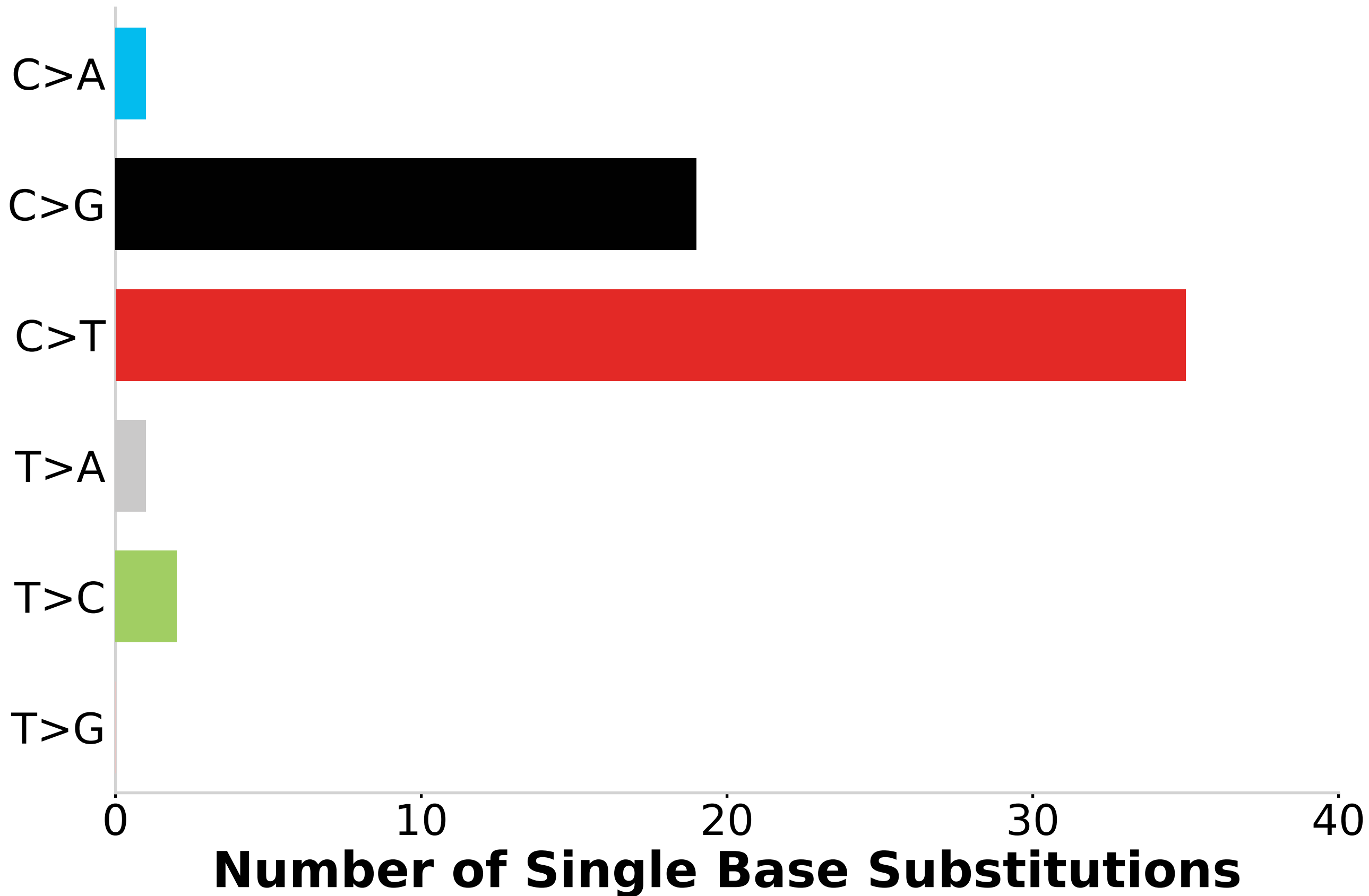
TCGA-SY-A9G5-01A-11D-A38G-08: 249 sub



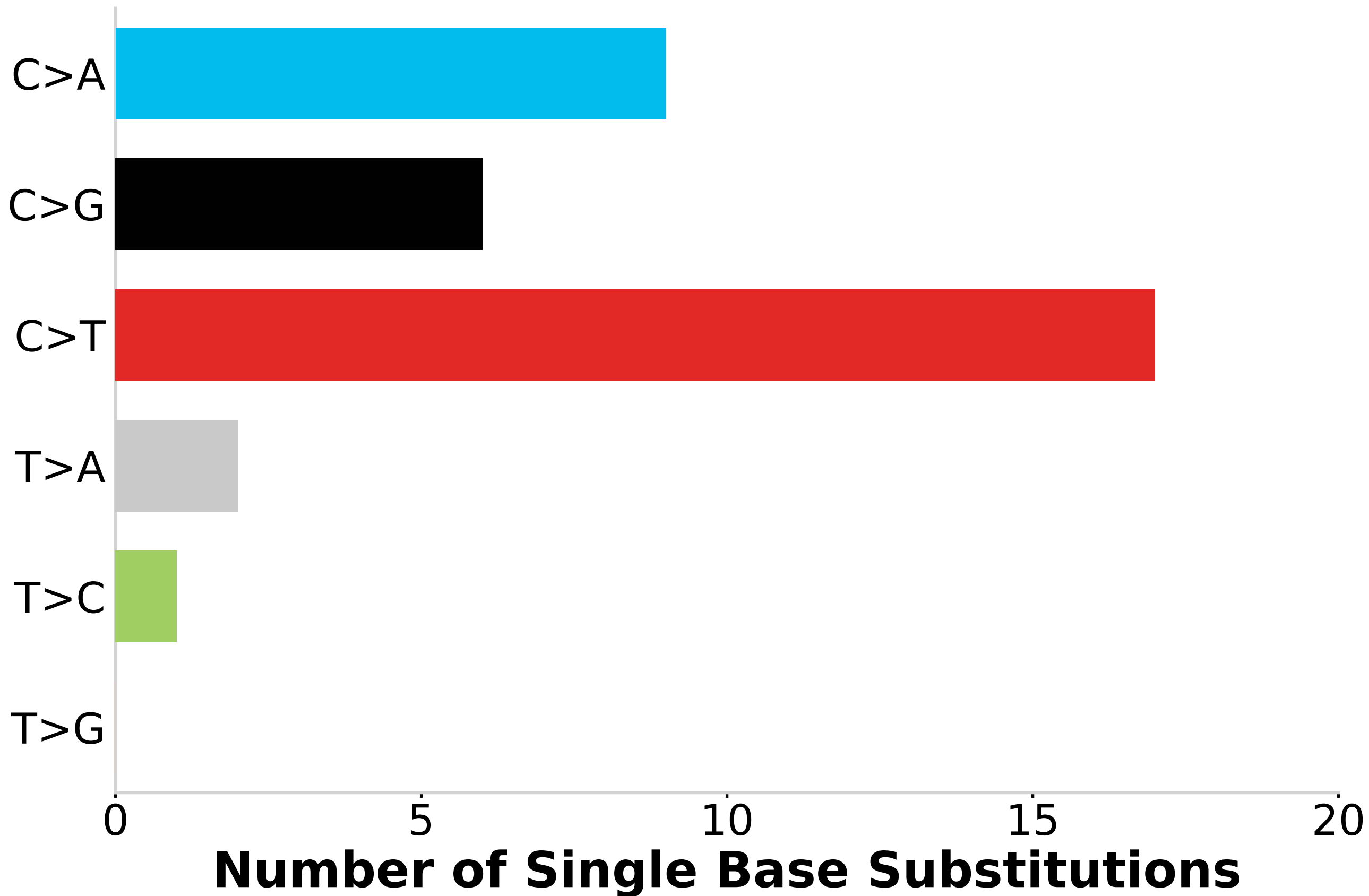
TCGA-UY-A78K-01A-11D-A339-08: 211 sub



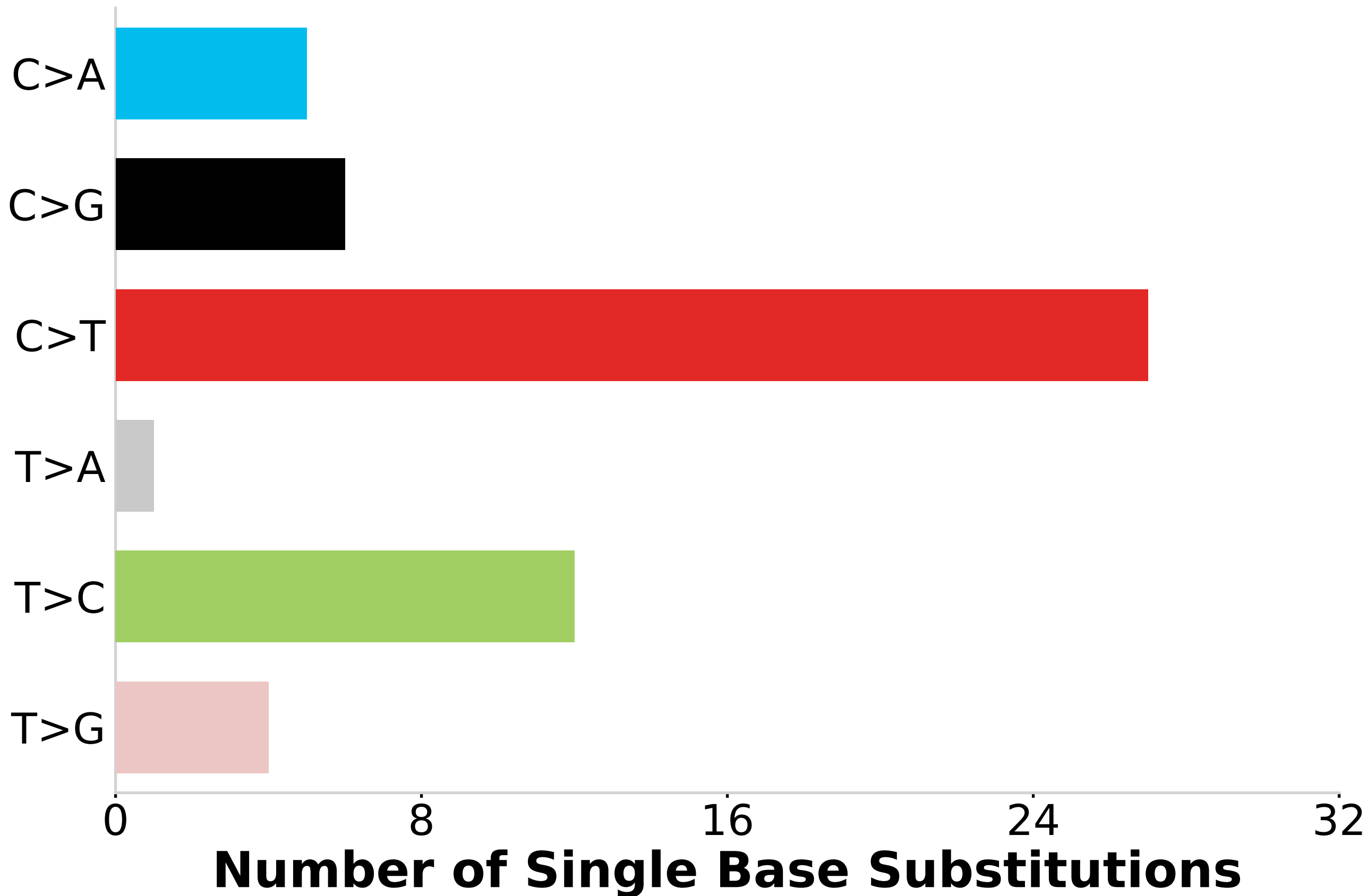
TCGA-UY-A78L-01A-12D-A339-08: 58 subs



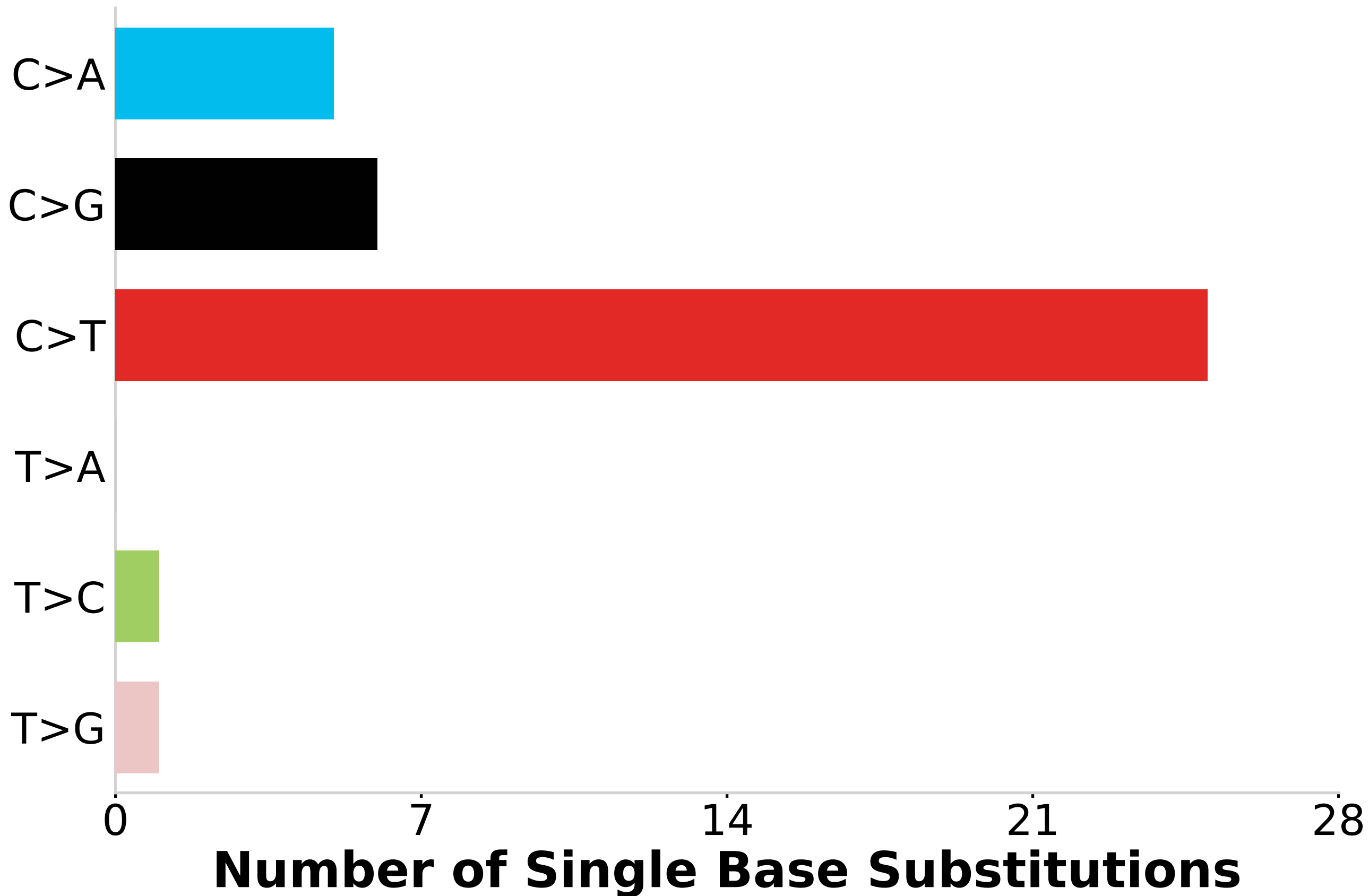
TCGA-UY-A78M-01A-21D-A34U-08: 35 subs



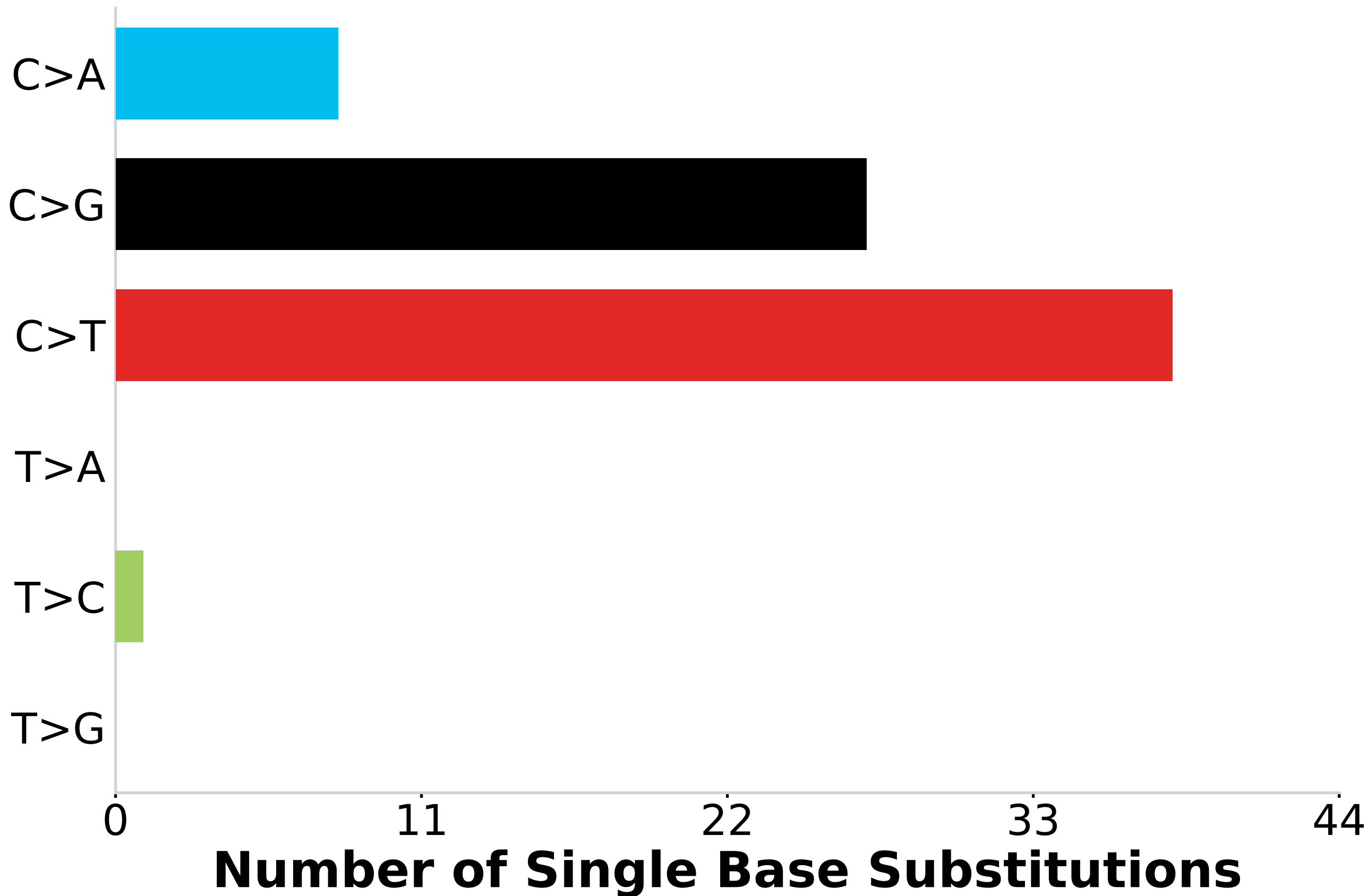
TCGA-UY-A78N-01A-12D-A339-08: 55 subs



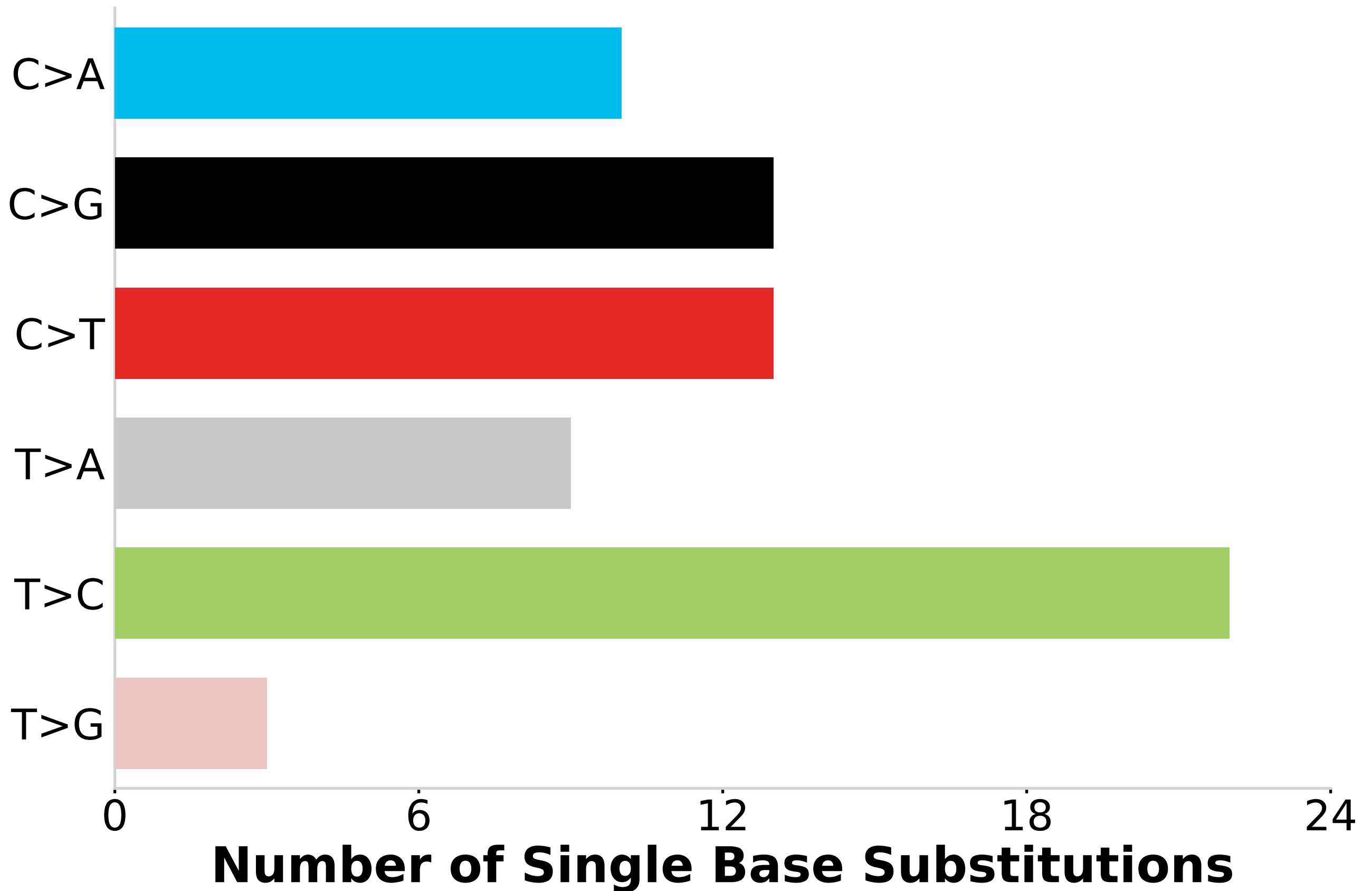
TCGA-UY-A780-01A-12D-A339-08: 38 subs



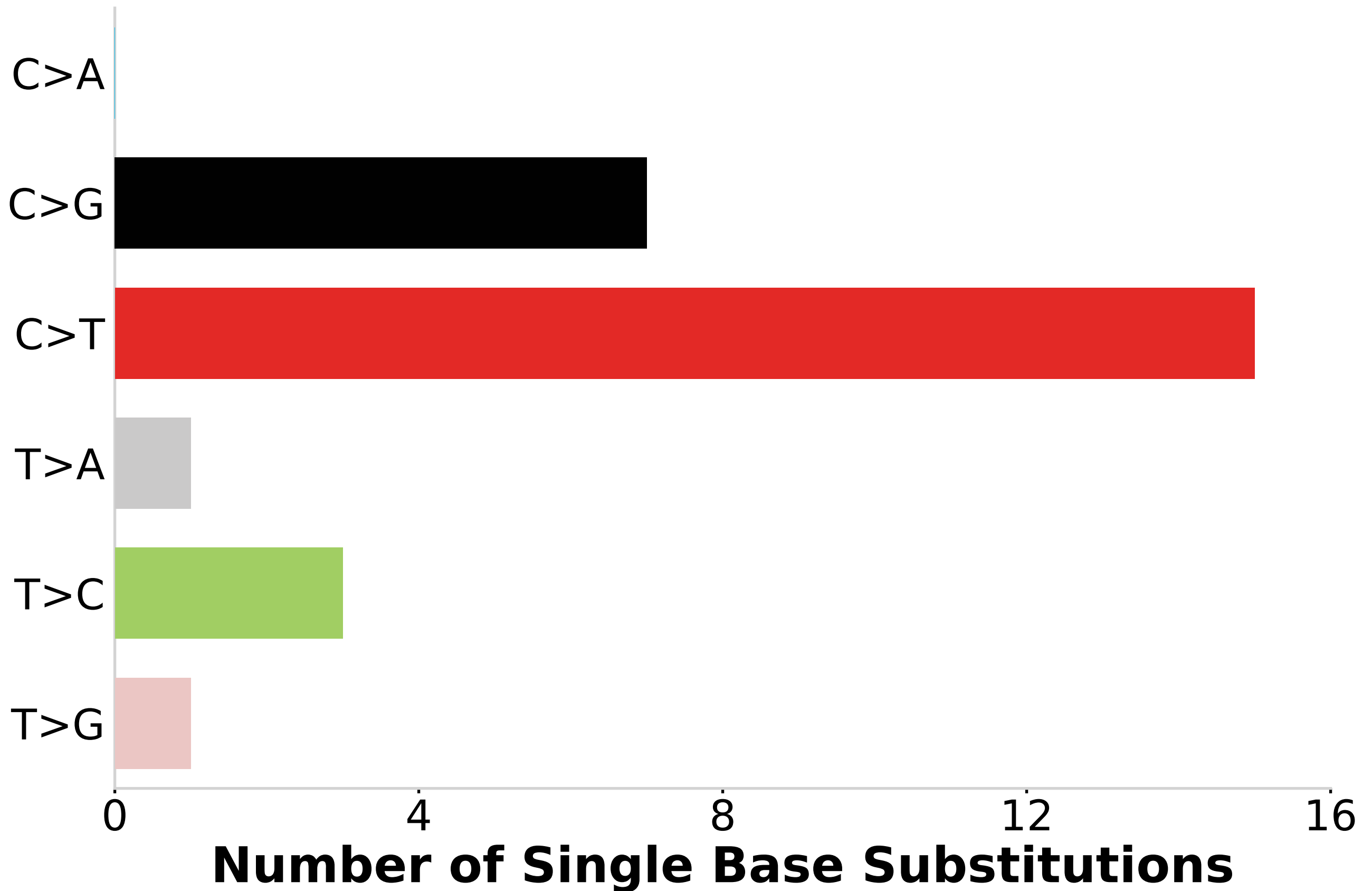
TCGA-UY-A78P-01A-12D-A364-08: 74 subs



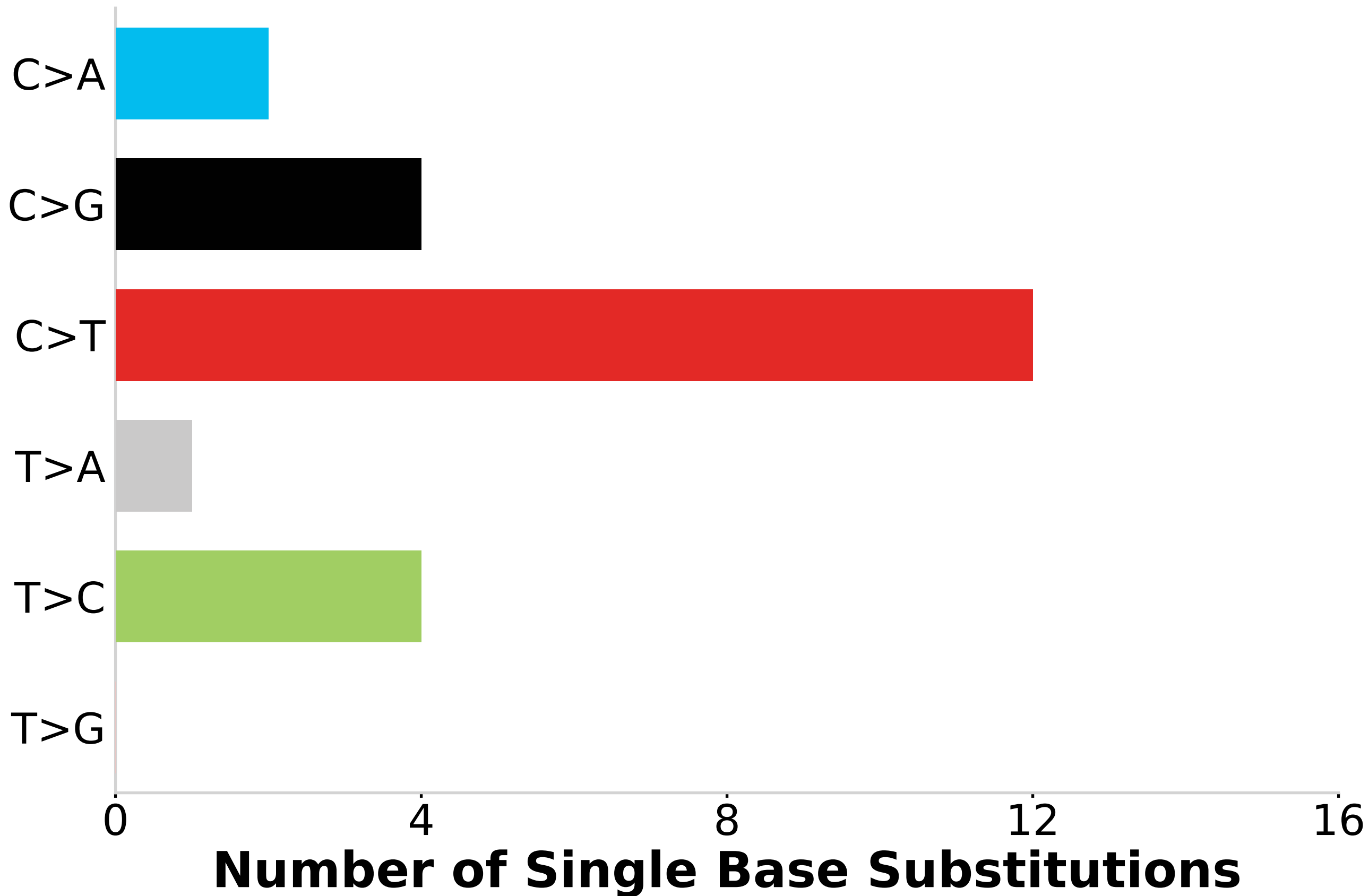
TCGA-UY-A80B-01A-12D-A42E-08: 70 subs



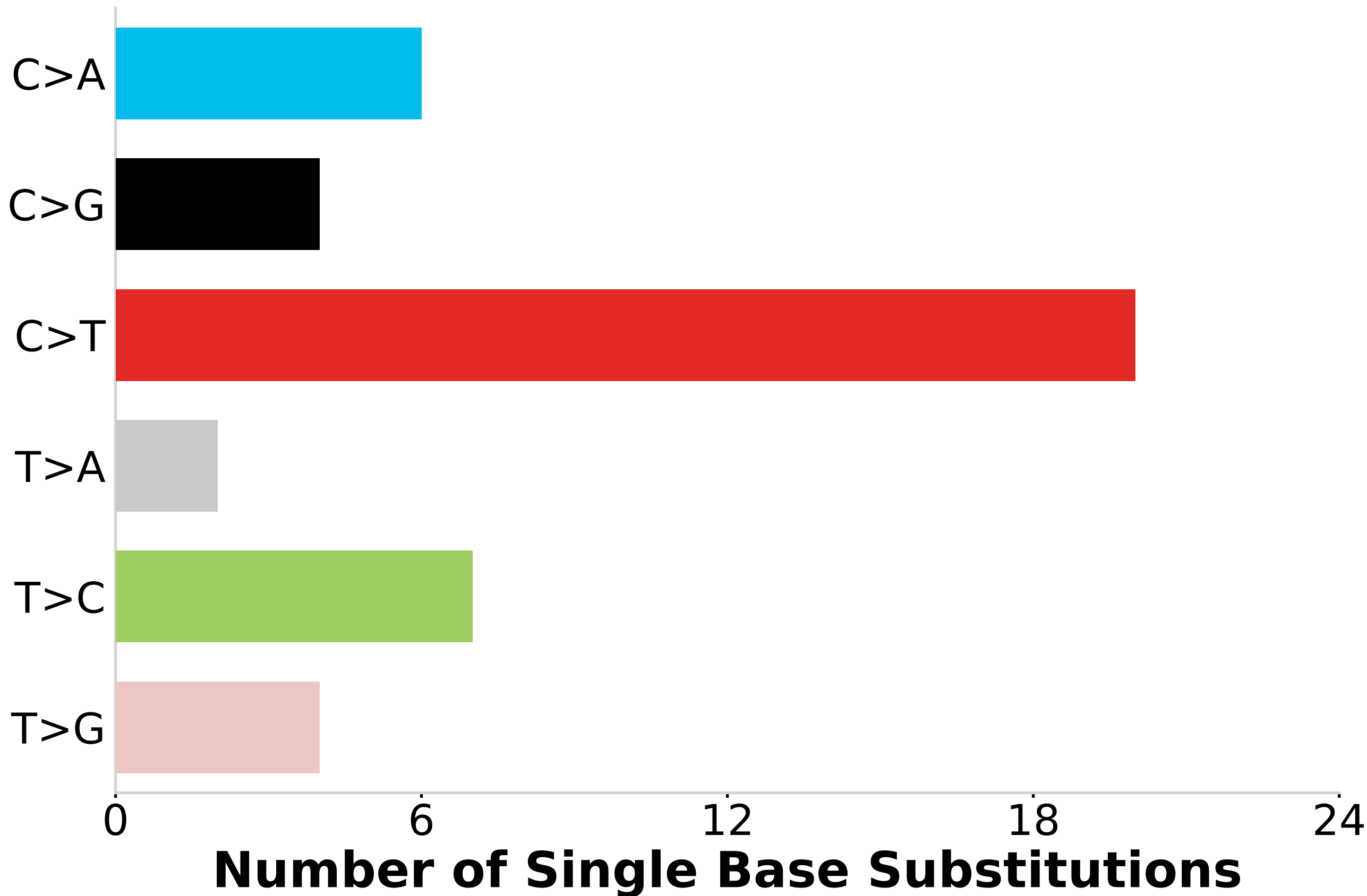
TCGA-UY-A80C-01A-11D-A364-08: 27 subs



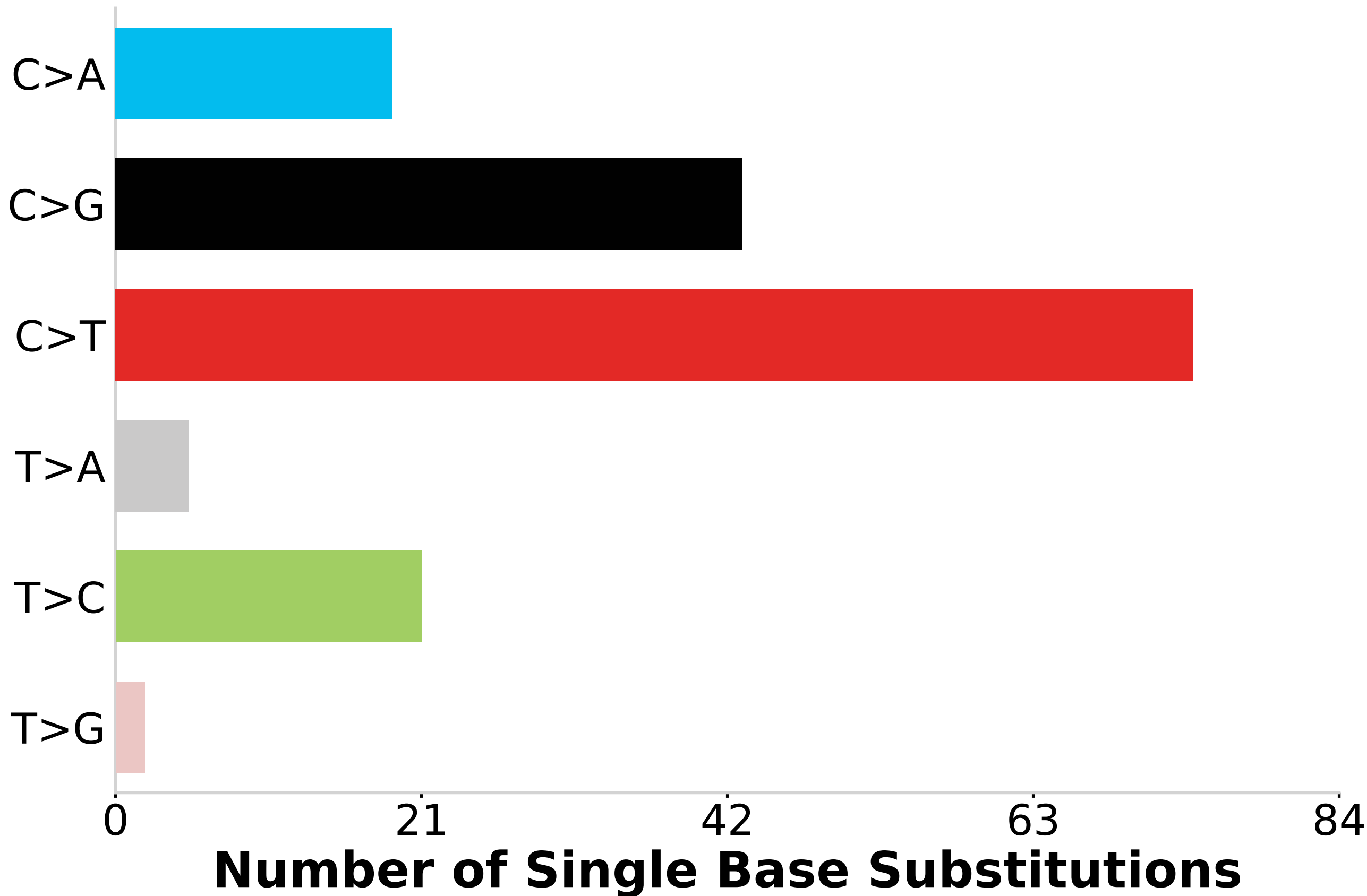
TCGA-UY-A80D-01A-11D-A364-08: 23 subs



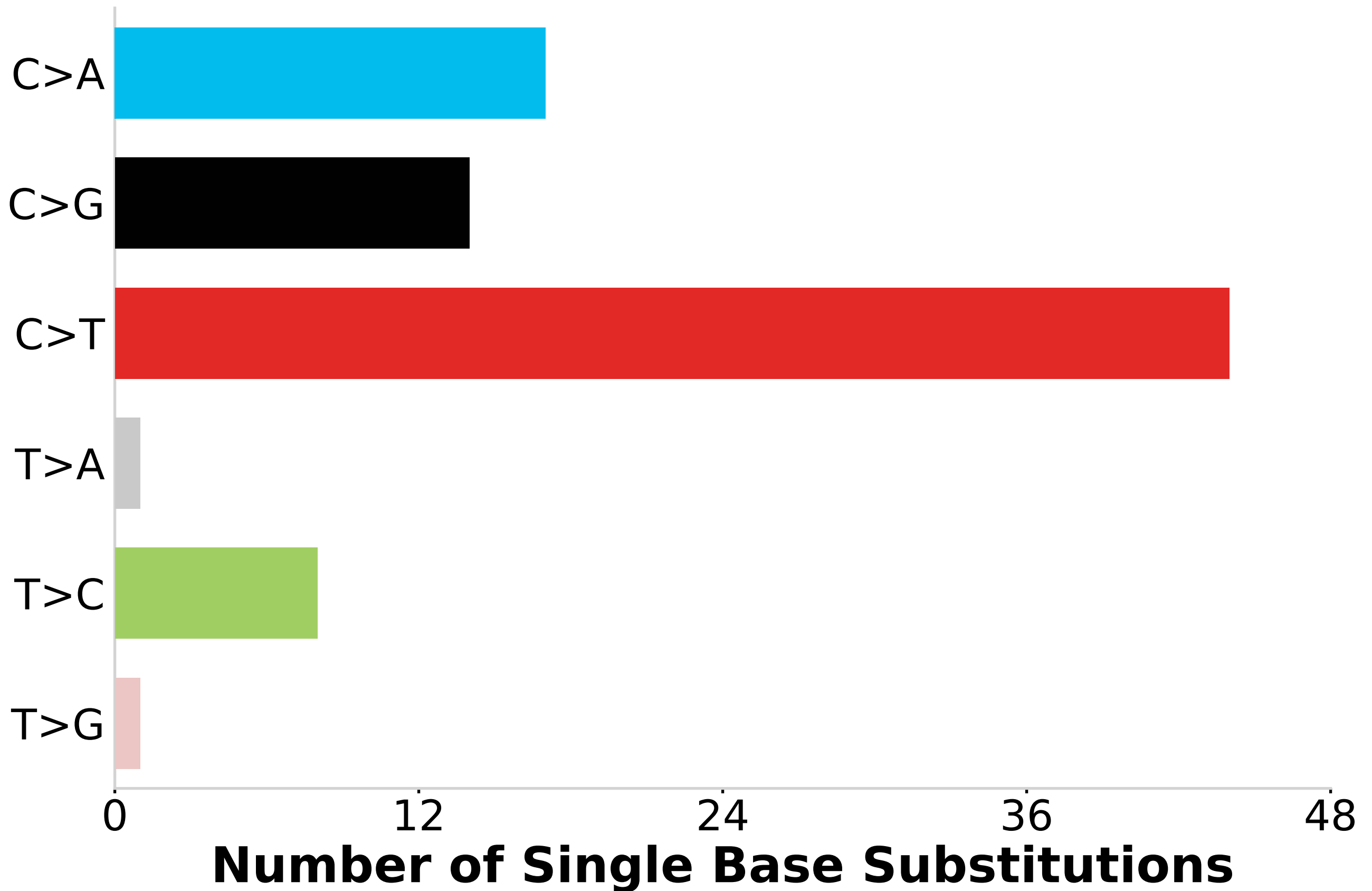
TCGA-UY-A9PA-01A-11D-A38G-08: 43 subs



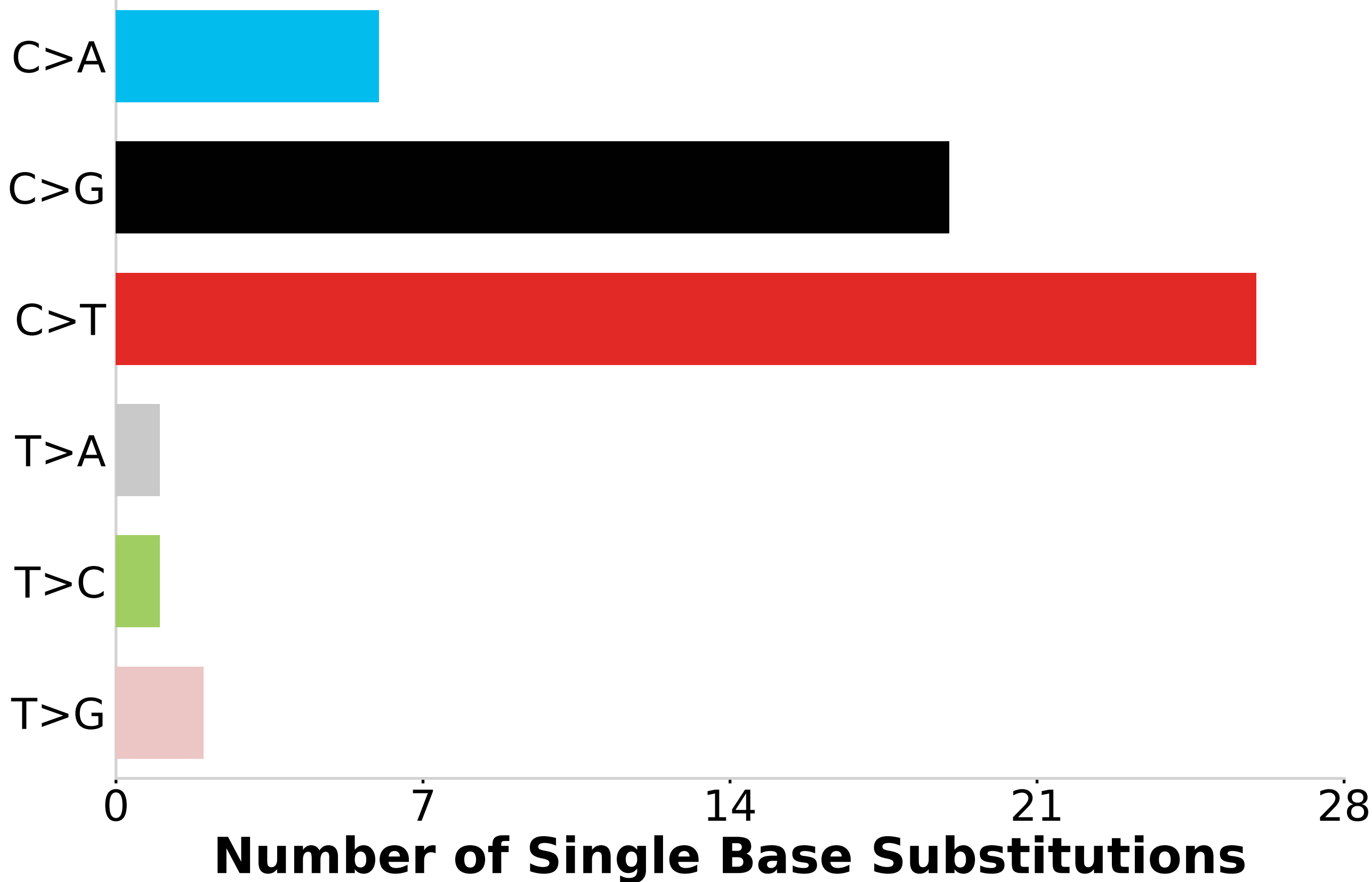
TCGA-UY-A9PB-01A-11D-A38G-08: 164 sub



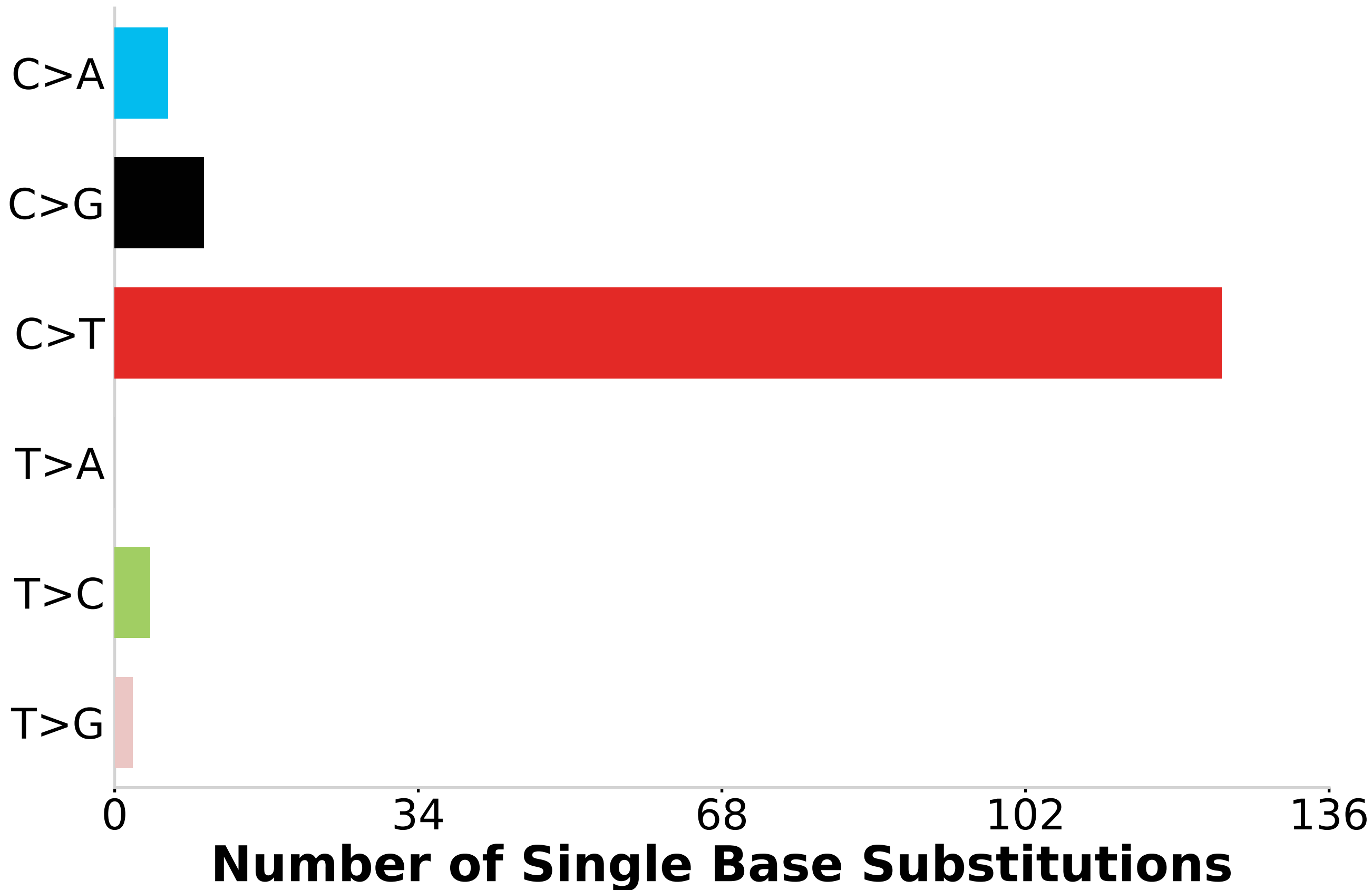
TCGA-UY-A9PD-01A-11D-A38G-08: 85 subs



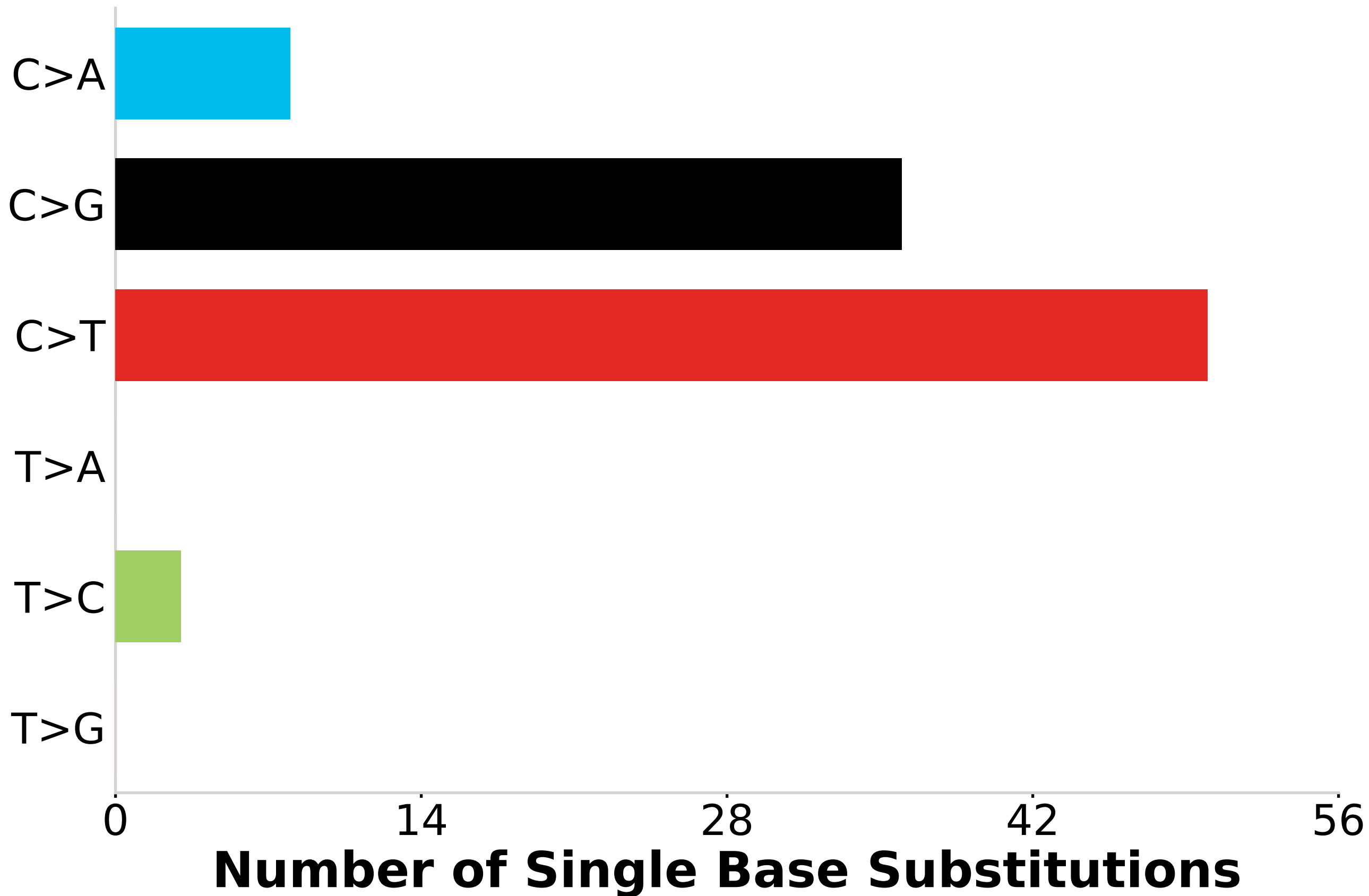
TCGA-UY-A9PE-01A-11D-A38G-08: 55 subs



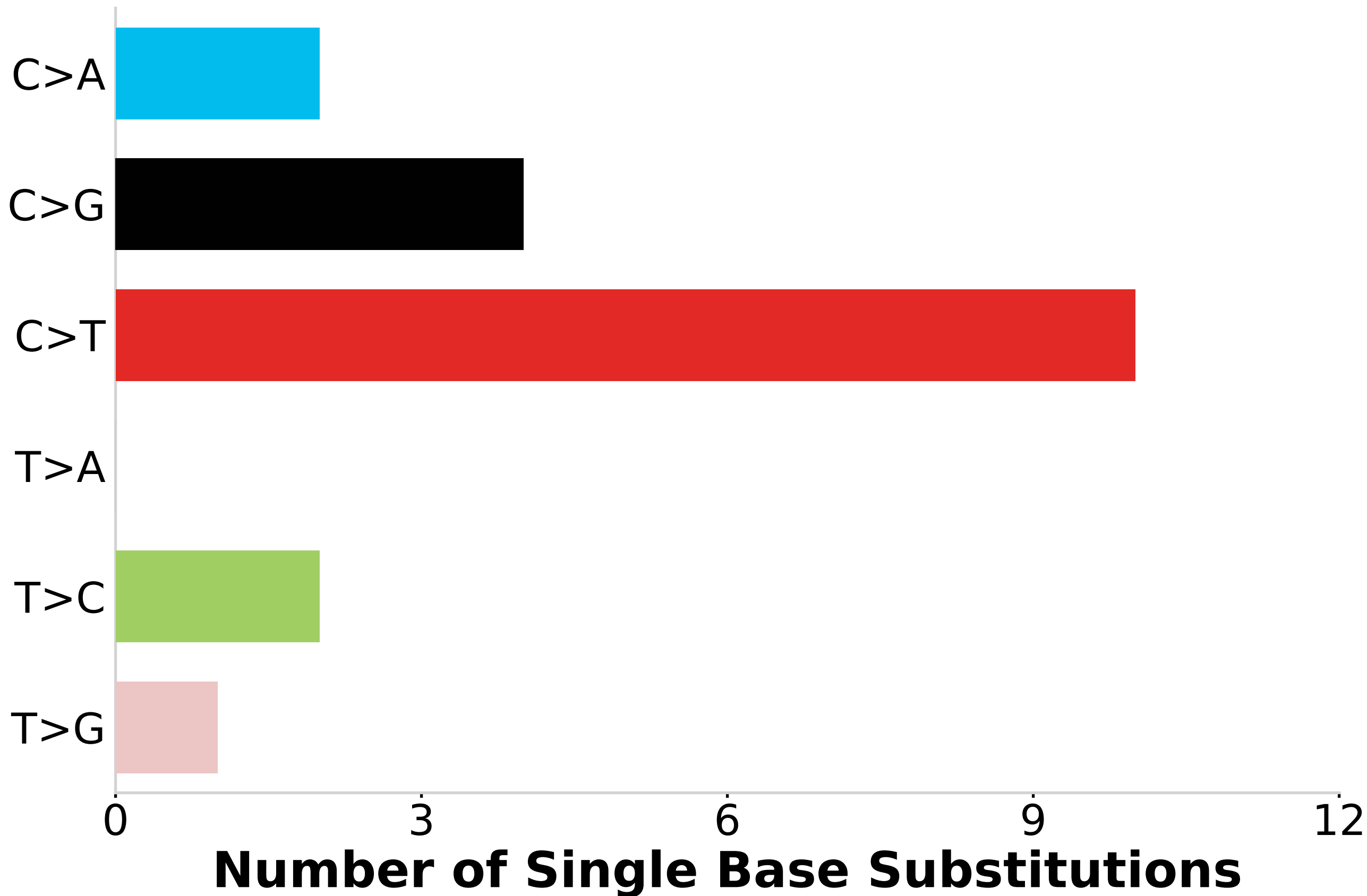
TCGA-UY-A9PF-01A-11D-A38G-08: 146 sub



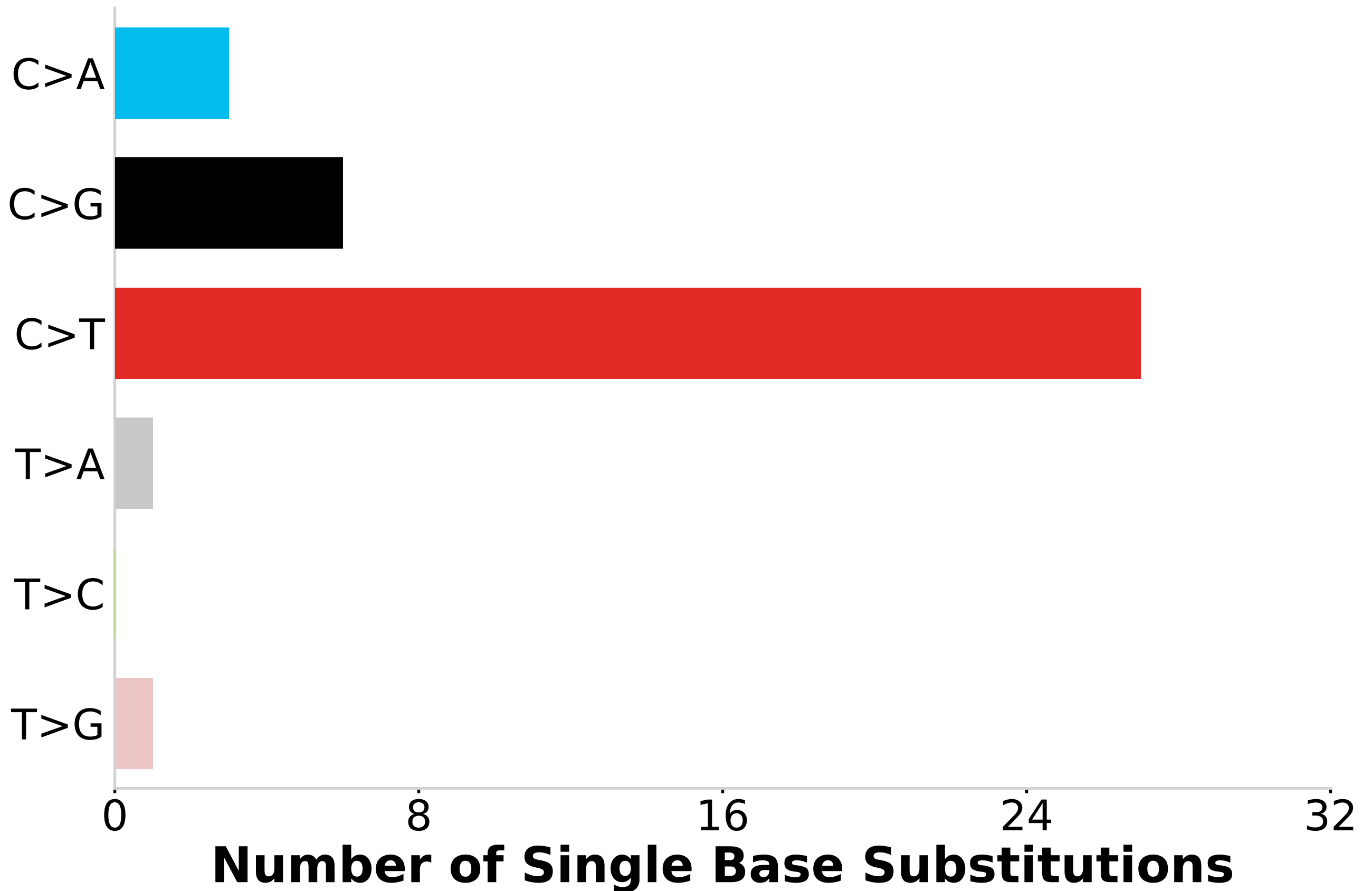
TCGA-UY-A9PH-01A-11D-A38G-08: 97 subs



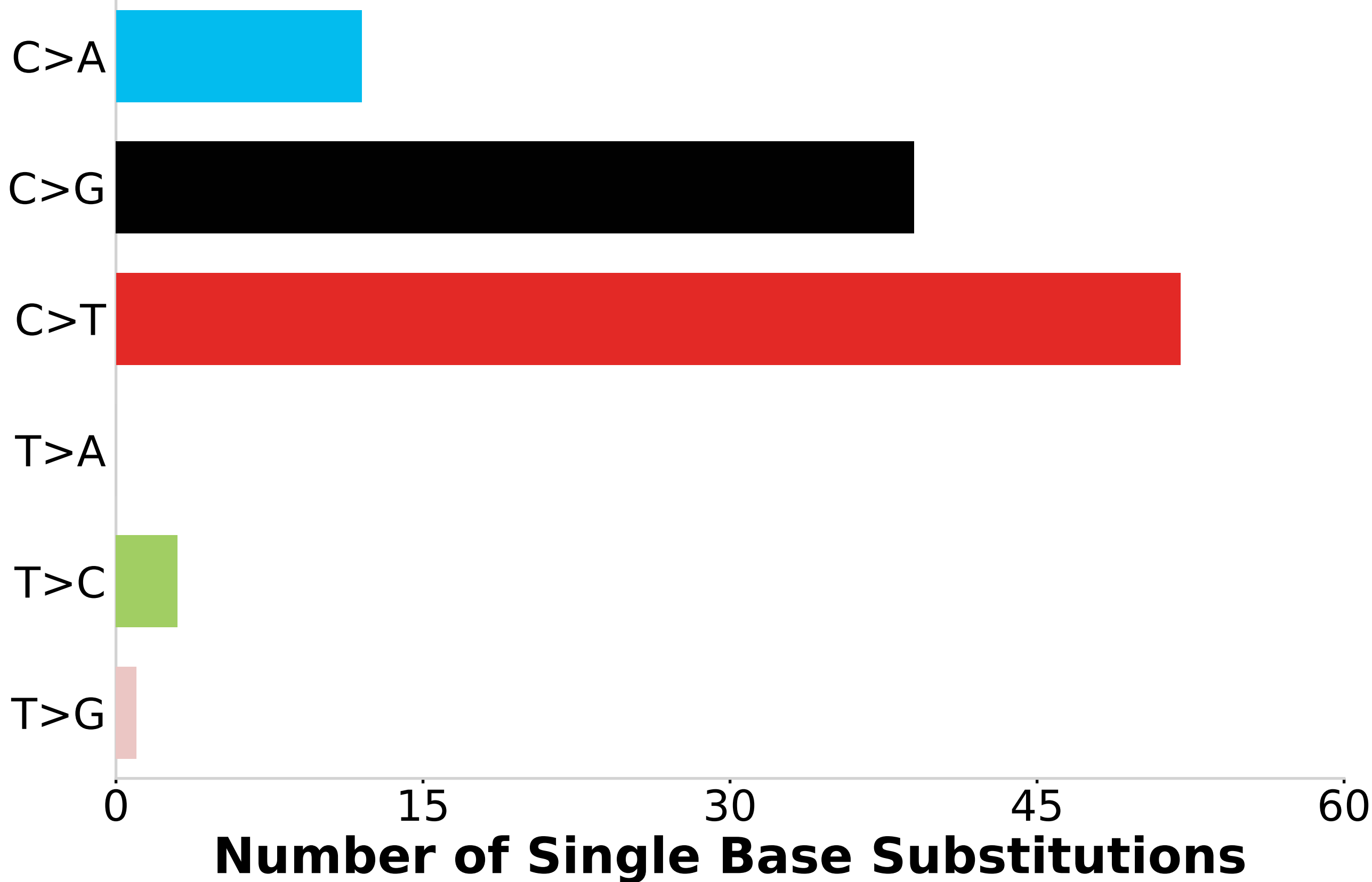
TCGA-XF-A8HB-01A-11D-A364-08: 19 subs



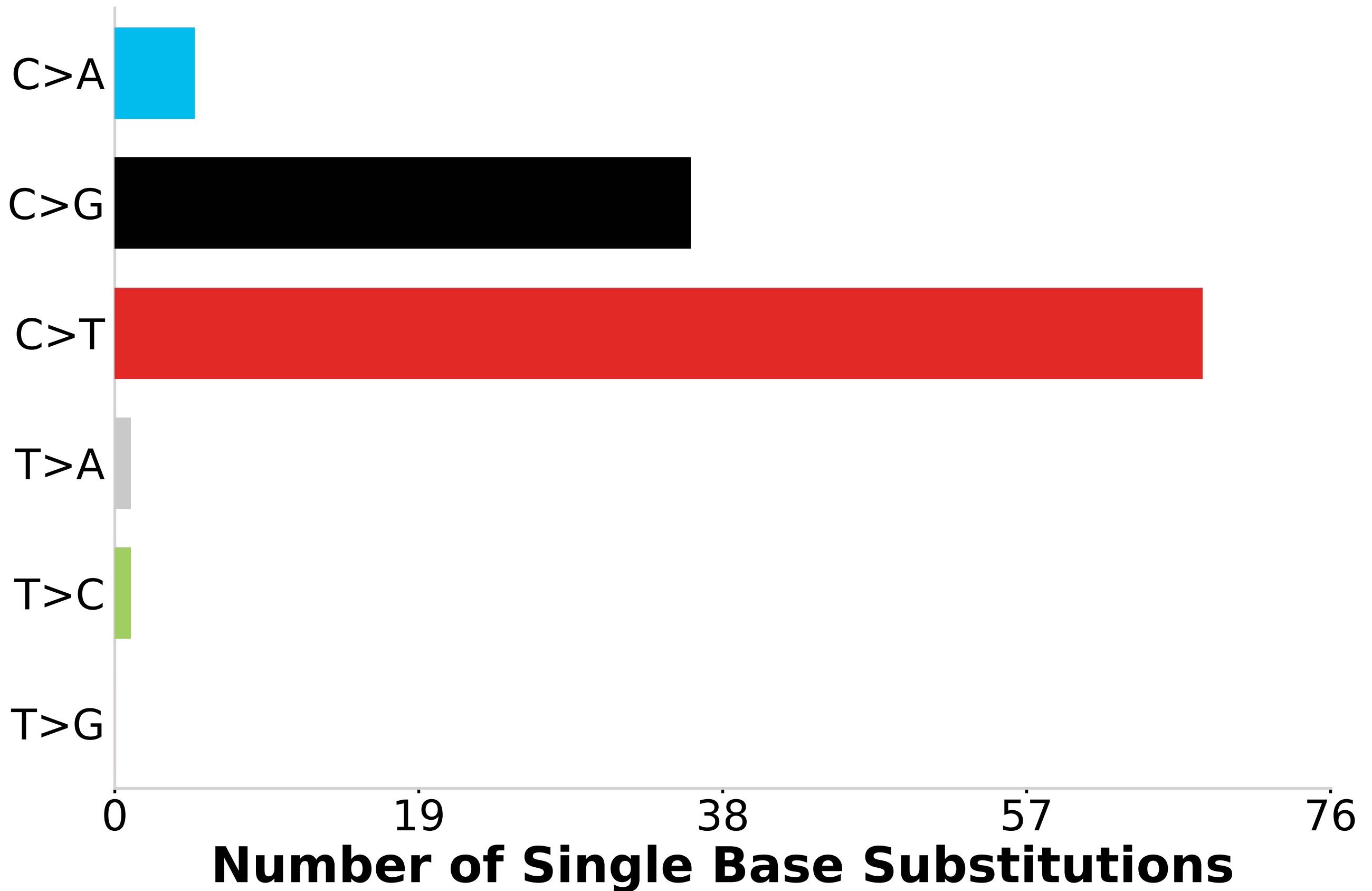
TCGA-XF-A8HC-01A-11D-A364-08: 38 subs



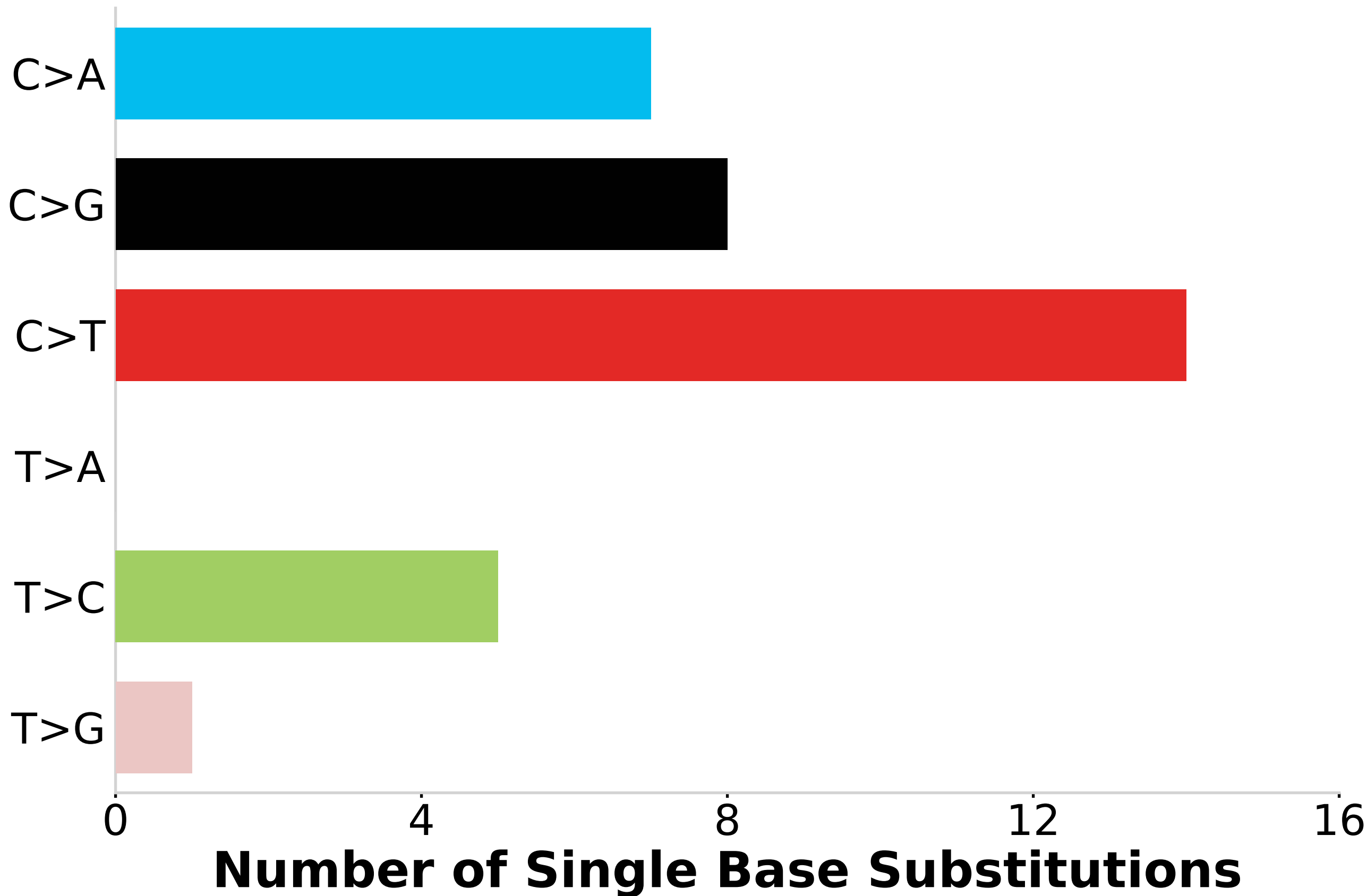
TCGA-XF-A8HD-01A-11D-A364-08: 107 sub



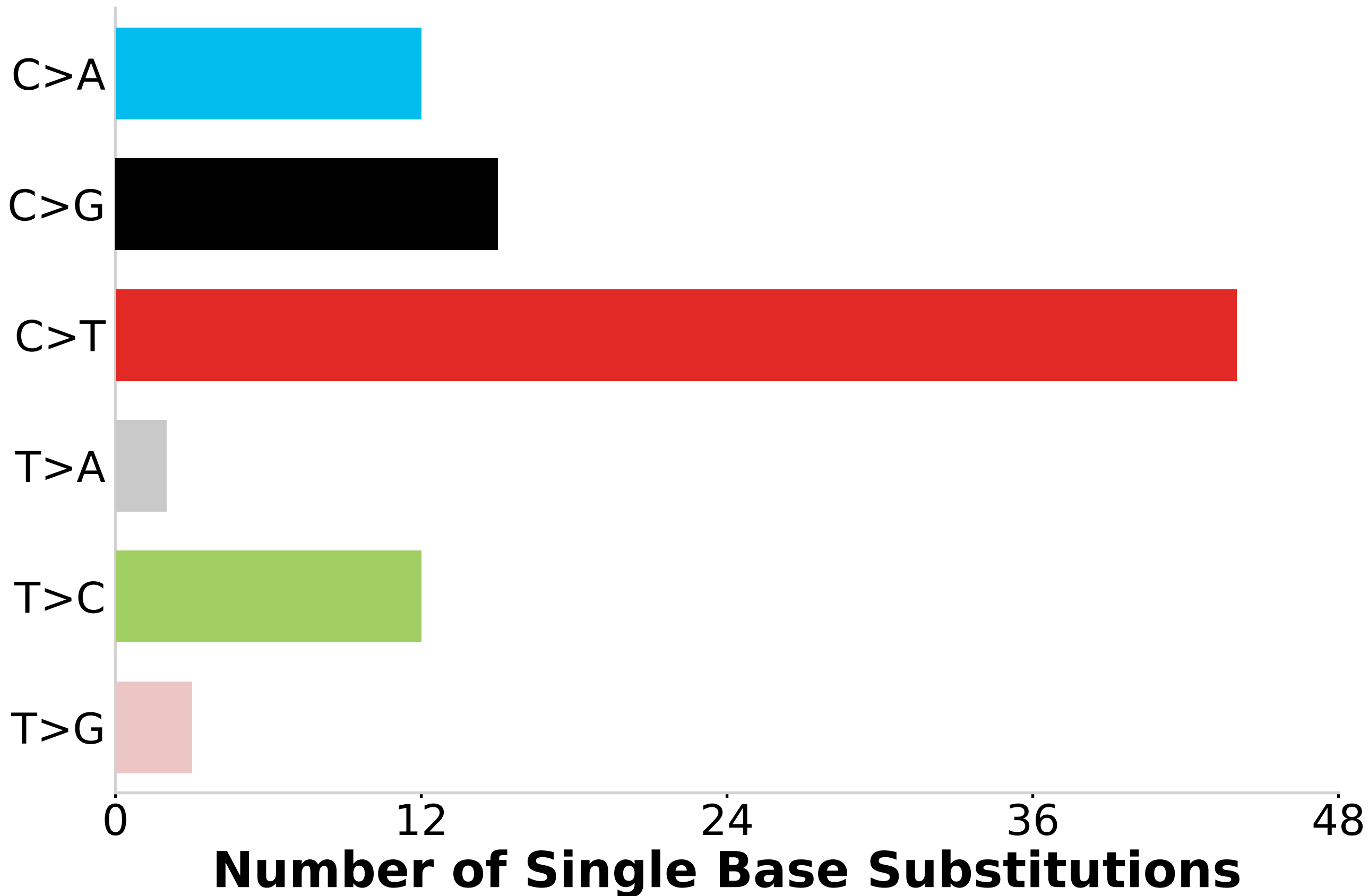
TCGA-XF-A8HE-01A-11D-A364-08: 111 sub



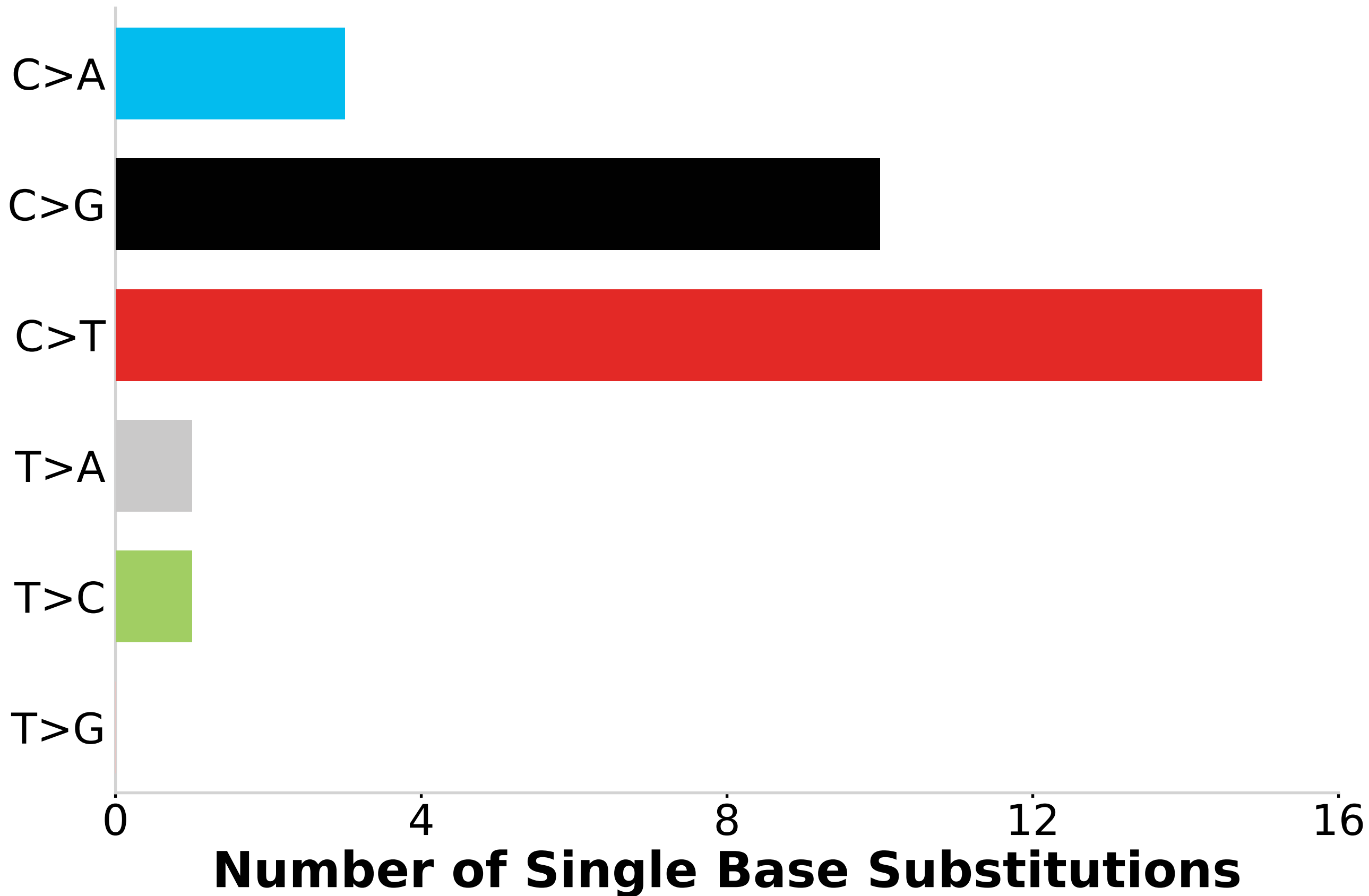
TCGA-XF-A8HF-01A-11D-A364-08: 35 subs



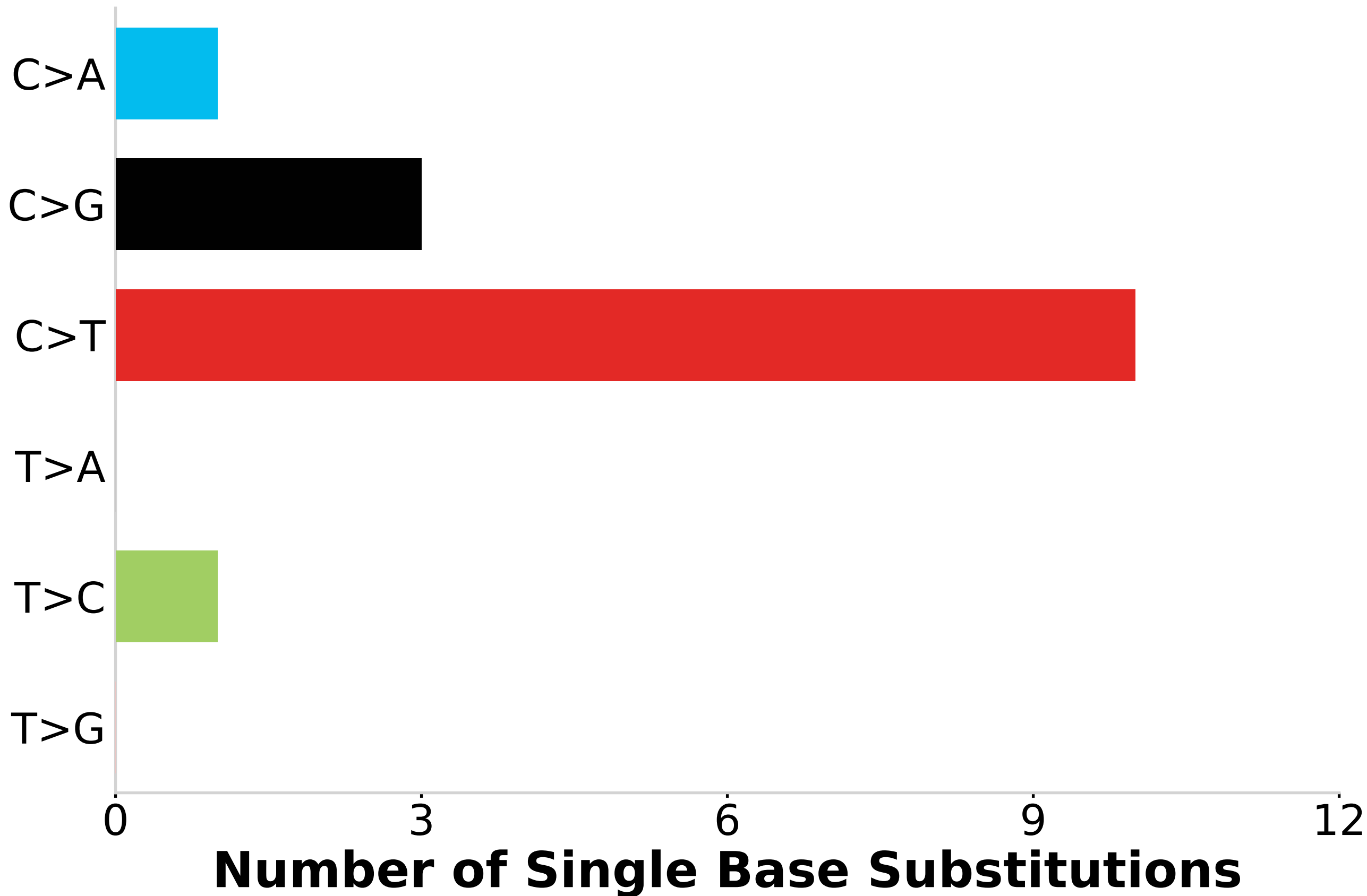
TCGA-XF-A8HG-01A-11D-A364-08: 88 subs



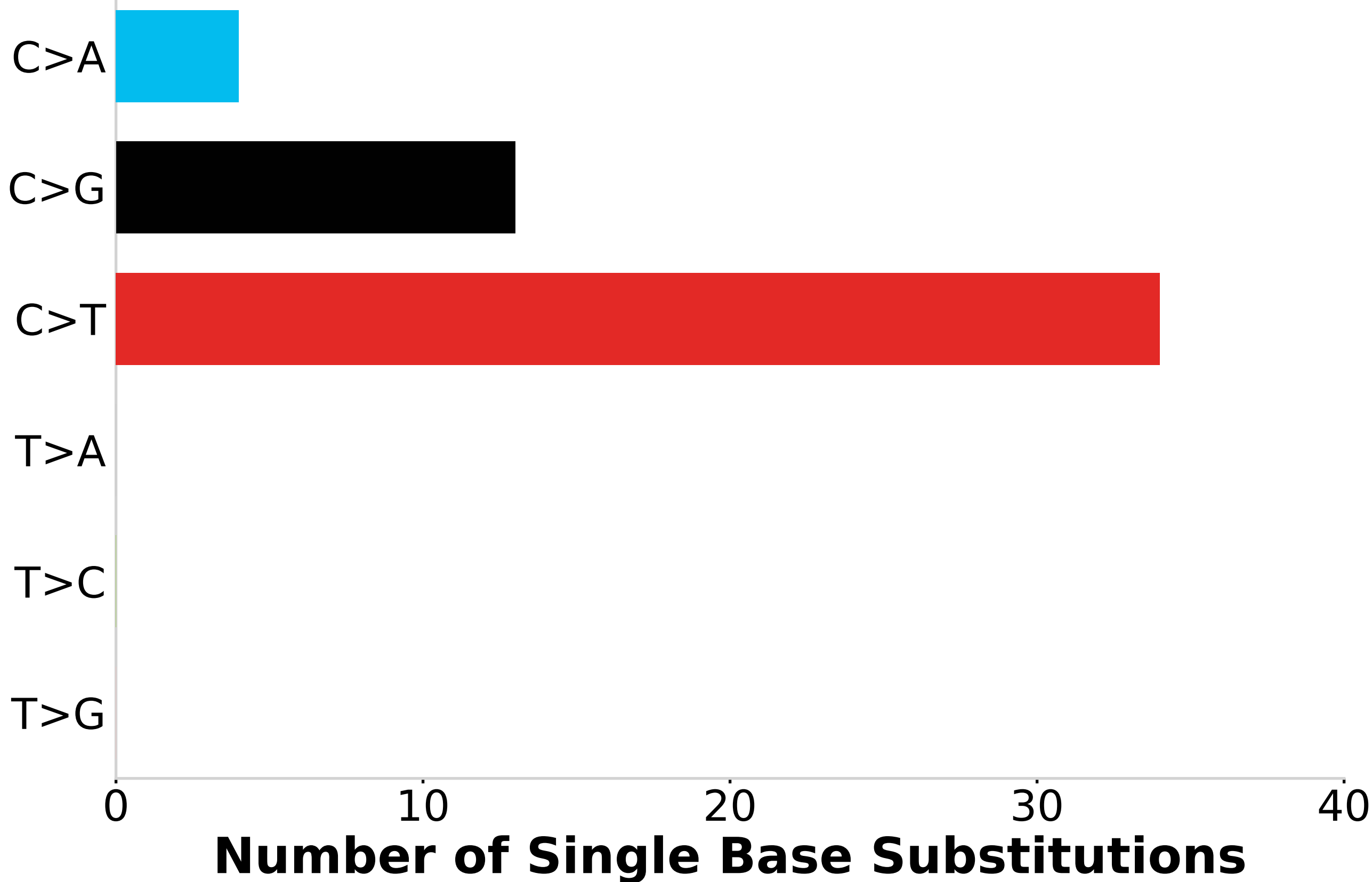
TCGA-XF-A8HH-01A-11D-A38G-08: 30 subs



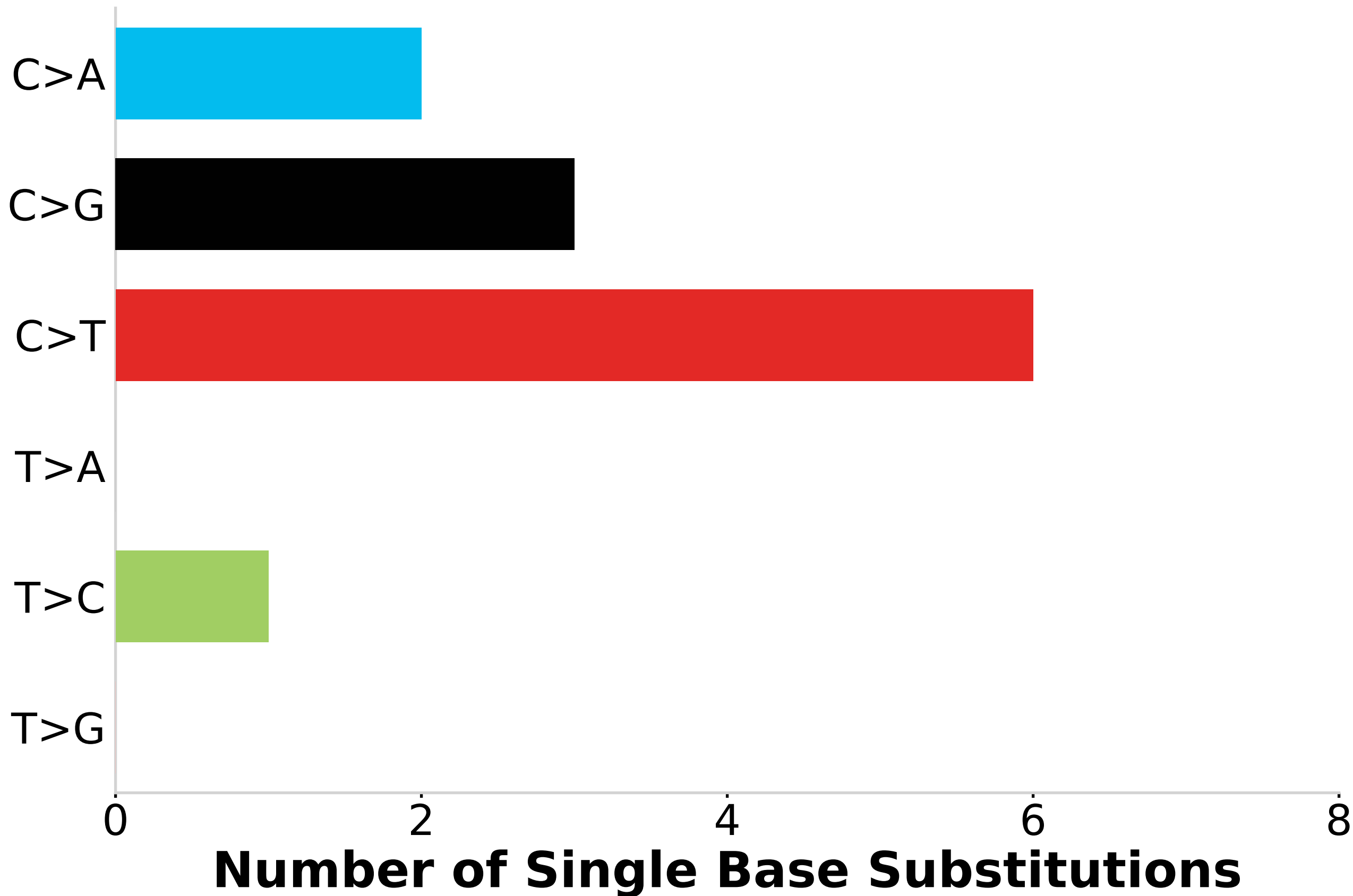
TCGA-XF-A8HI-01A-11D-A38G-08: 15 subs



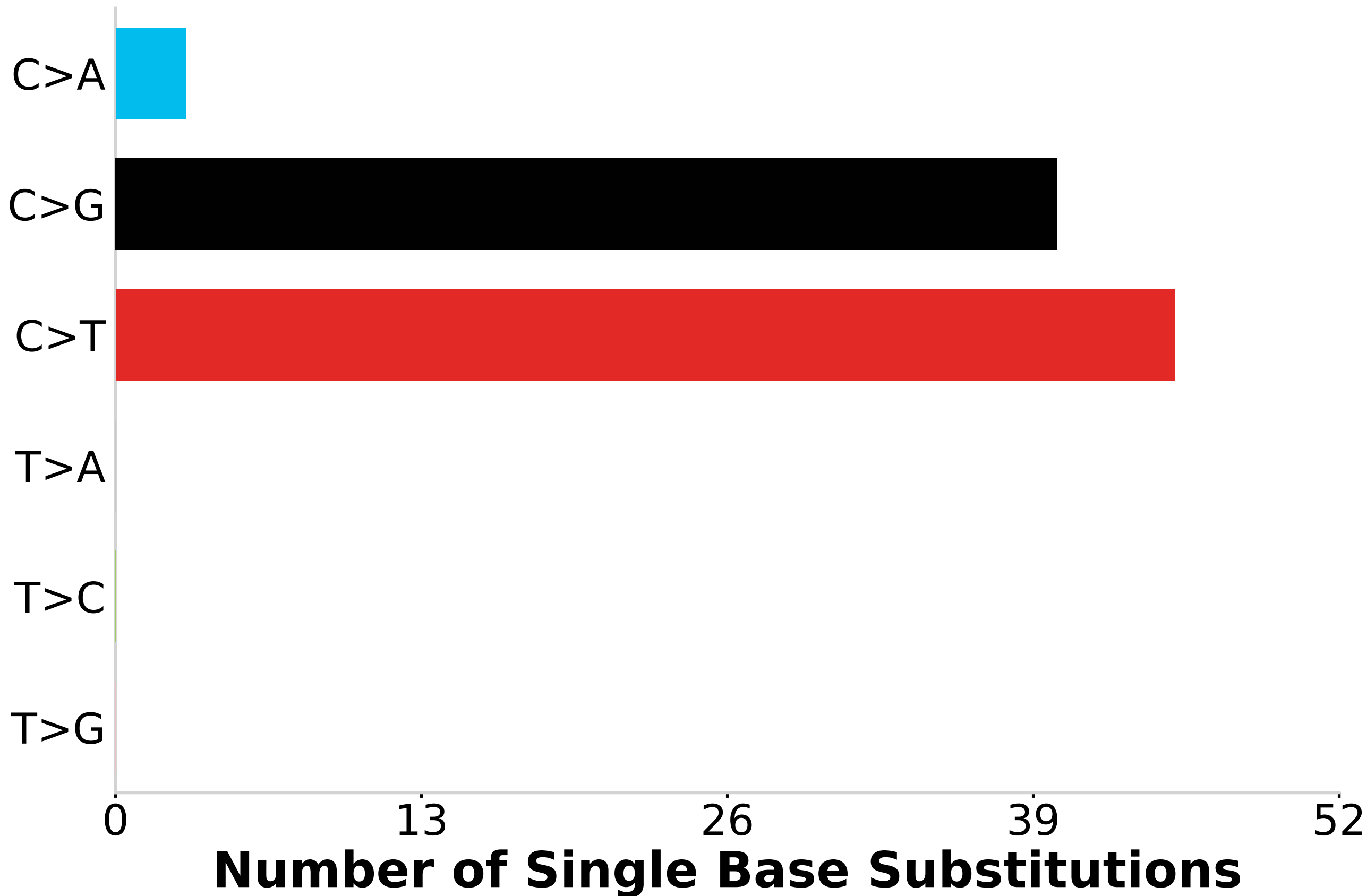
TCGA-XF-A9SG-01A-12D-A42E-08: 51 subs



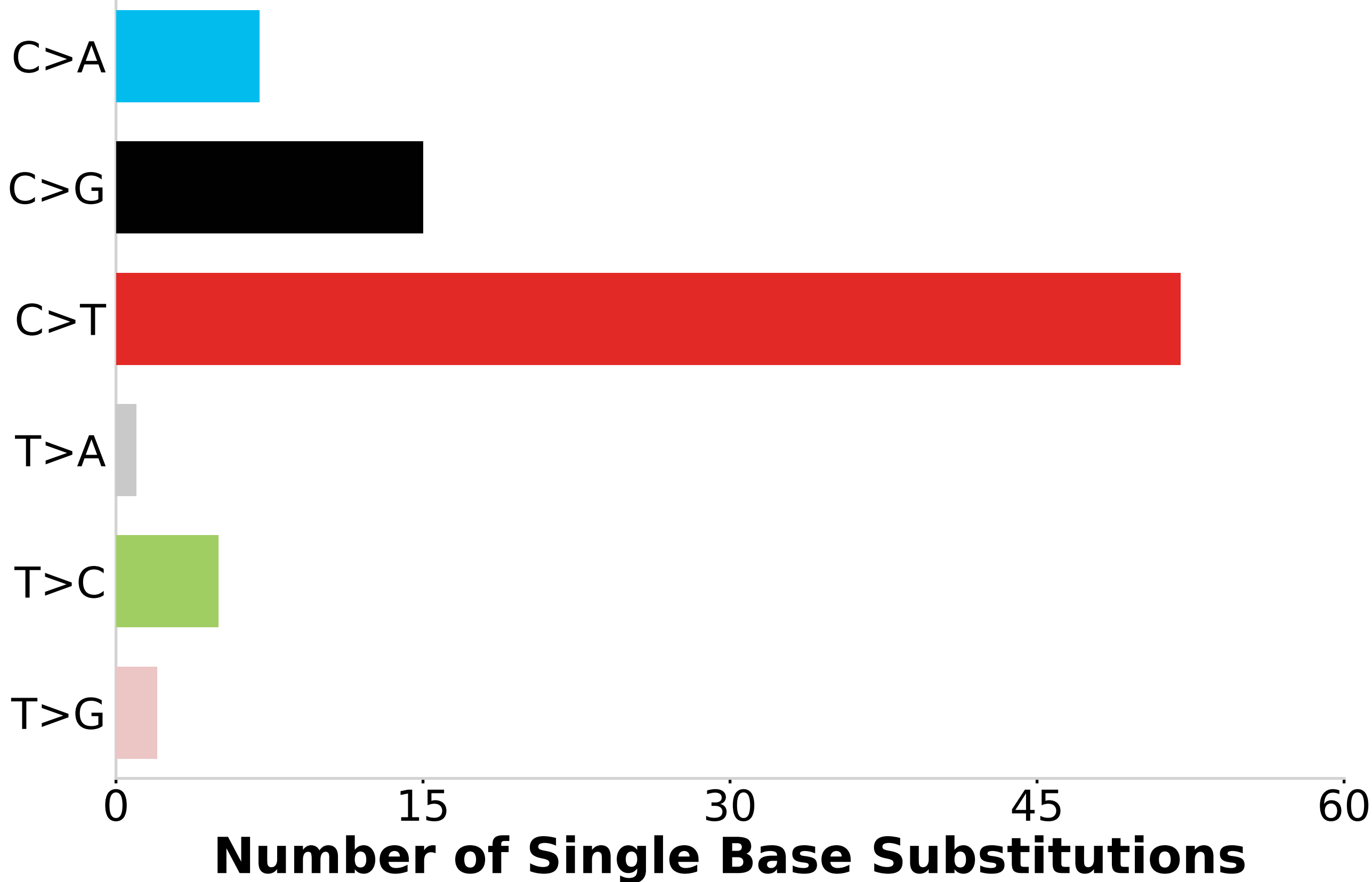
TCGA-XF-A9SH-01A-11D-A391-08: 12 subs



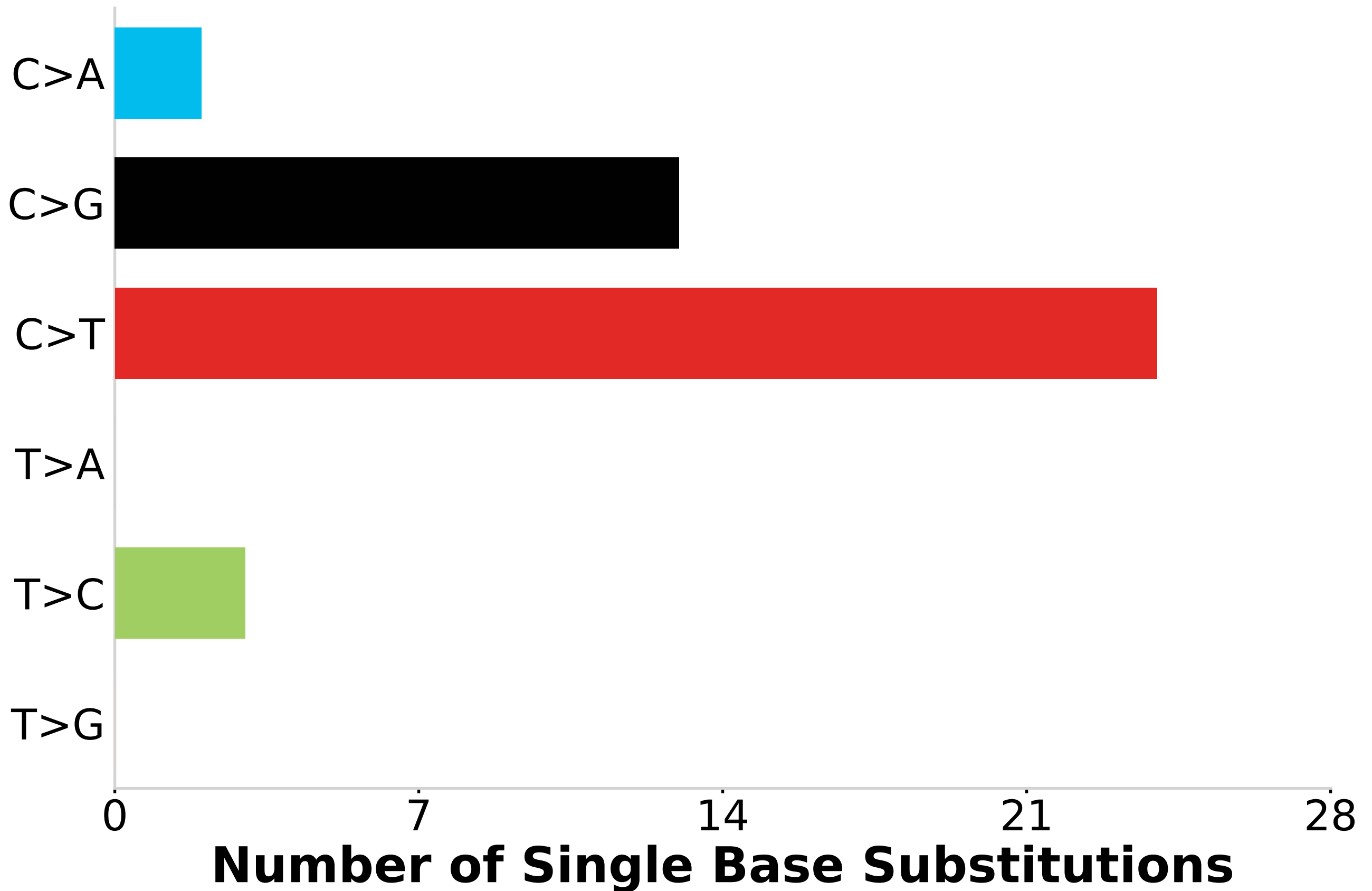
TCGA-XF-A9SI-01A-11D-A391-08: 88 subs



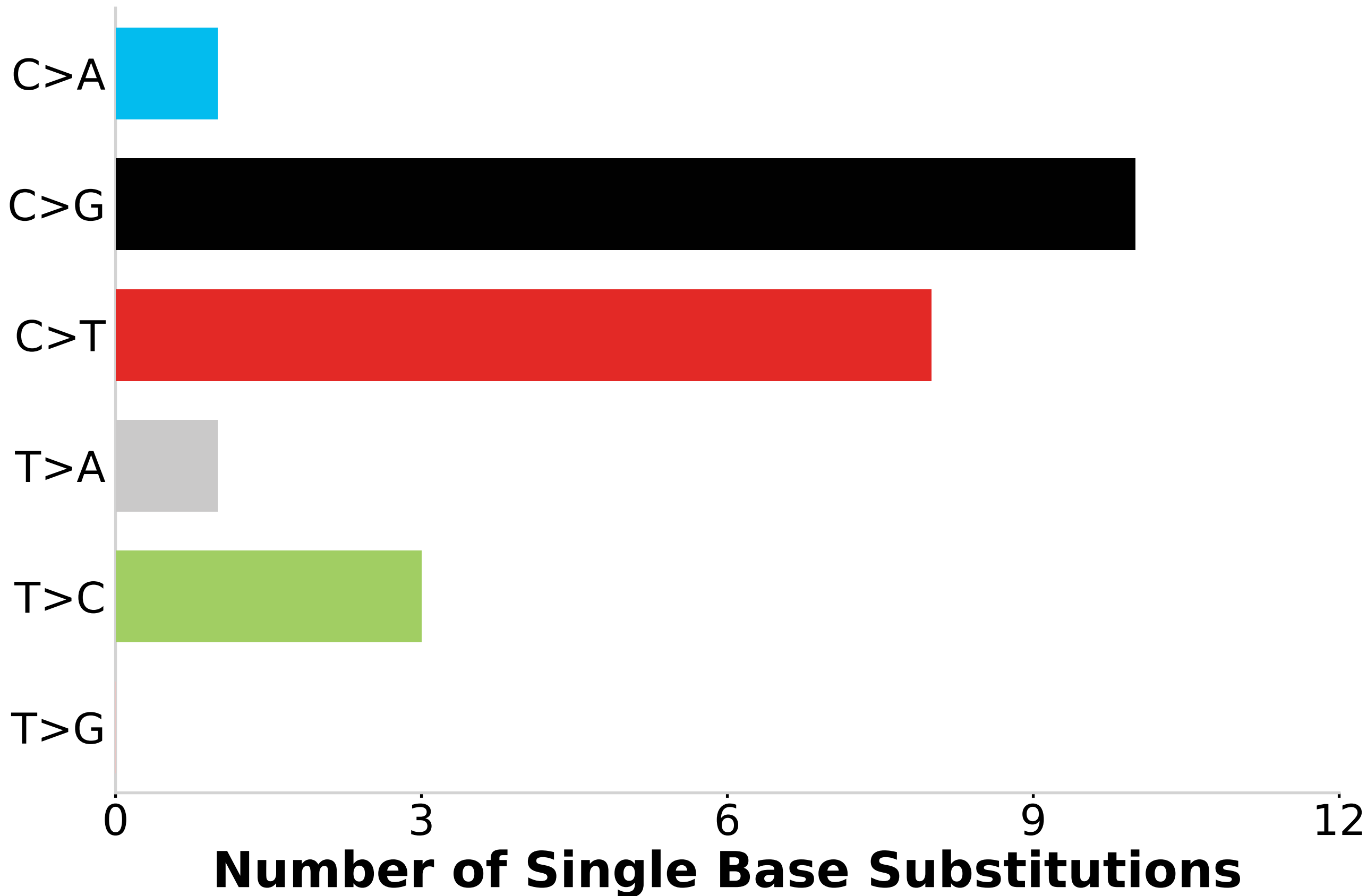
TCGA-XF-A9SJ-01A-11D-A391-08: 82 subs



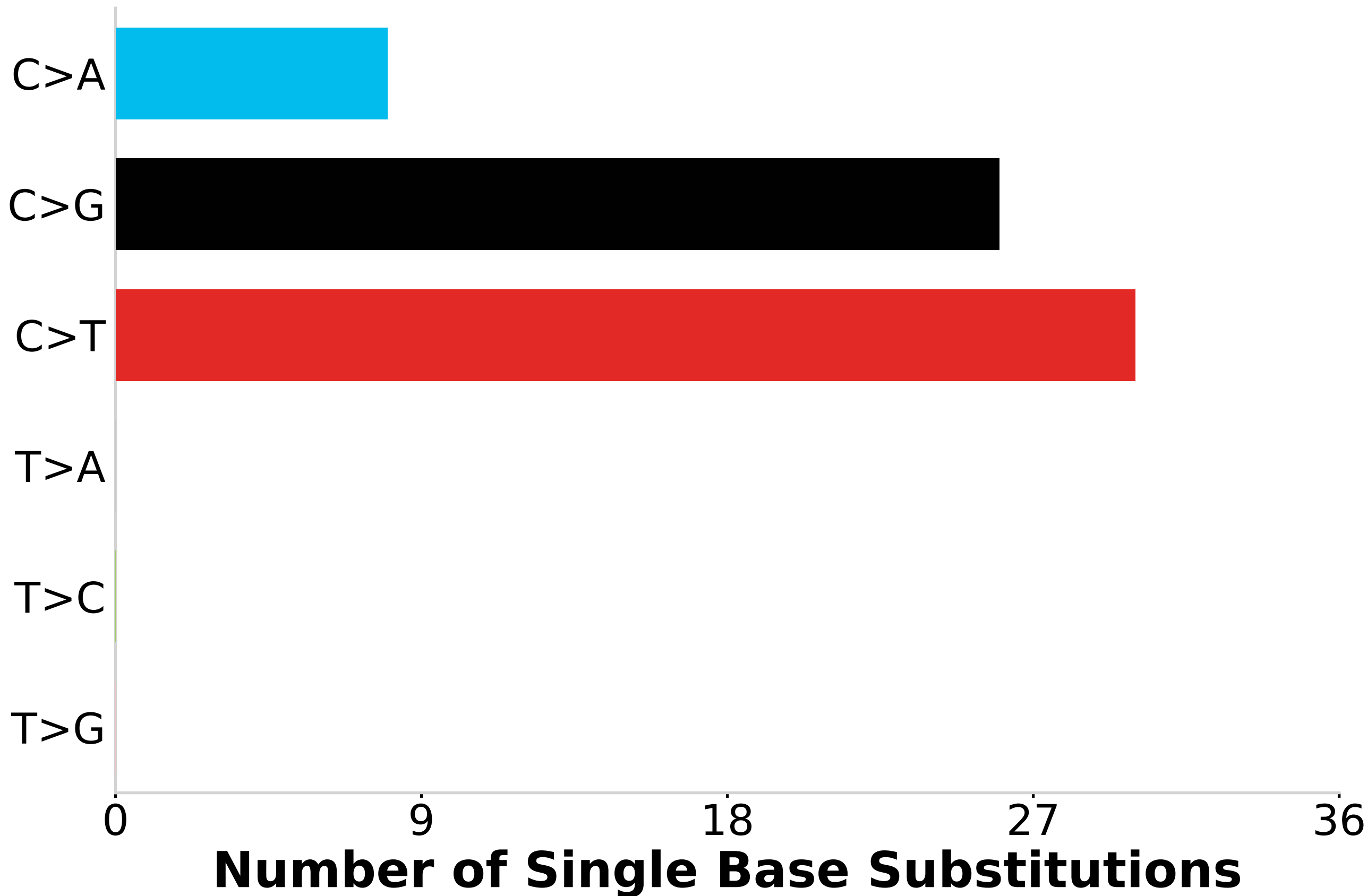
TCGA-XF-A9SK-01A-11D-A42E-08: 42 subs



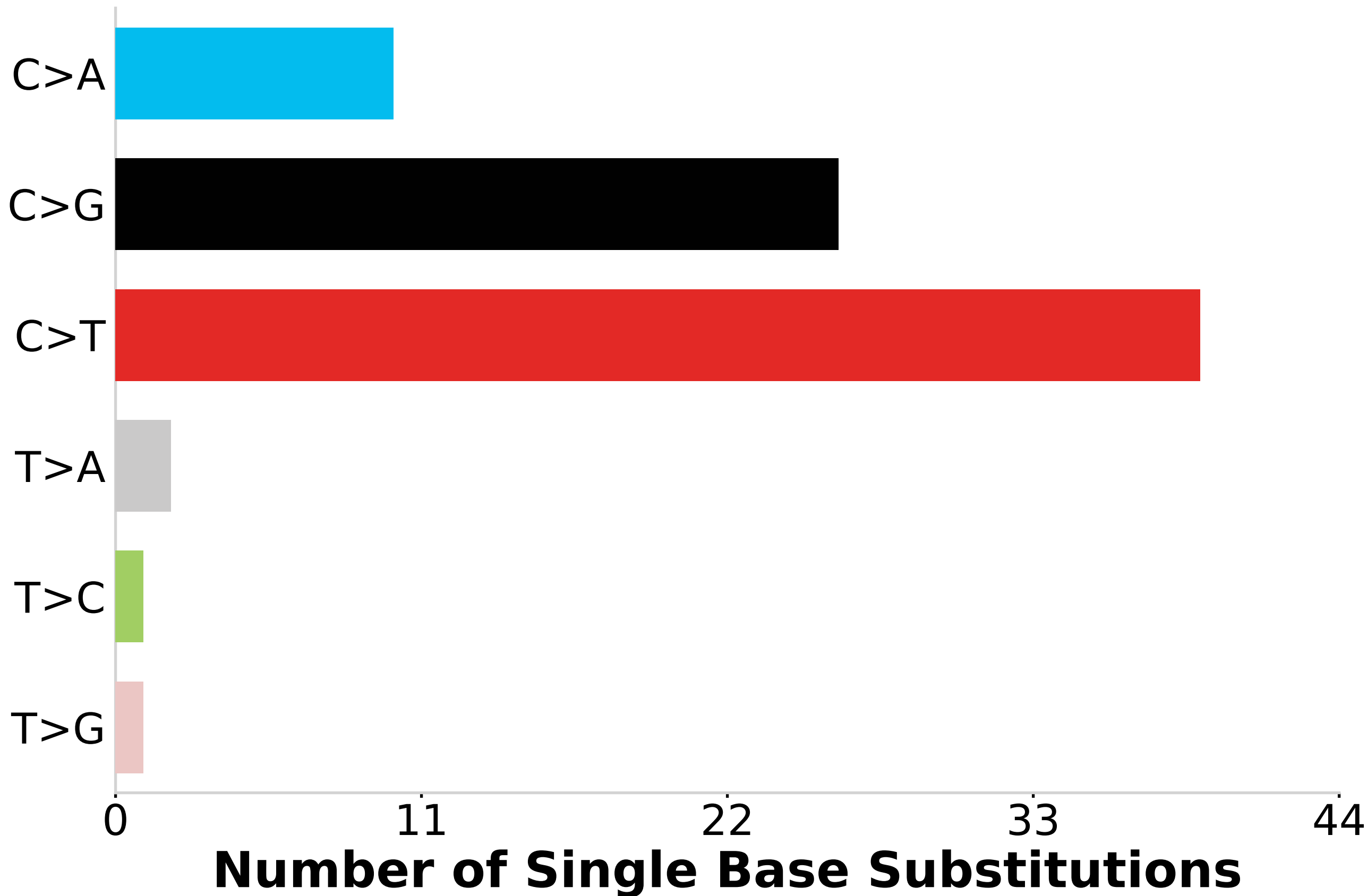
TCGA-XF-A9SL-01A-11D-A391-08: 23 subs



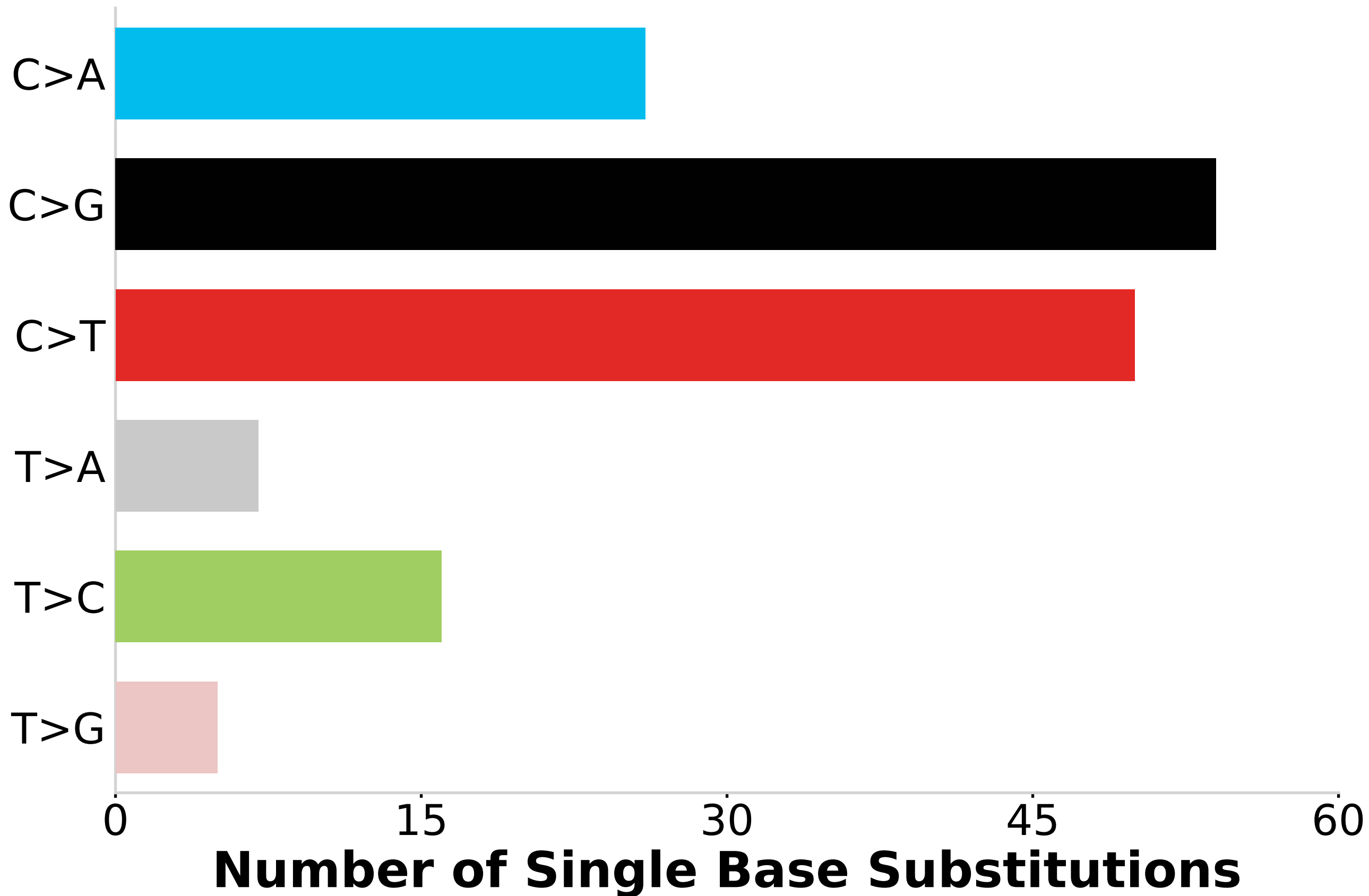
TCGA-XF-A9SM-01A-11D-A42E-08: 64 subs



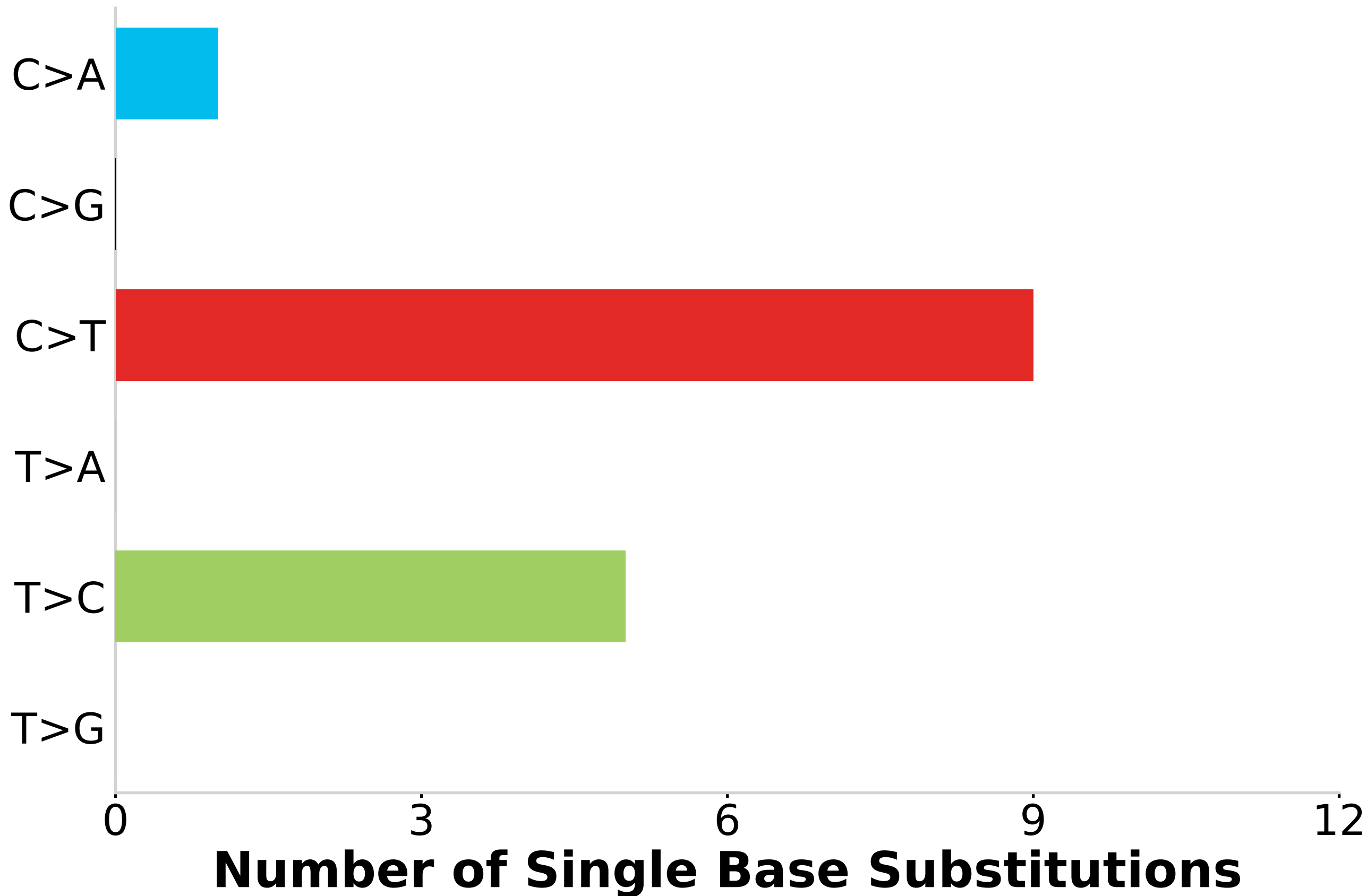
TCGA-XF-A9SP-01A-11D-A391-08: 79 subs



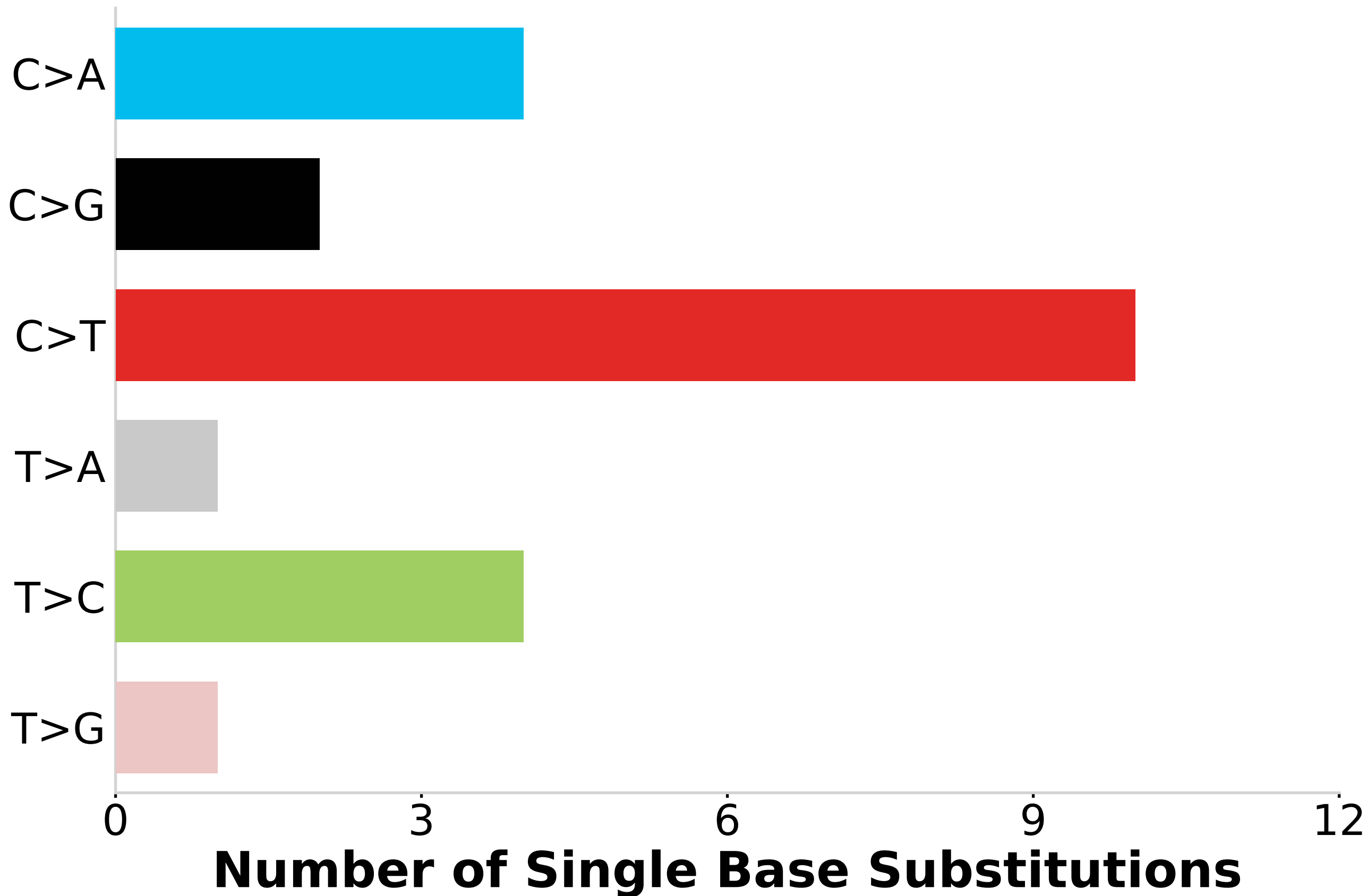
TCGA-XF-A9ST-01A-11D-A42E-08: 158 subs



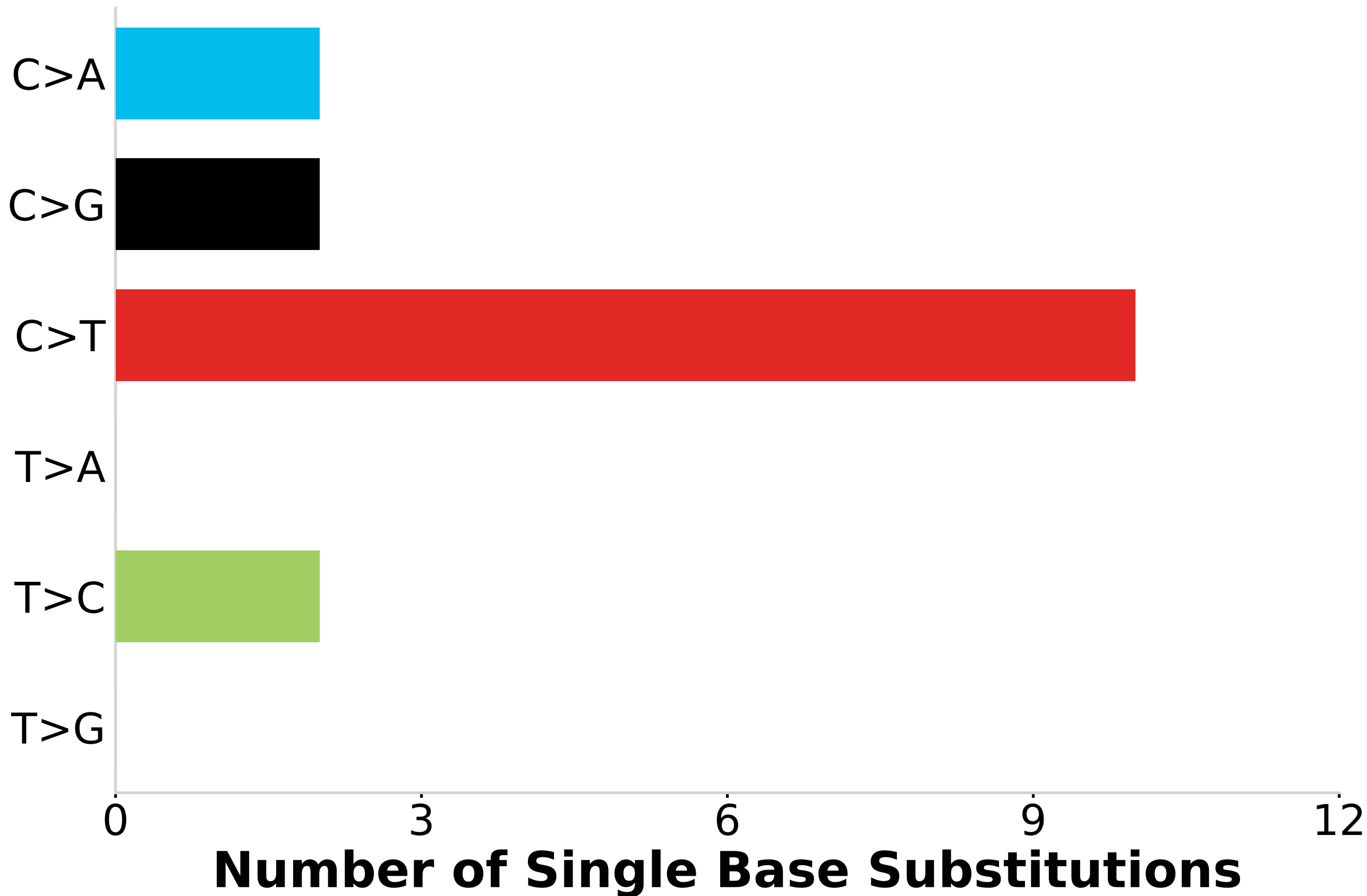
TCGA-XF-A9SU-01A-31D-A391-08: 15 subs



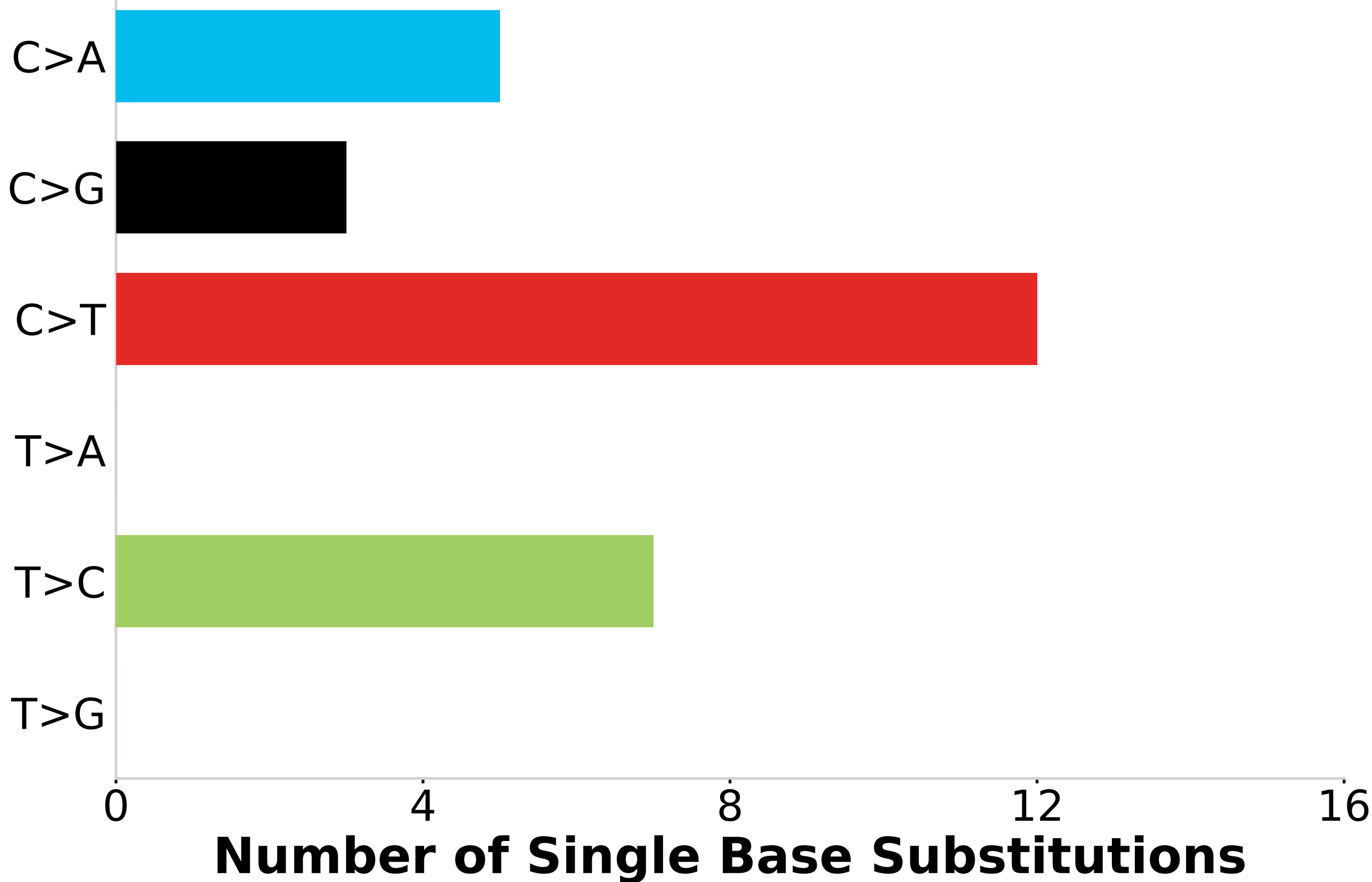
TCGA-XF-A9SV-01A-21D-A42E-08: 22 subs



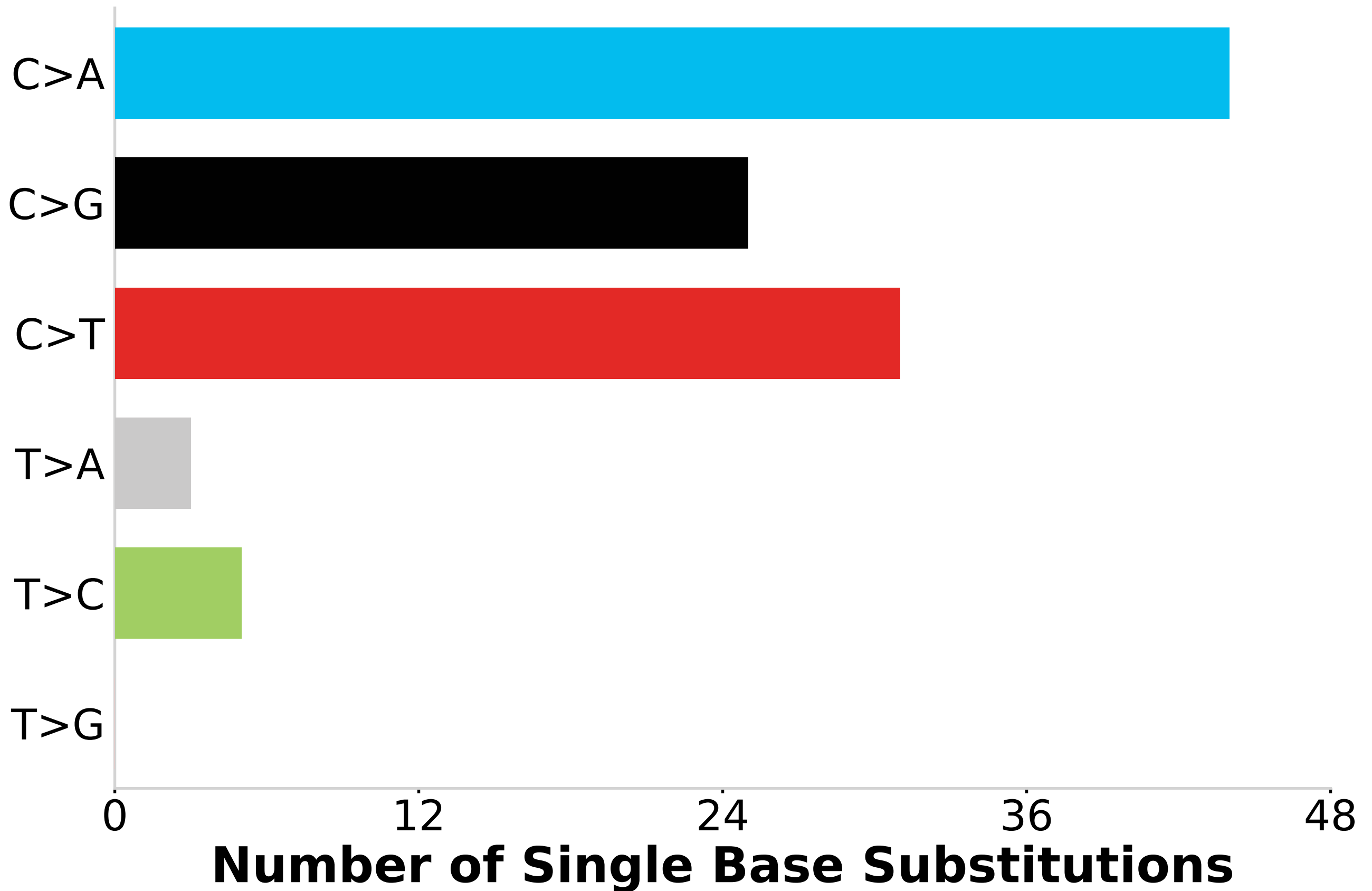
TCGA-XF-A9SW-01A-11D-A42E-08: 16 subs



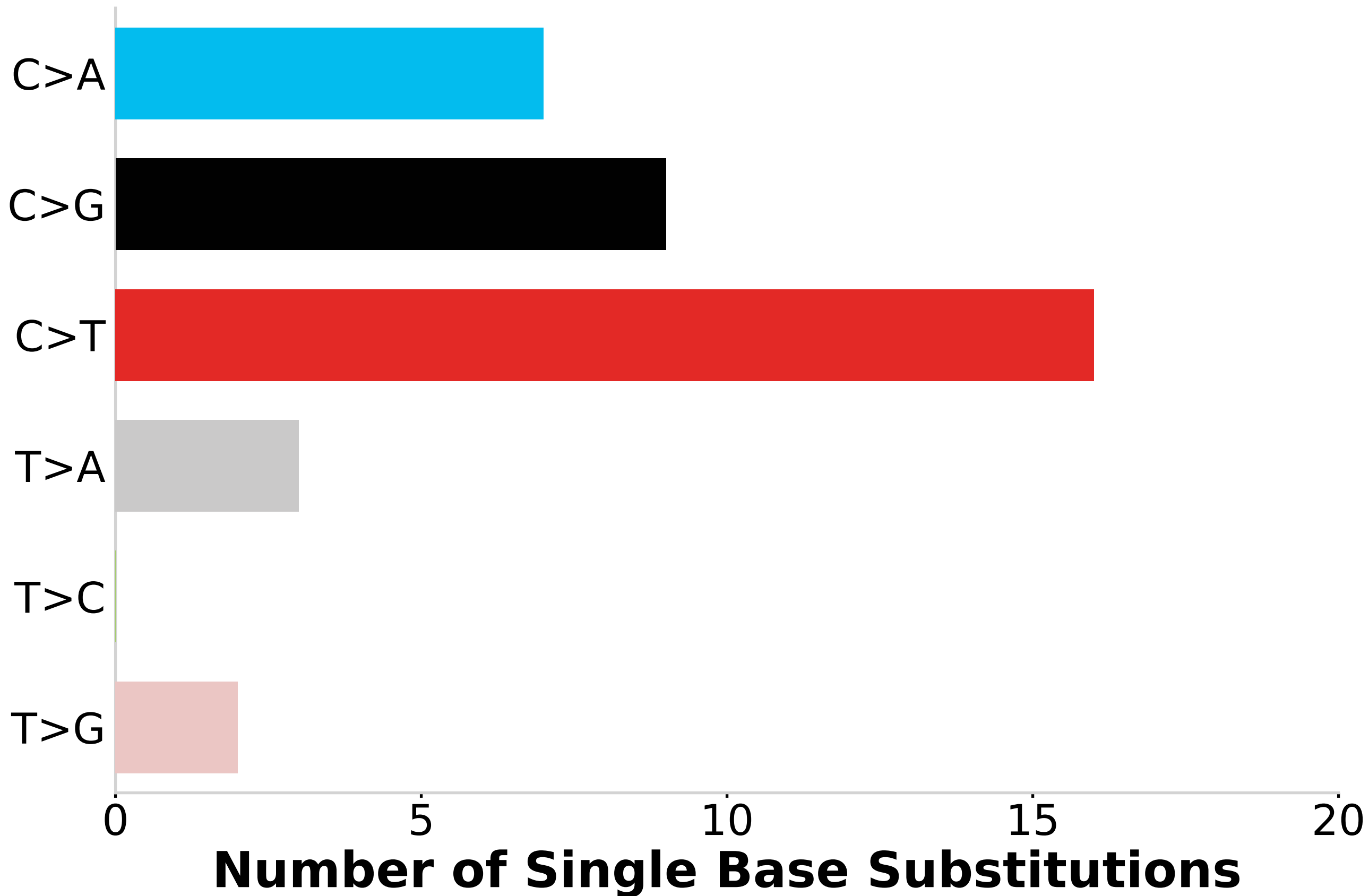
TCGA-XF-A9SX-01A-21D-A391-08: 27 subs



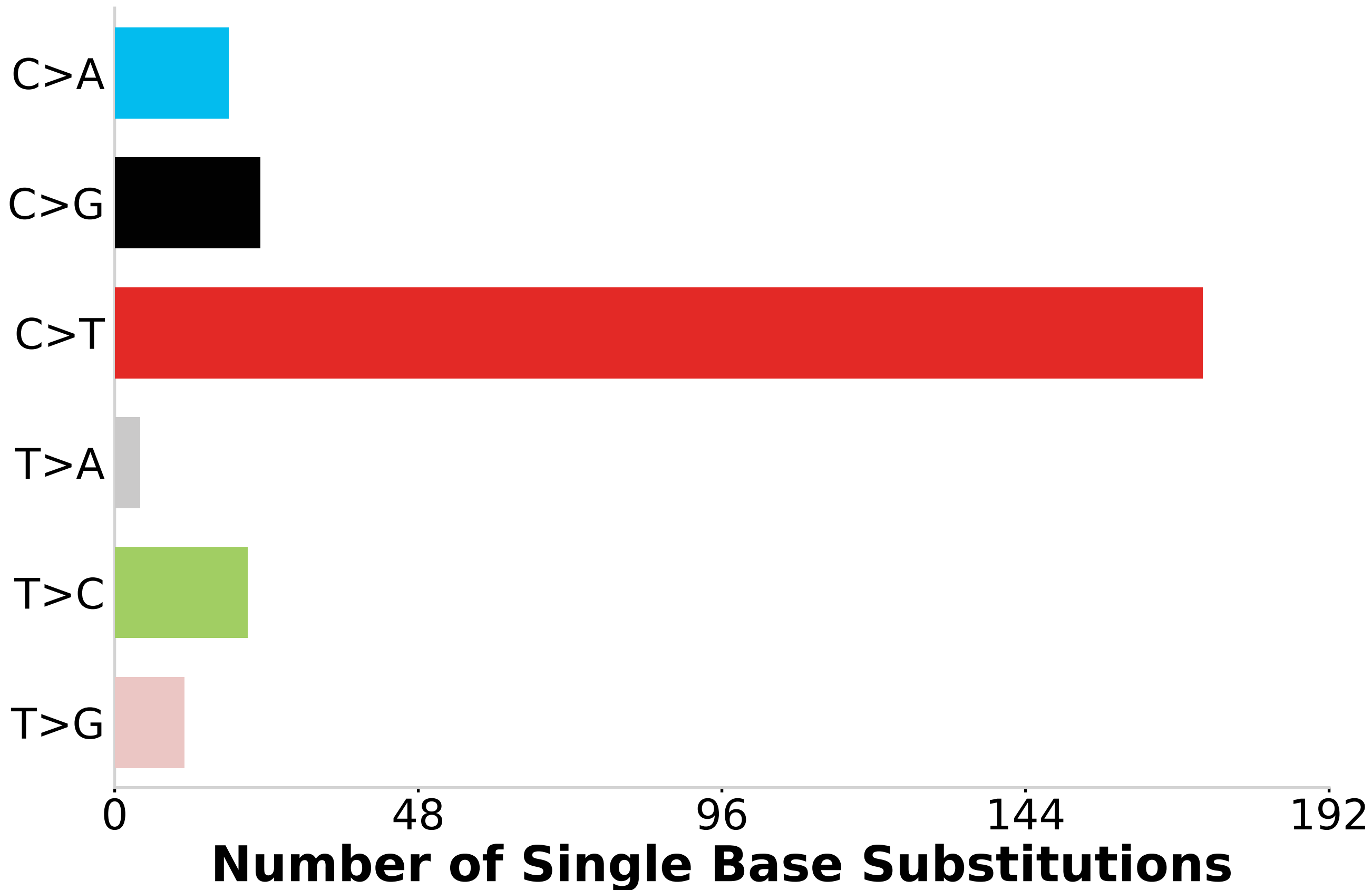
TCGA-XF-A9SY-01A-21D-A42E-08: 108 subs



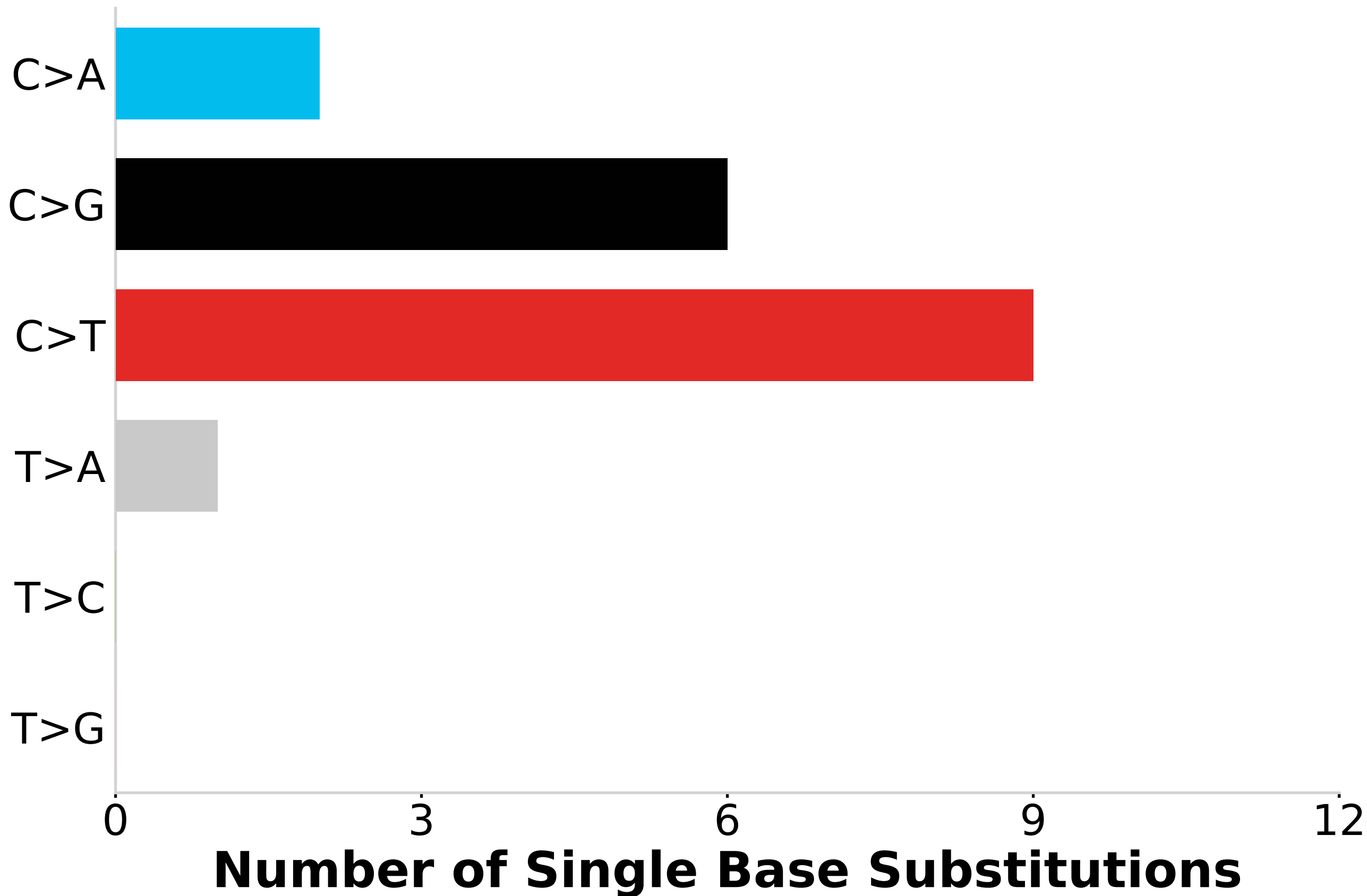
TCGA-XF-A9SZ-01A-11D-A391-08: 37 subs



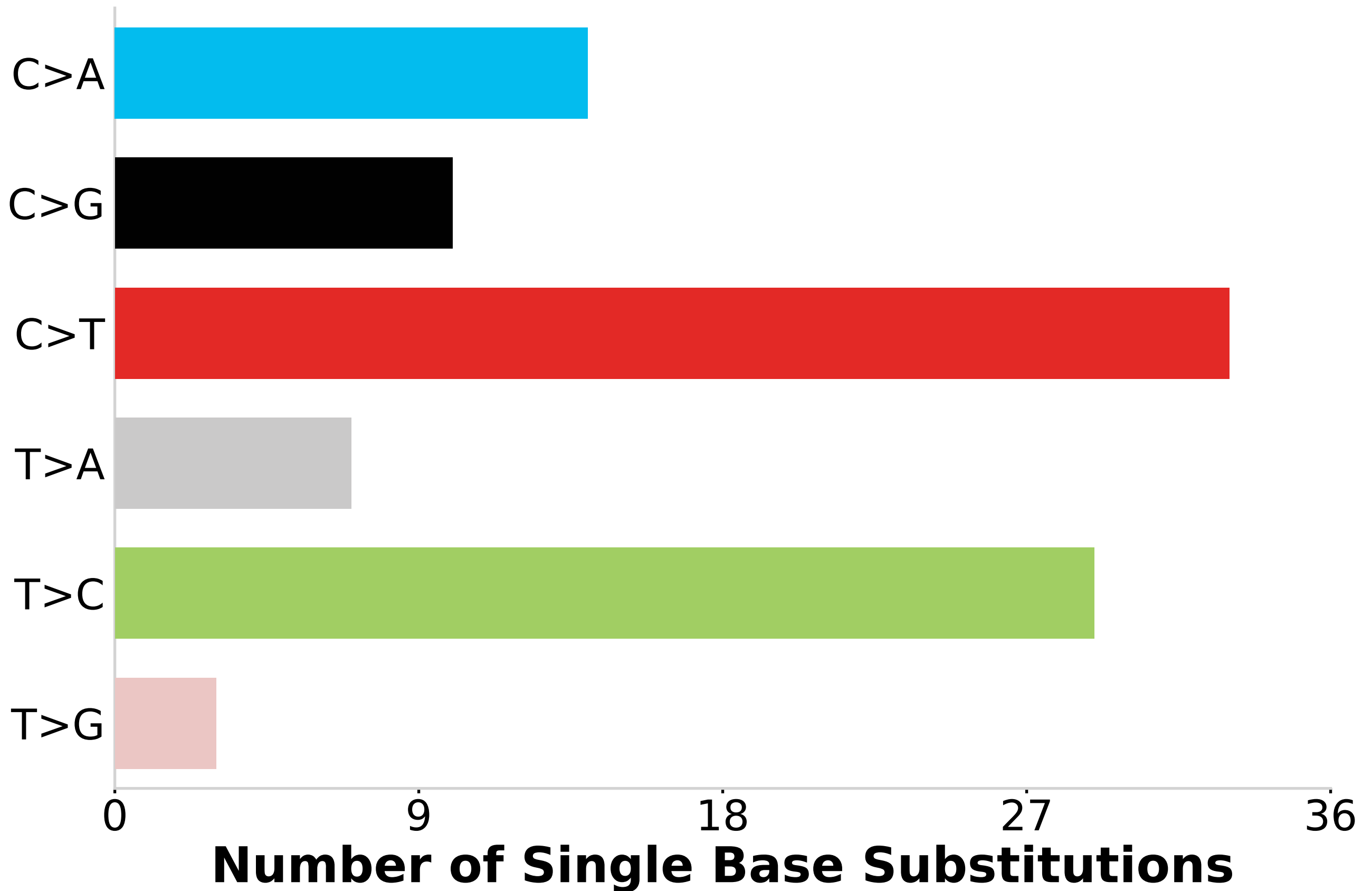
TCGA-XF-A9T0-01A-11D-A391-08: 249 sub



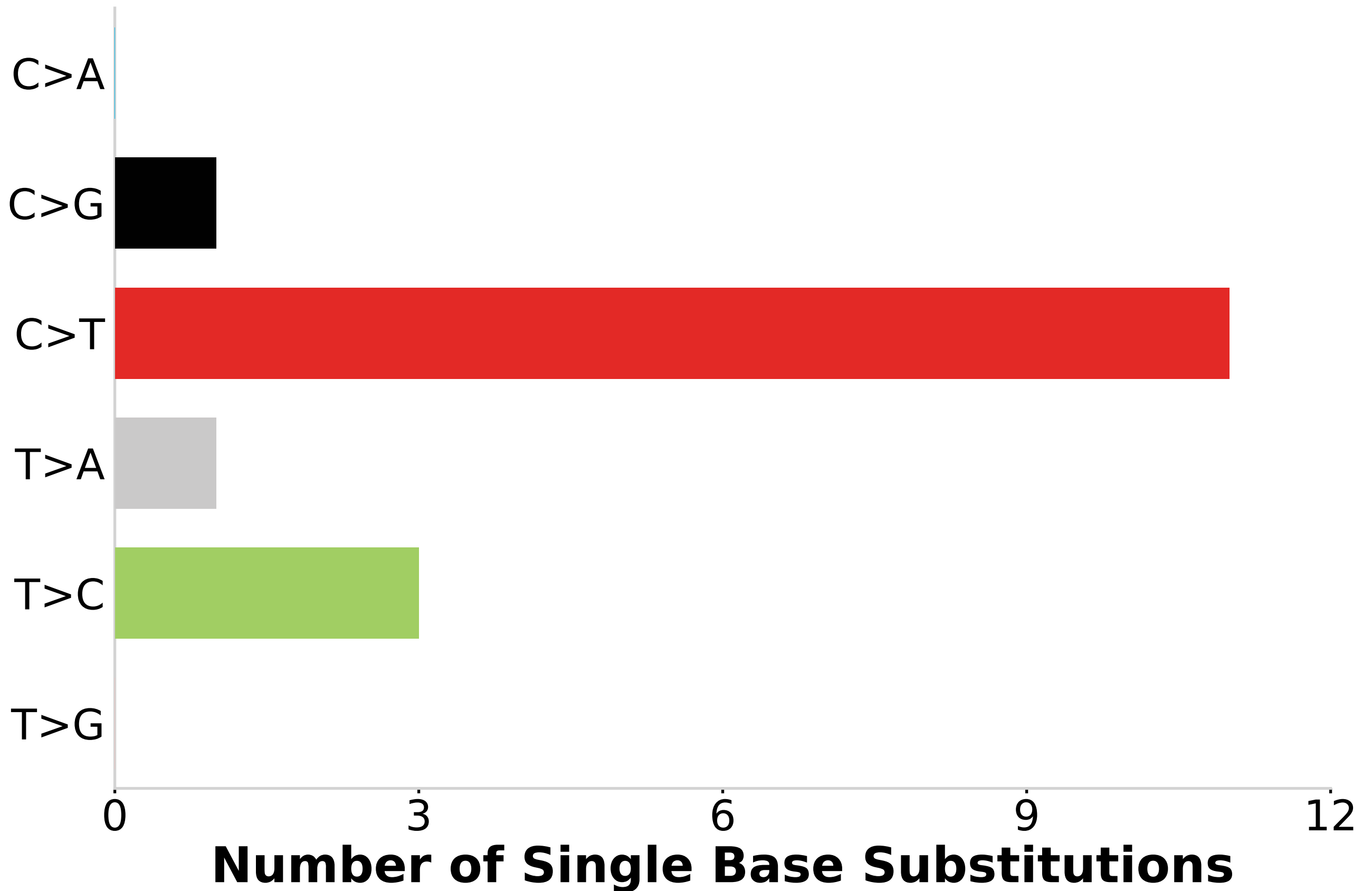
TCGA-XF-A9T2-01A-11D-A42E-08: 18 subs



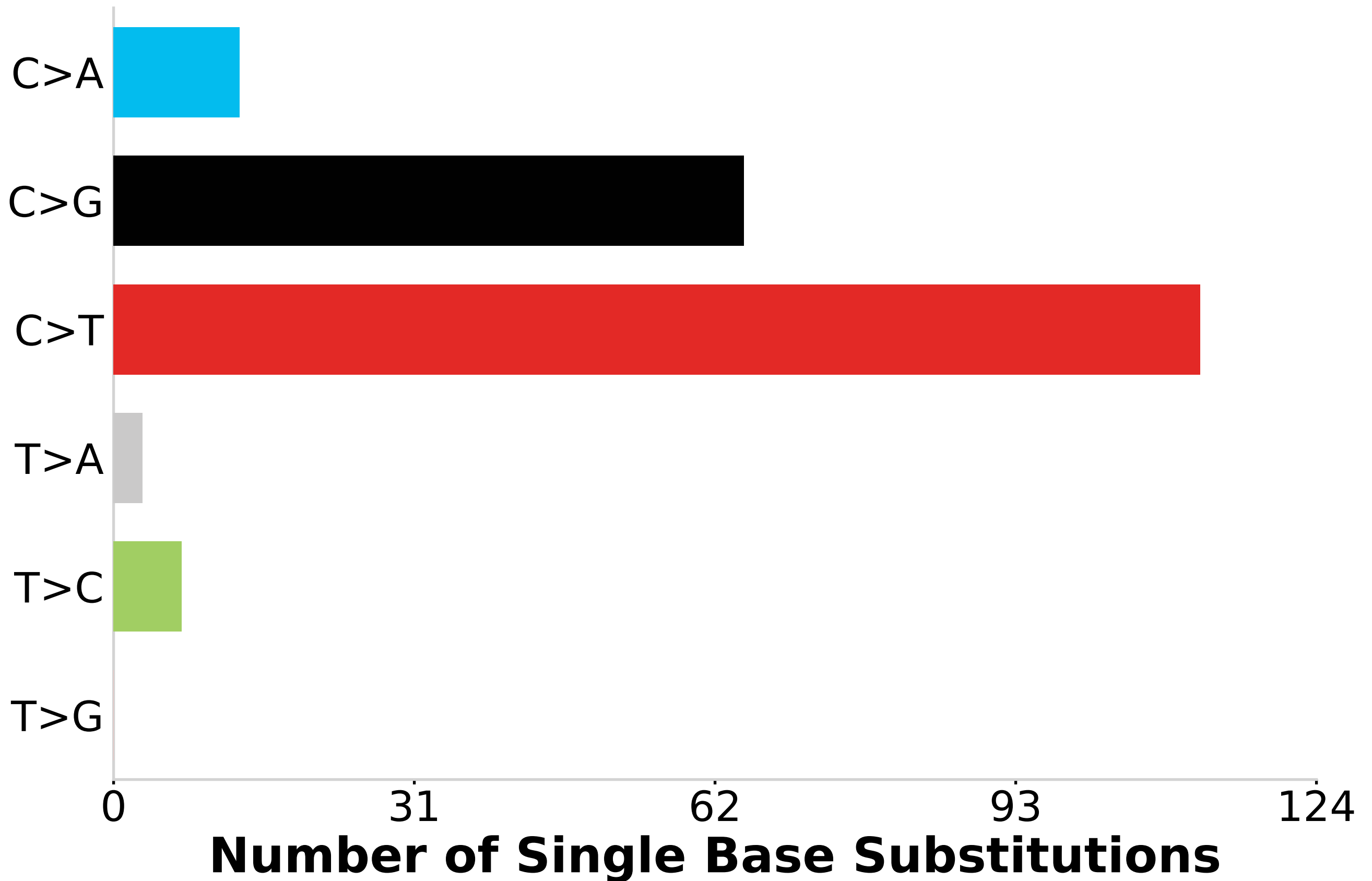
TCGA-XF-A9T3-01A-11D-A42E-08: 96 subs



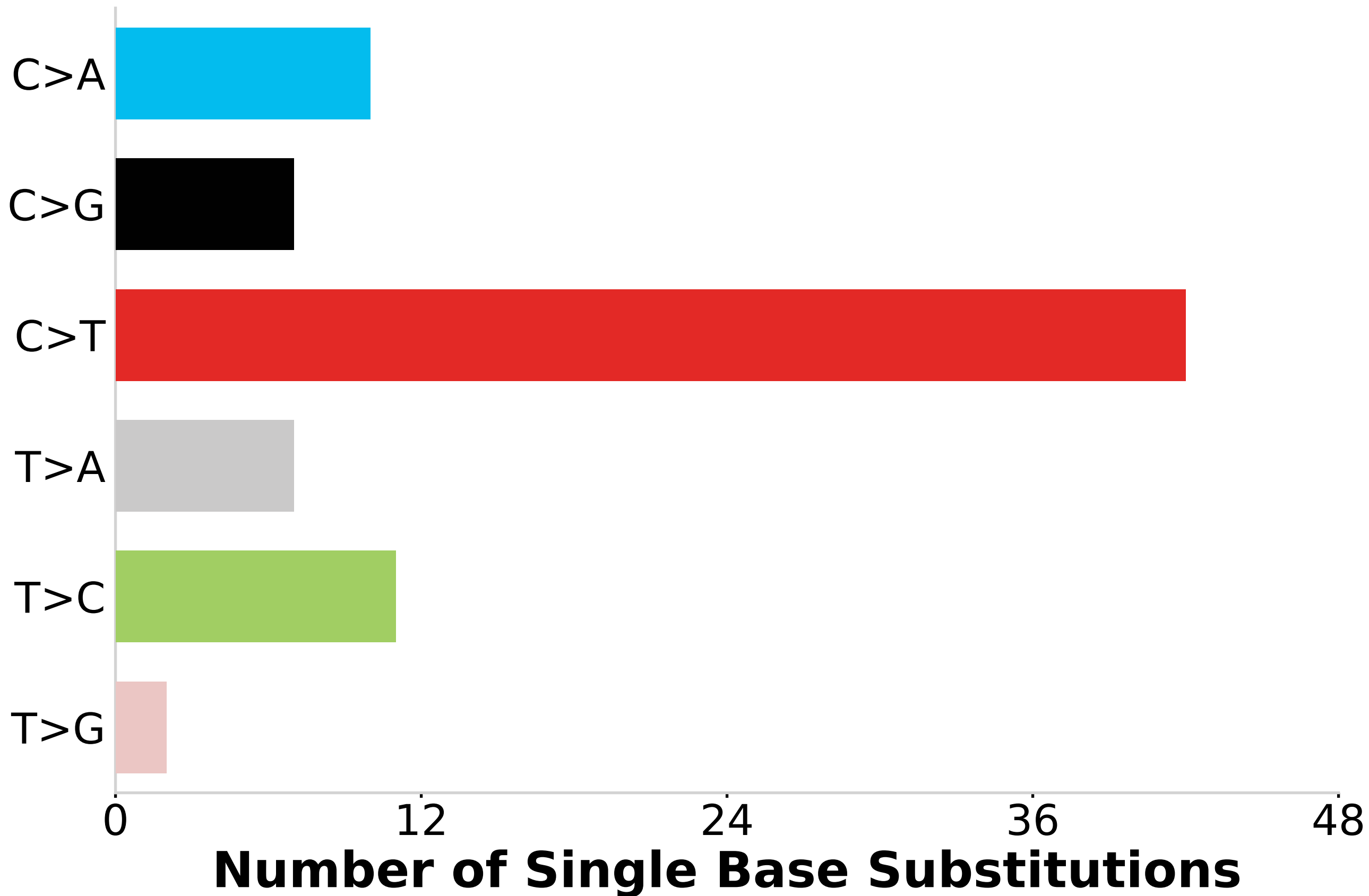
TCGA-XF-A9T4-01A-11D-A391-08: 16 subs



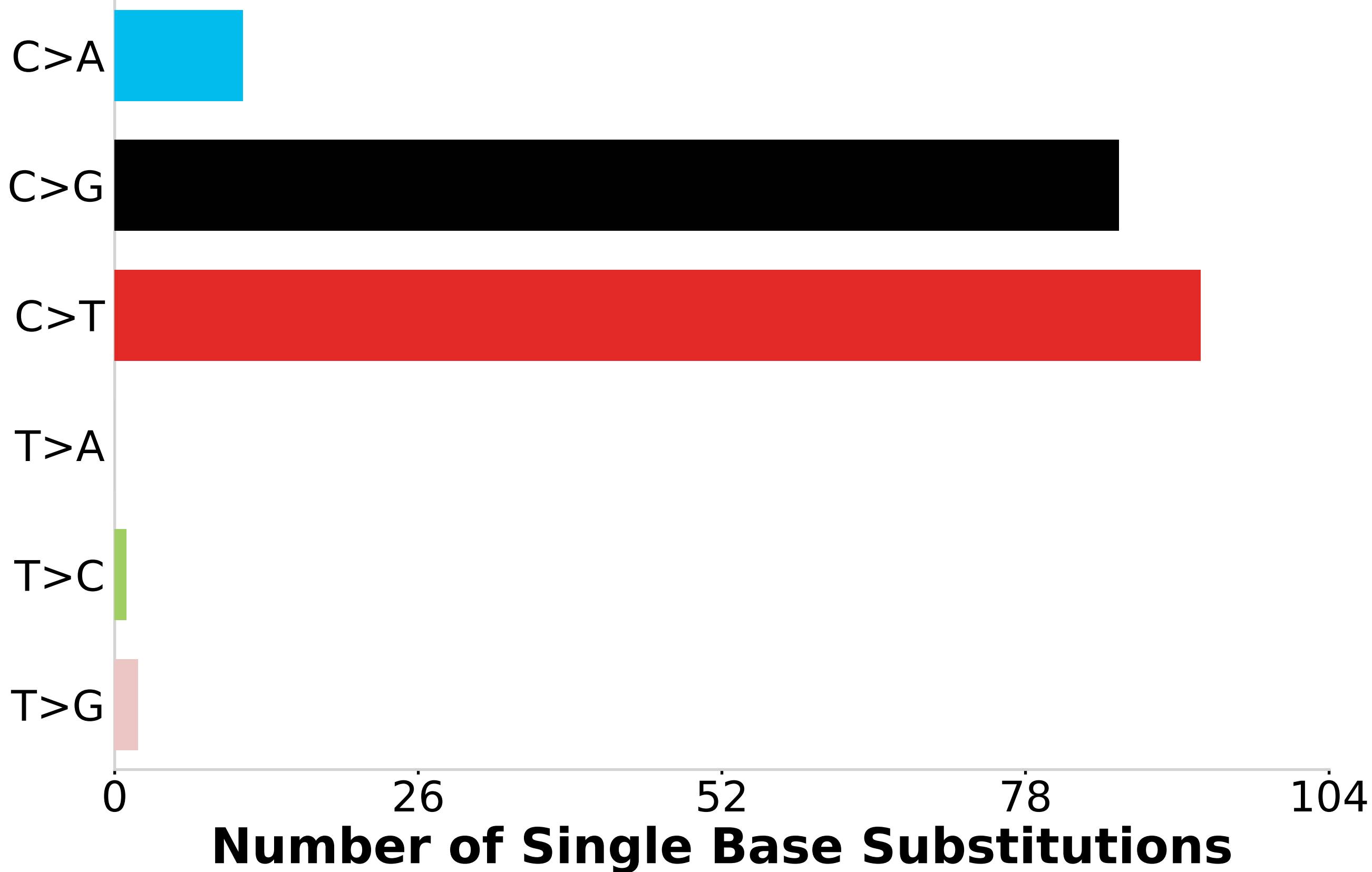
TCGA-XF-A9T5-01A-11D-A42E-08: 200 sub



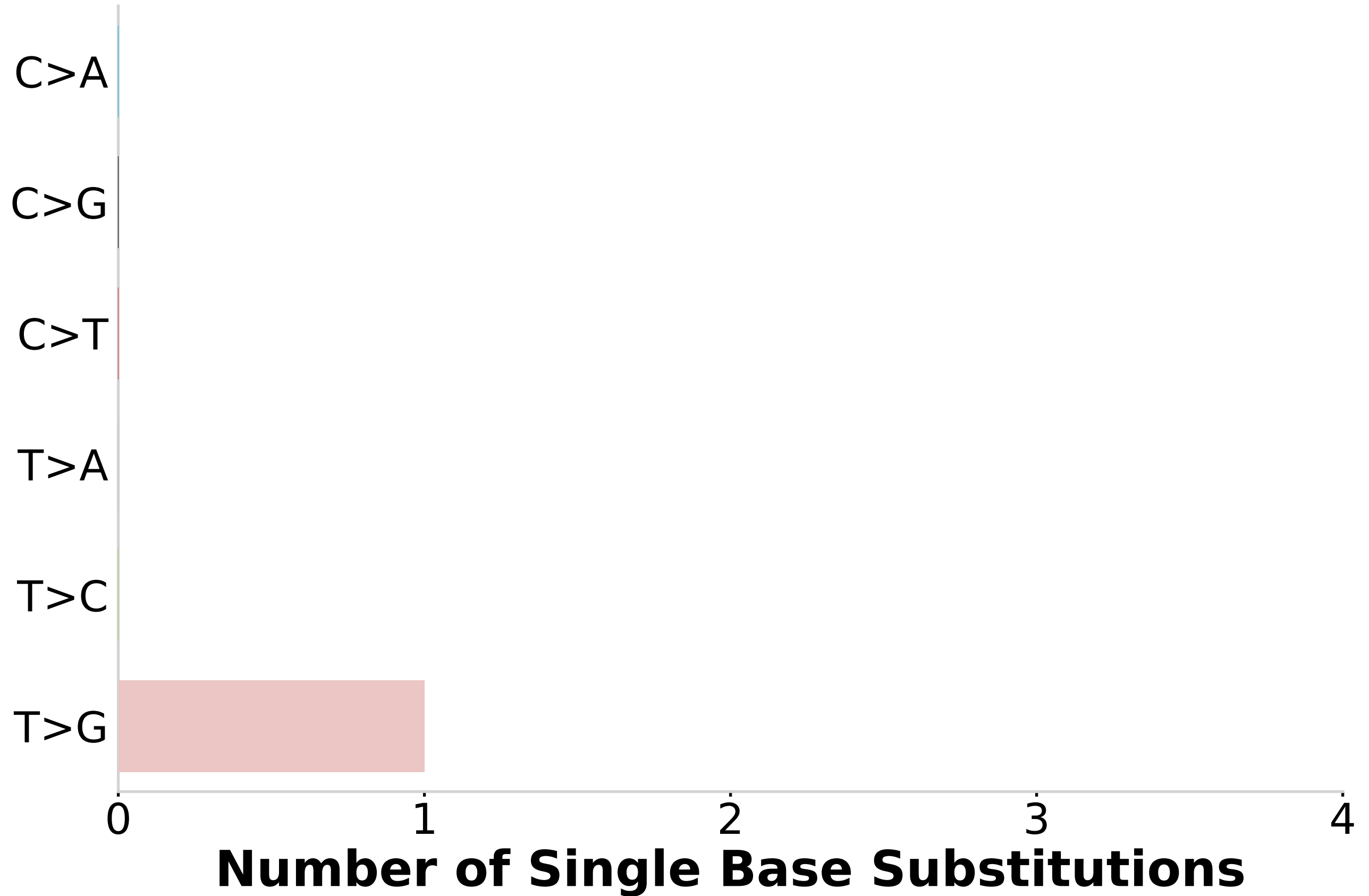
TCGA-XF-A9T6-01A-11D-A42E-08: 79 subs



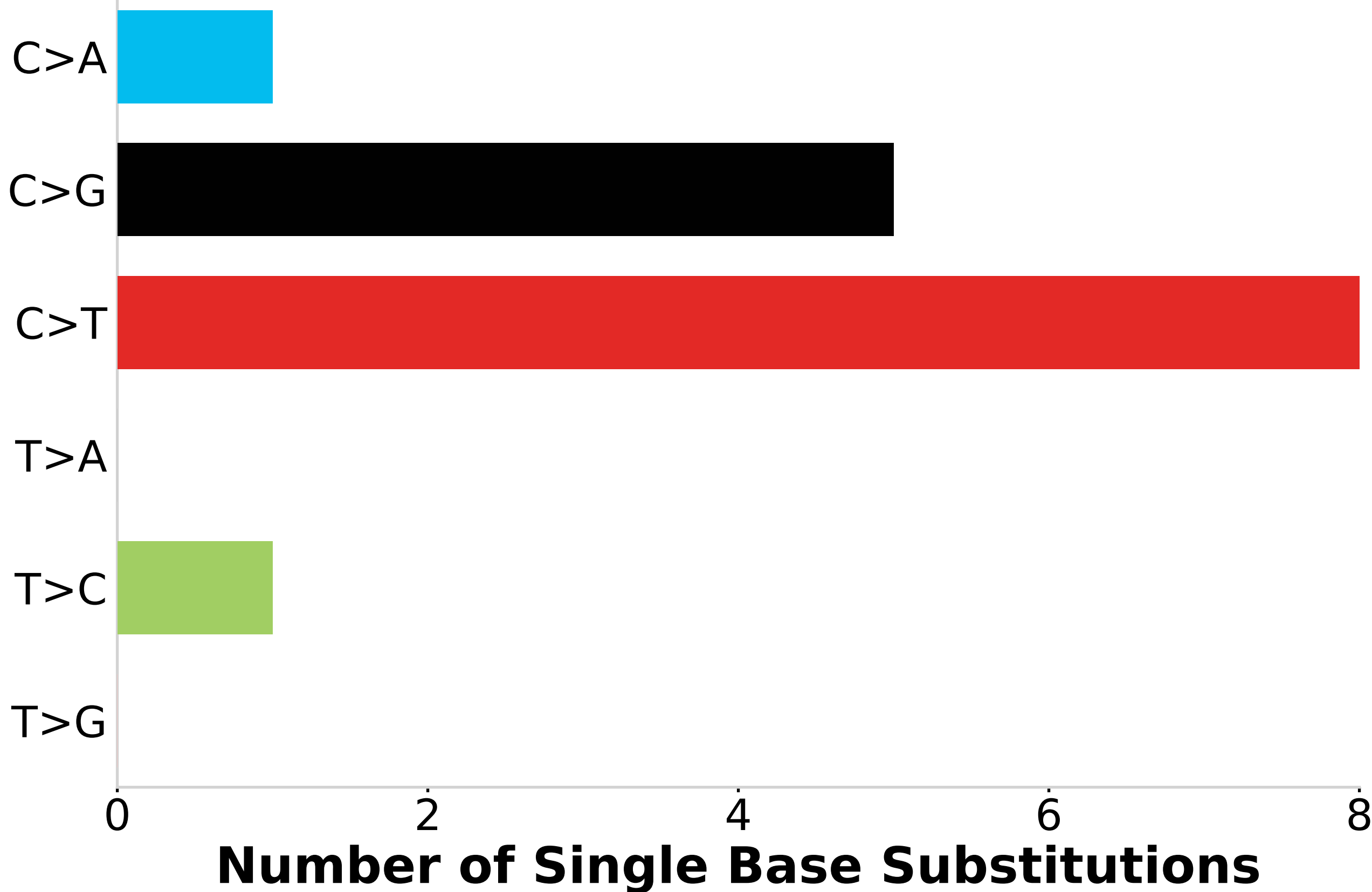
TCGA-XF-A9T8-01A-11D-A391-08: 193 sub



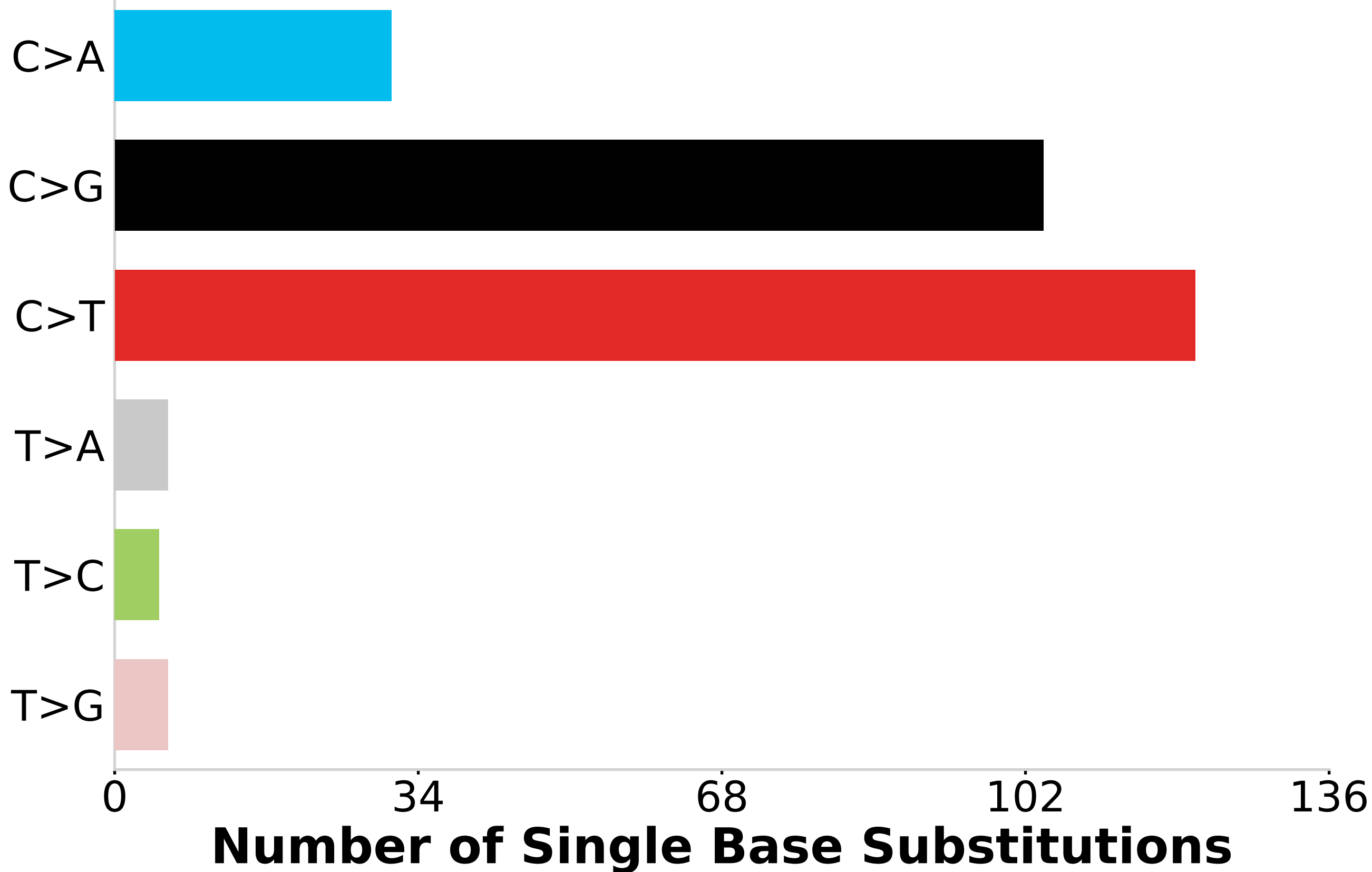
TCGA-XF-AAME-01A-12D-A42E-08: 1 subs



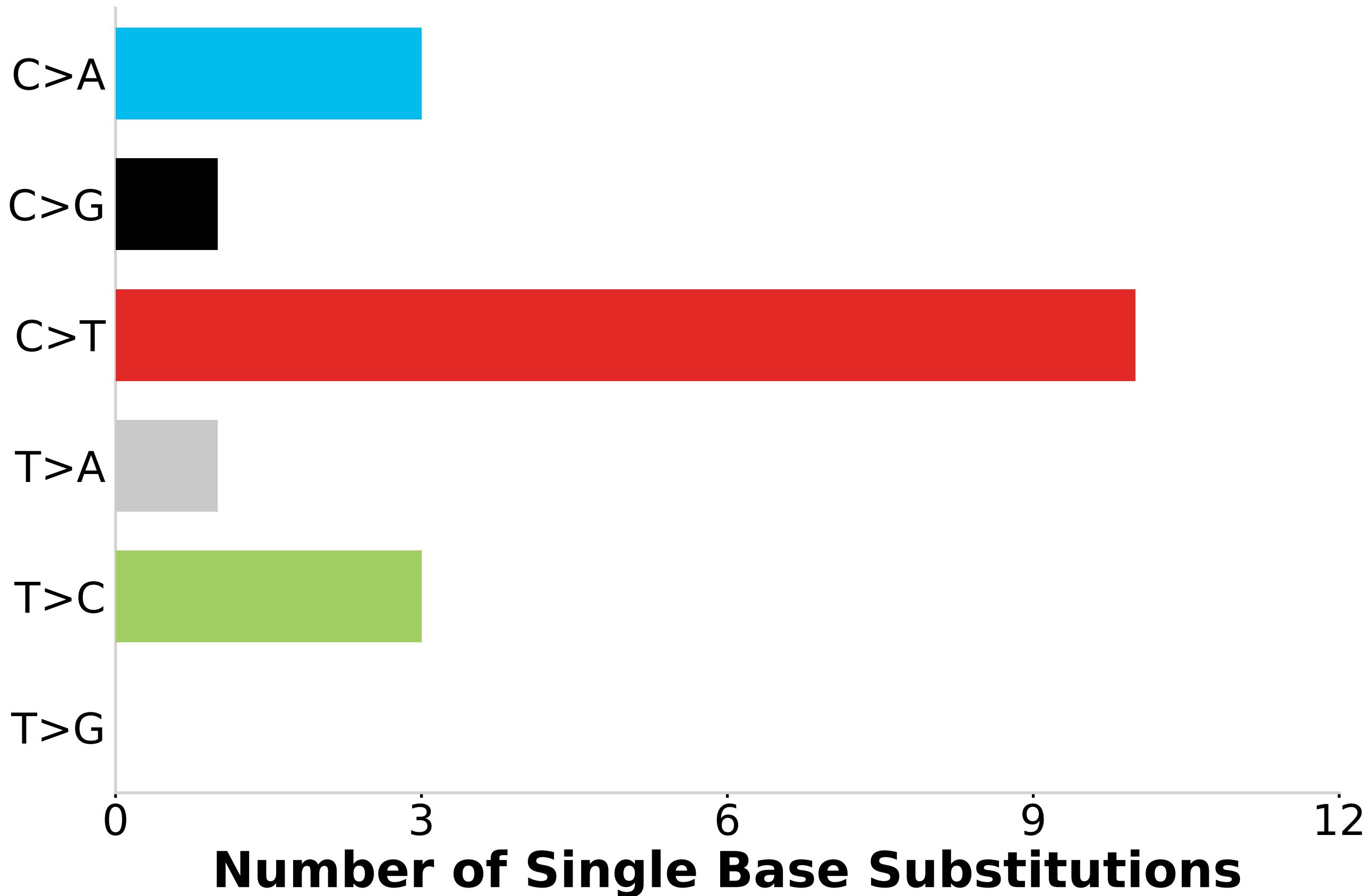
TCGA-XF-AAMF-01A-21D-A42E-08: 15 subs



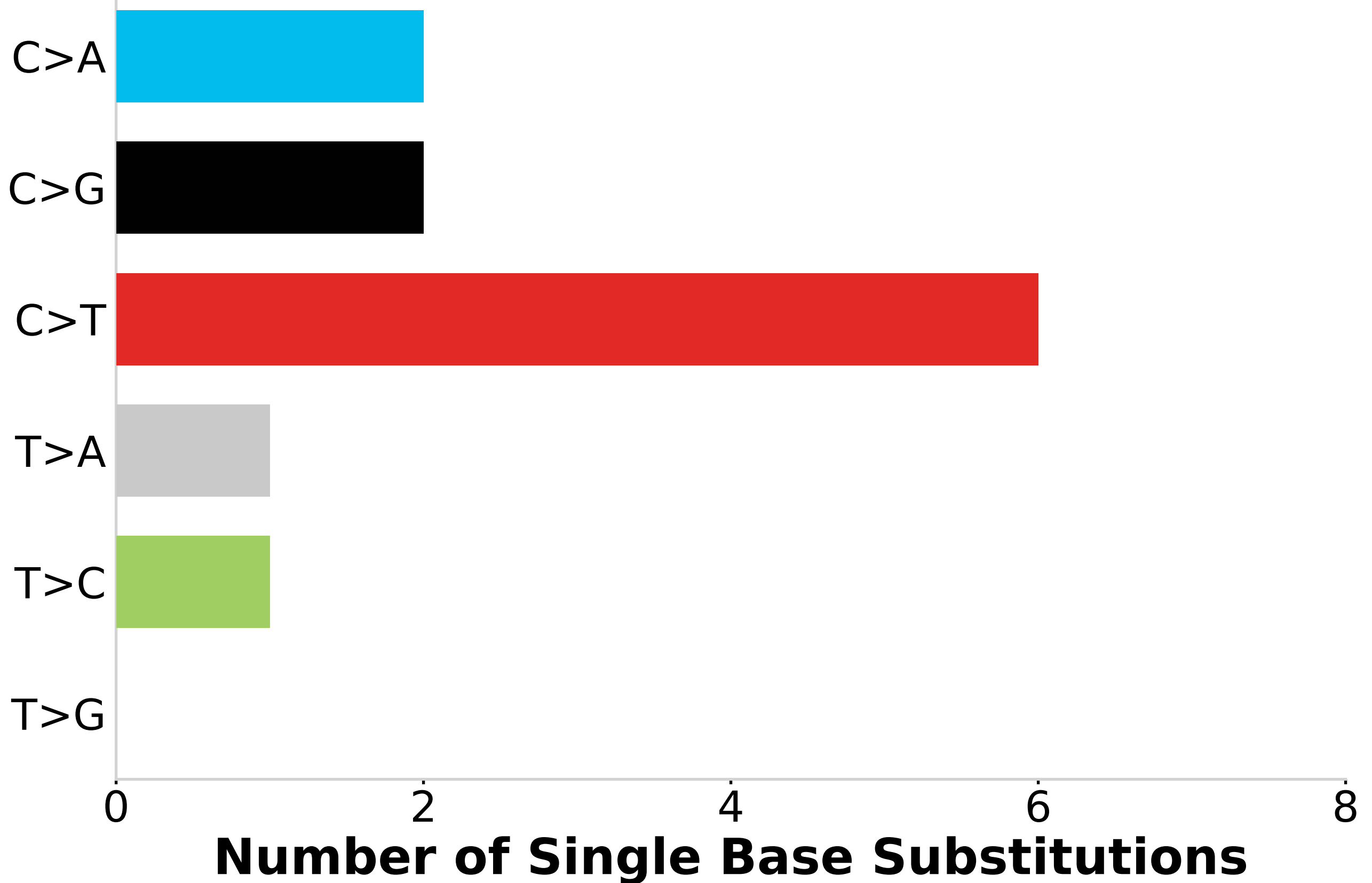
TCGA-XF-AAMG-01A-11D-A42E-08: 273 sub



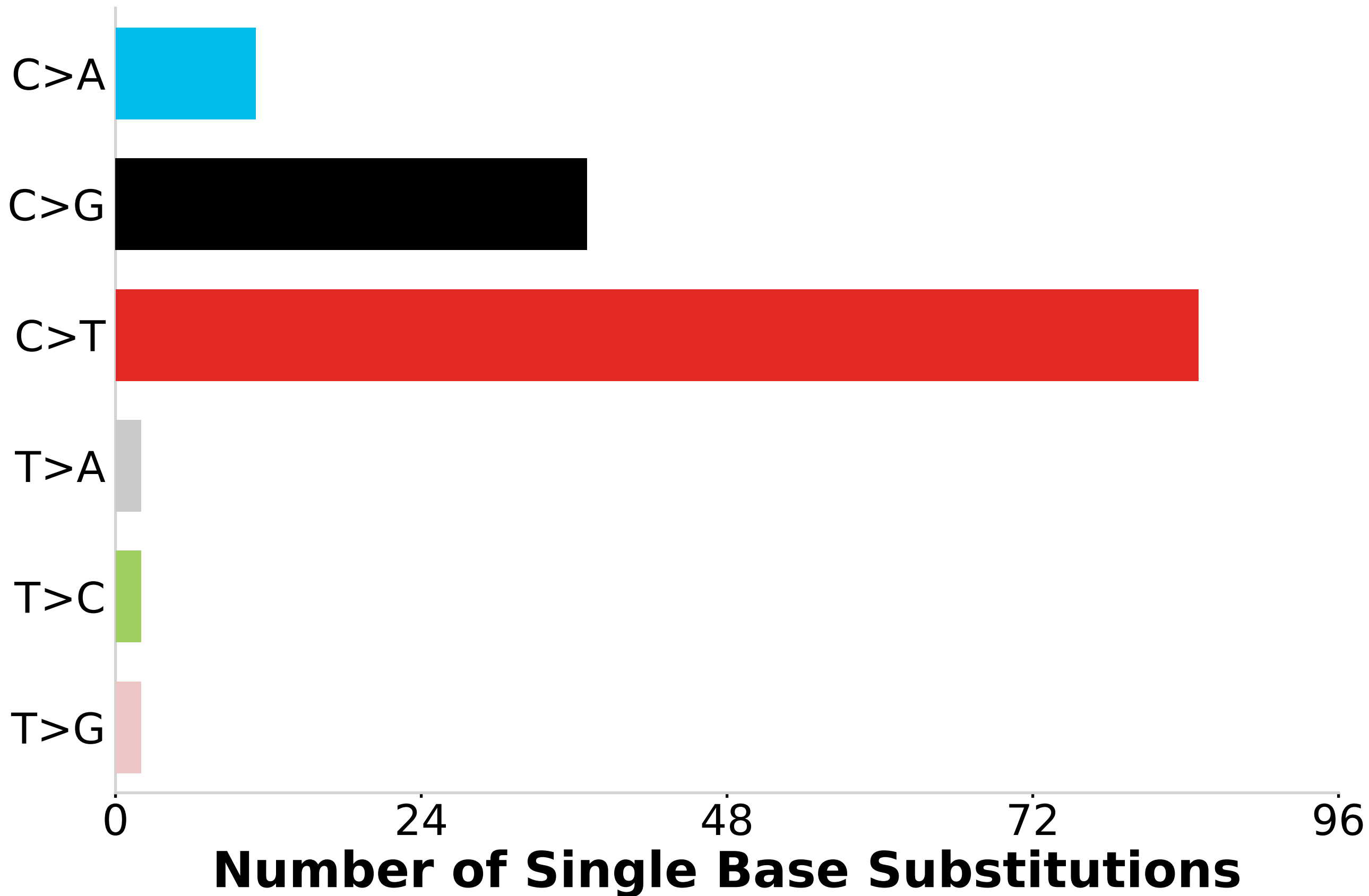
TCGA-XF-AAMH-01A-11D-A42E-08: 18 subs



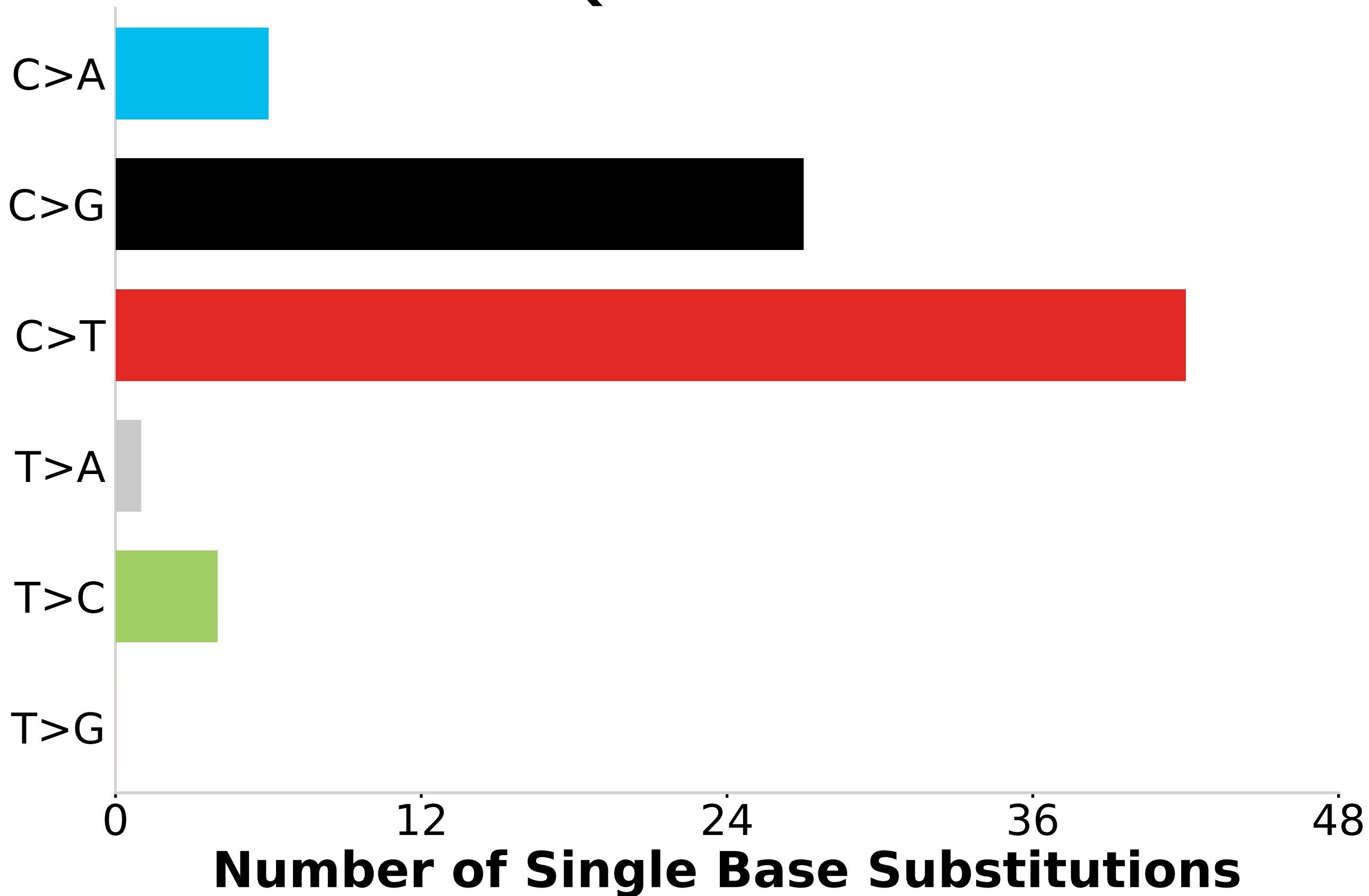
TCGA-XF-AAMJ-01A-11D-A42E-08: 12 subs



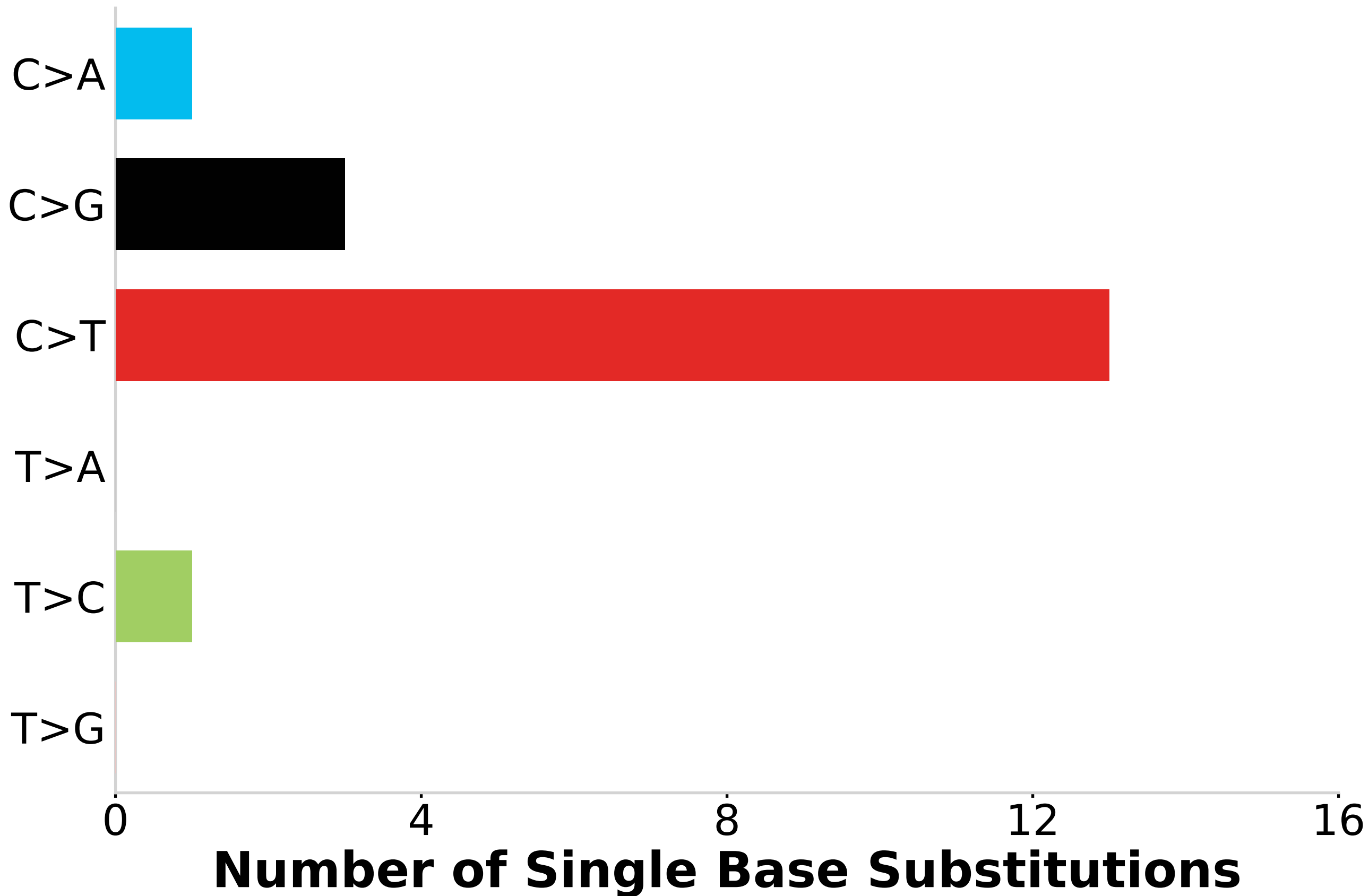
TCGA-XF-AAML-01A-11D-A42E-08: 139 sub



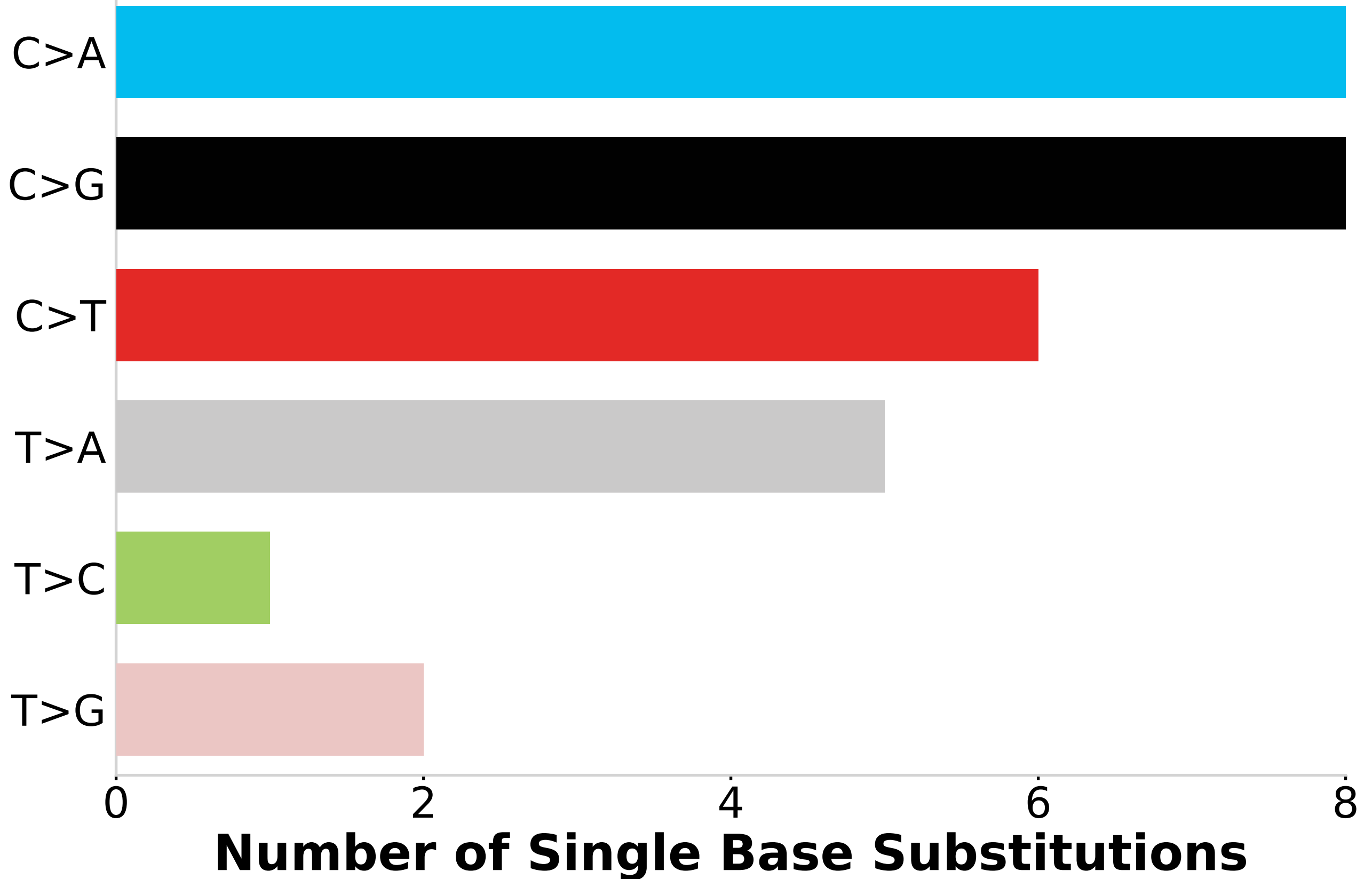
TCGA-XF-AAMQ-01A-11D-A42E-08: 80 subs



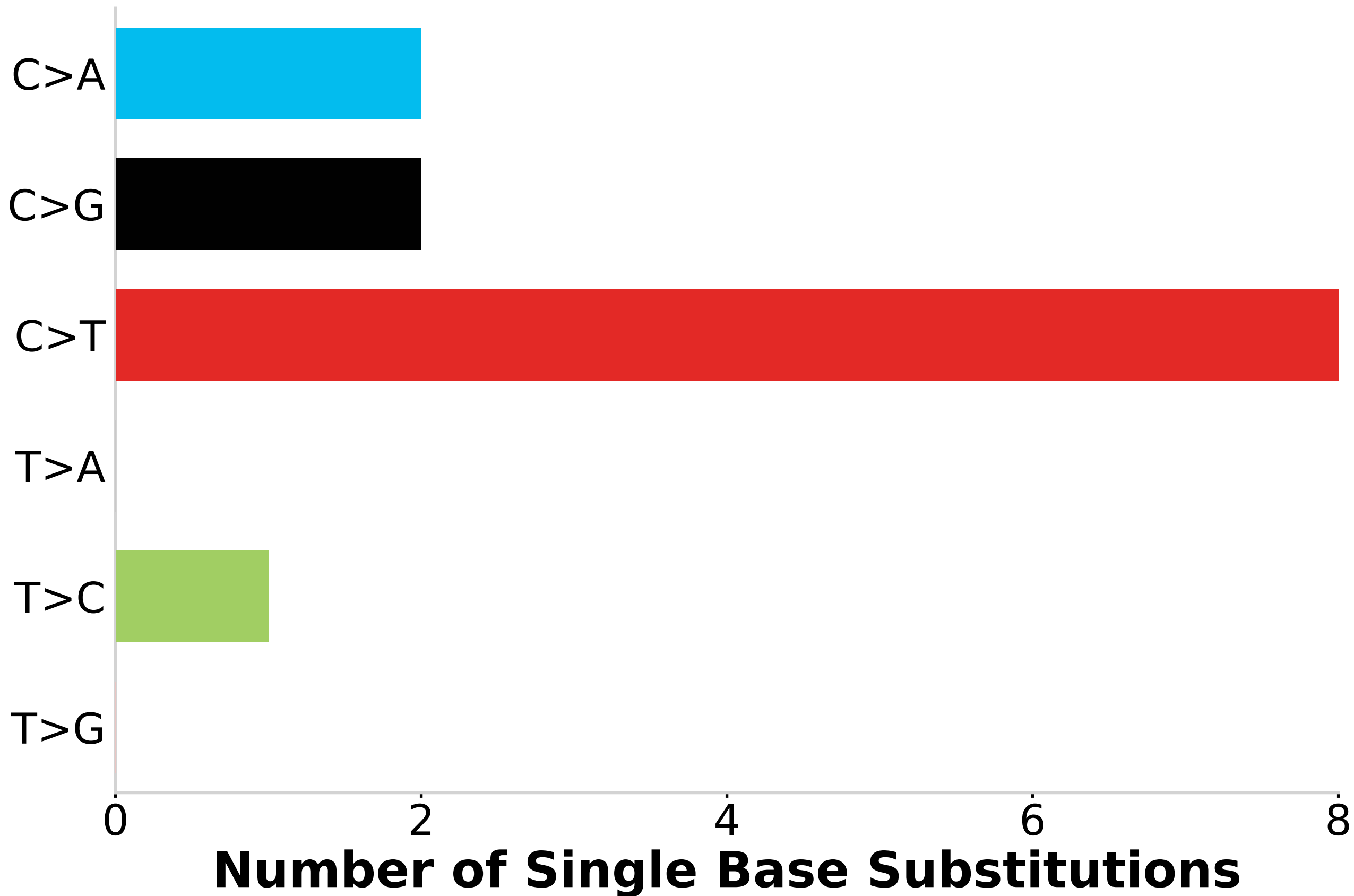
TCGA-XF-AAMR-01A-31D-A42E-08: 18 subs



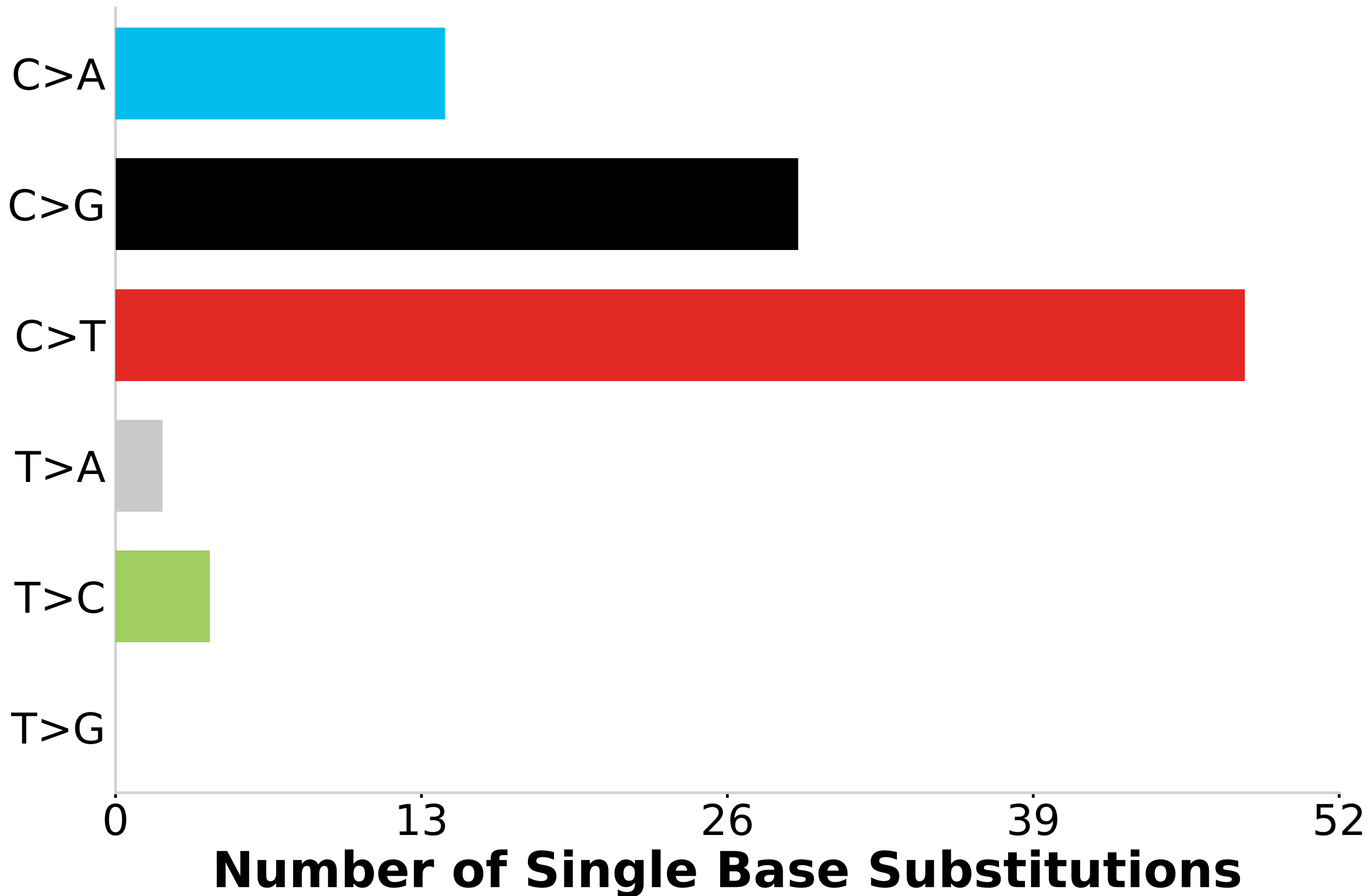
TCGA-XF-AAMT-01A-11D-A42E-08: 30 subs



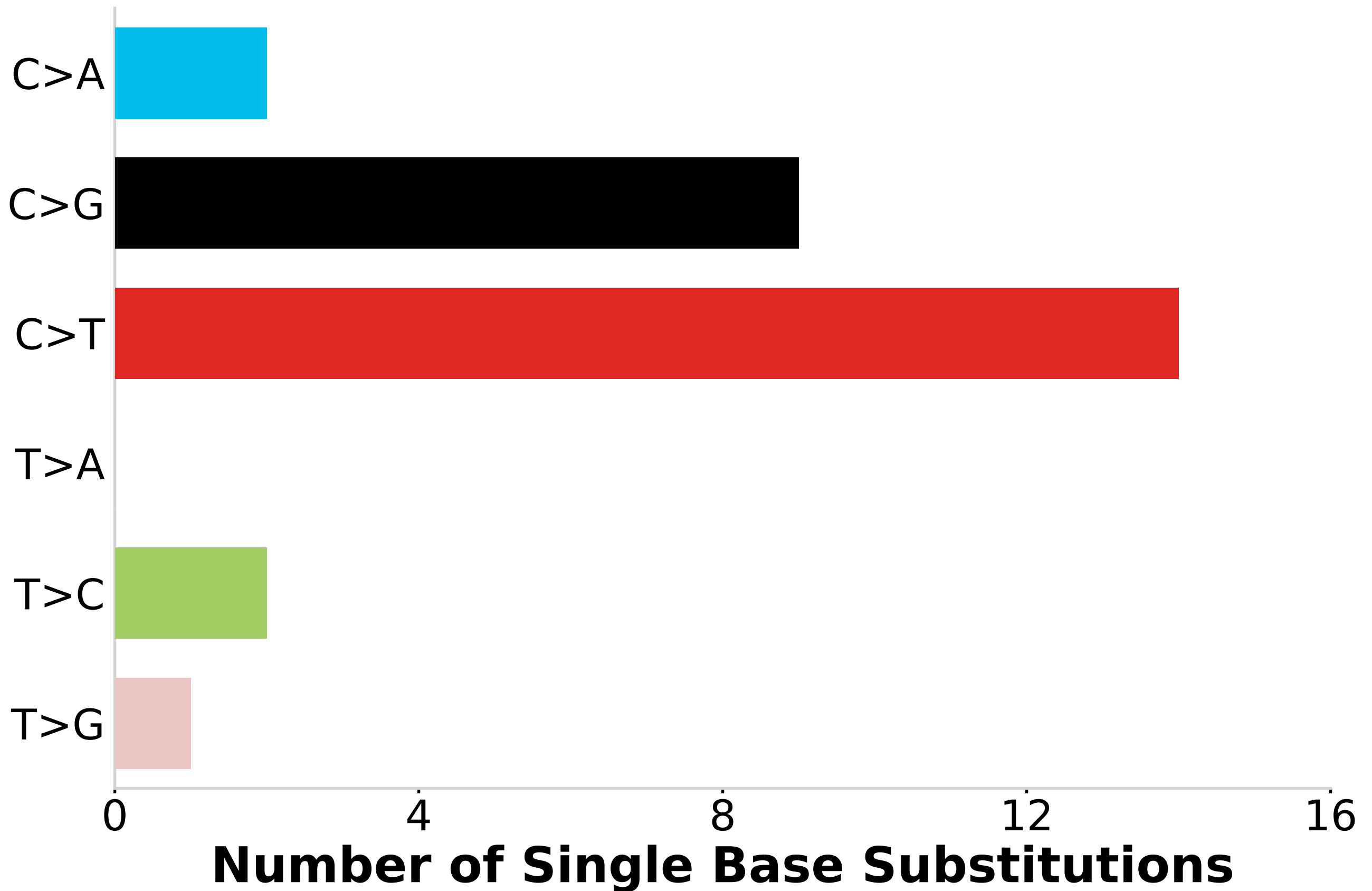
TCGA-XF-AAMW-01A-11D-A42E-08: 13 sub



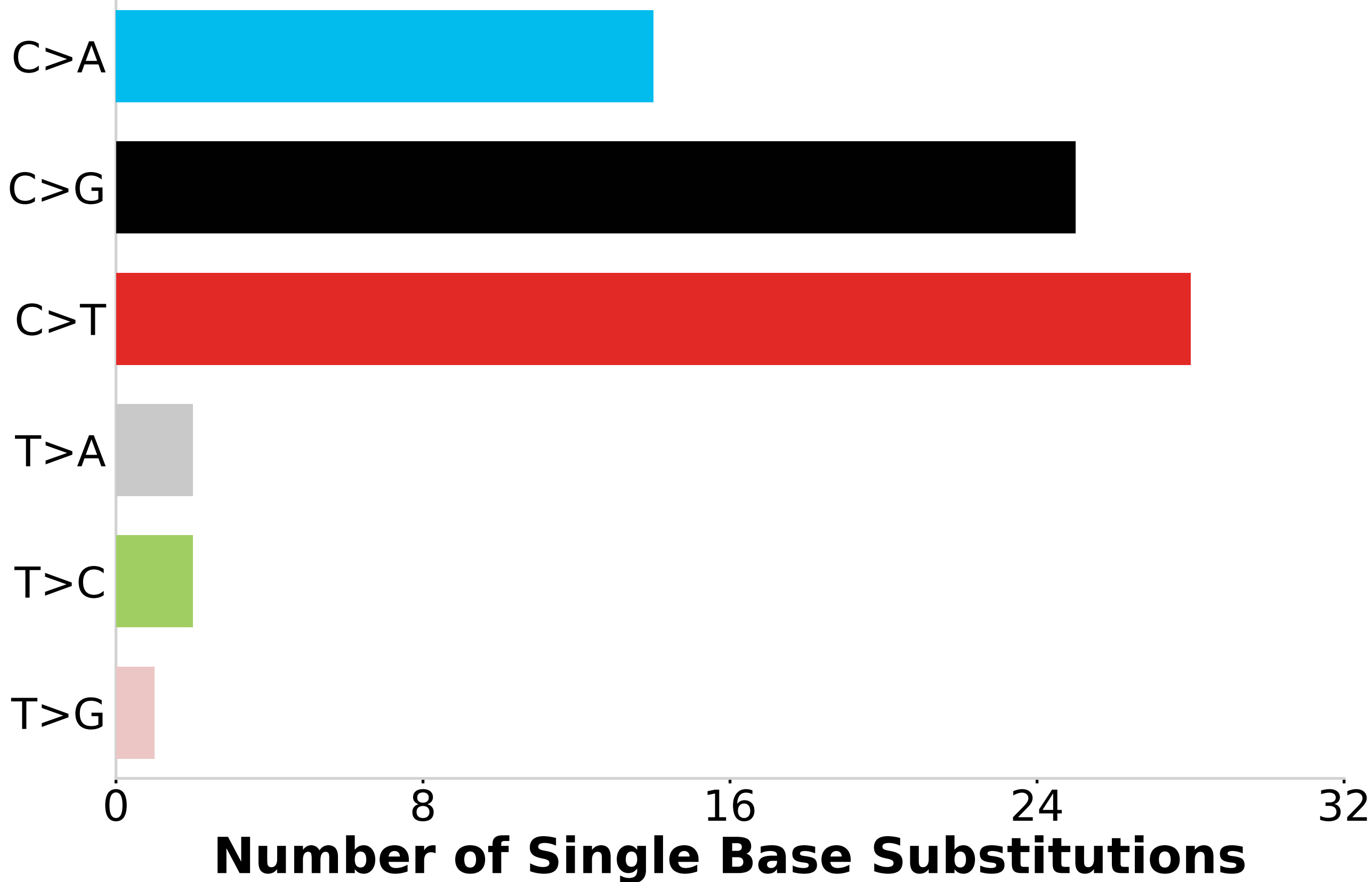
TCGA-XF-AAMX-01A-11D-A42E-08: 97 subs



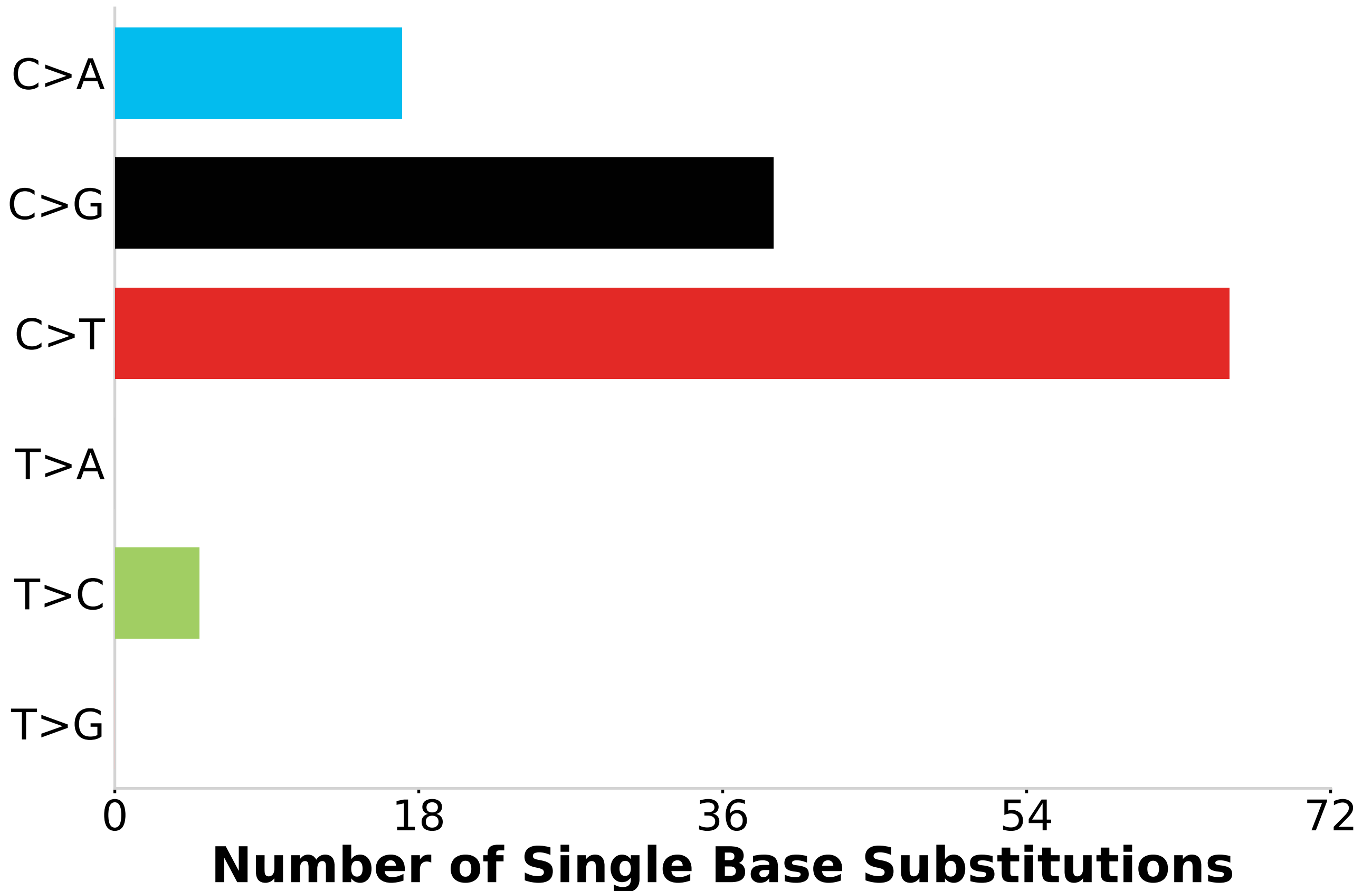
TCGA-XF-AAMY-01A-11D-A42E-08: 28 subs



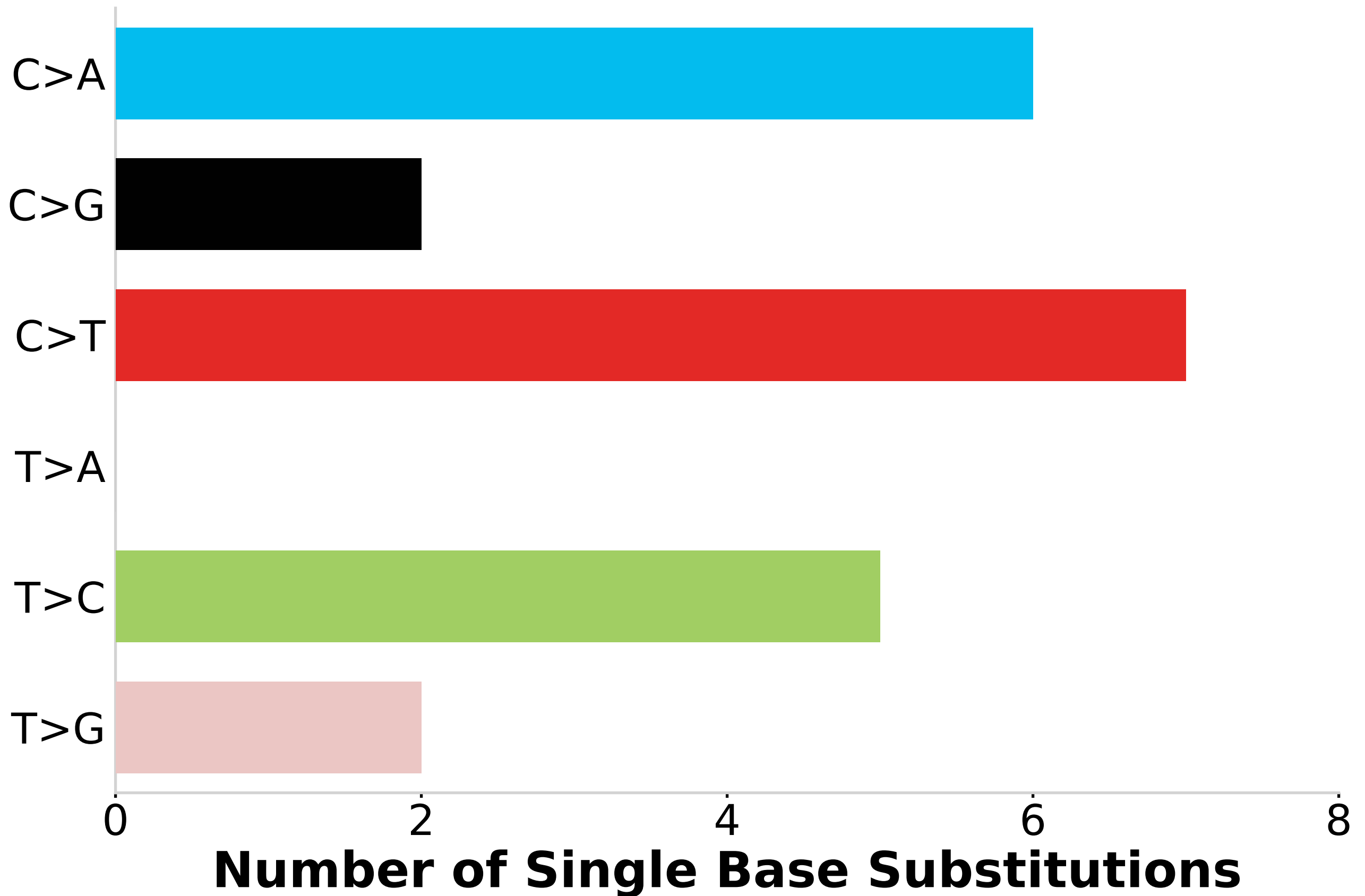
TCGA-XF-AAMZ-01A-11D-A42E-08: 72 subs



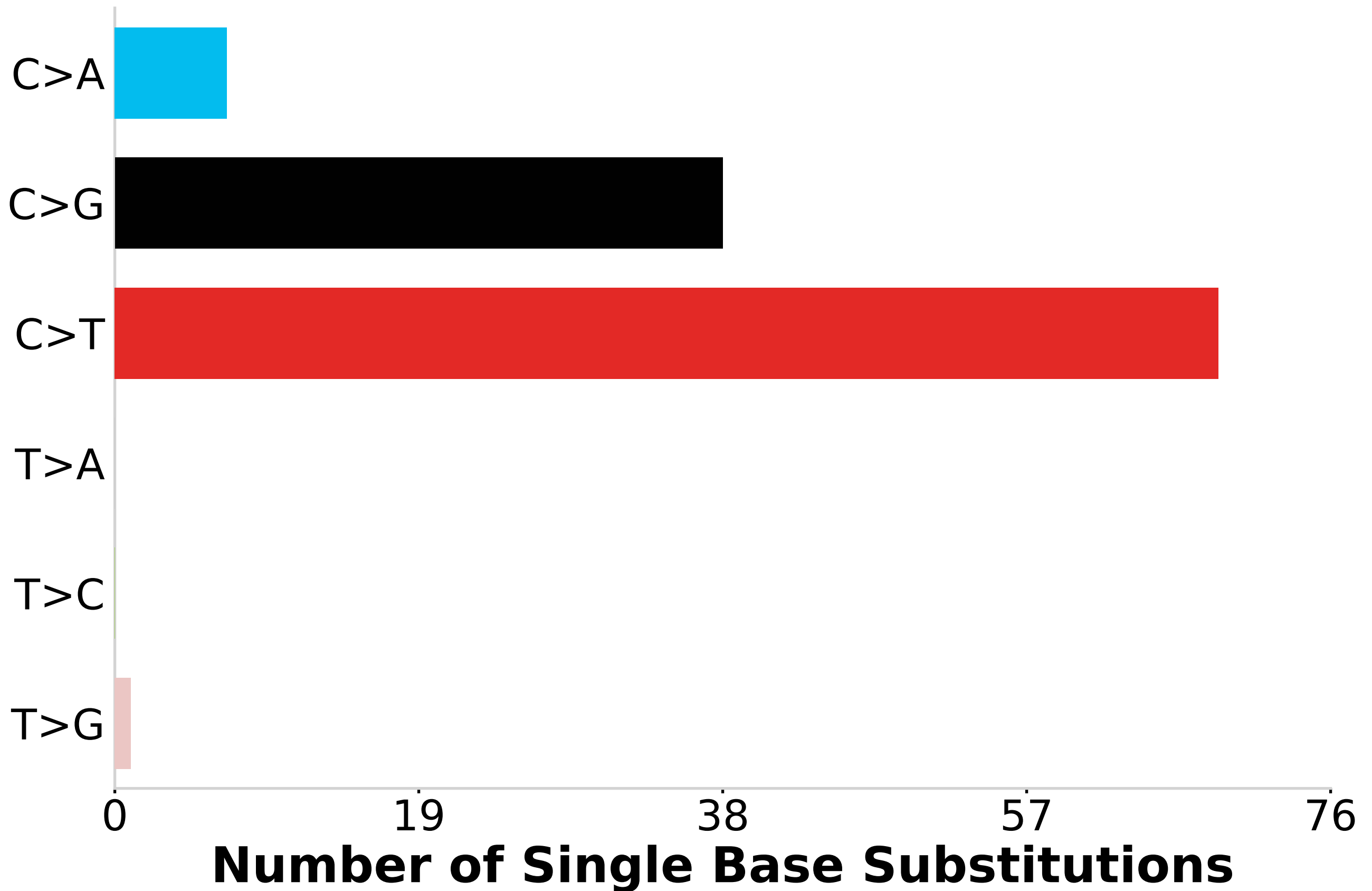
TCGA-XF-AAN0-01A-11D-A42E-08: 127 sub



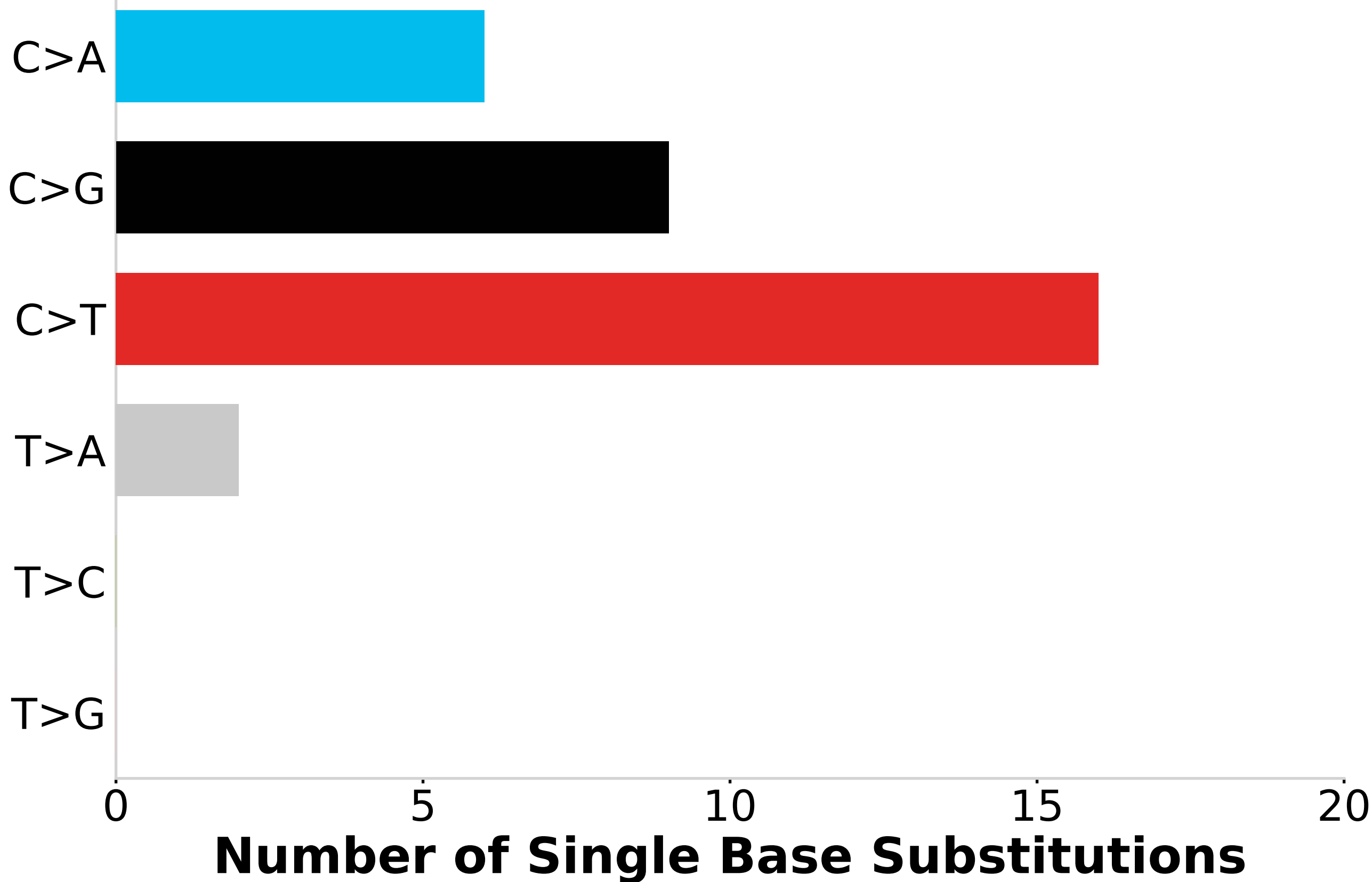
TCGA-XF-AAN1-01A-31D-A42E-08: 22 subs



TCGA-XF-AAN2-01A-11D-A42E-08: 115 sub



TCGA-XF-AAN3-01A-11D-A42E-08: 33 subs



TCGA-XF-AAN4-01A-11D-A42E-08: 8 subs

C>A

C>G

C>T

T>A

T>C

T>G

0

1

2

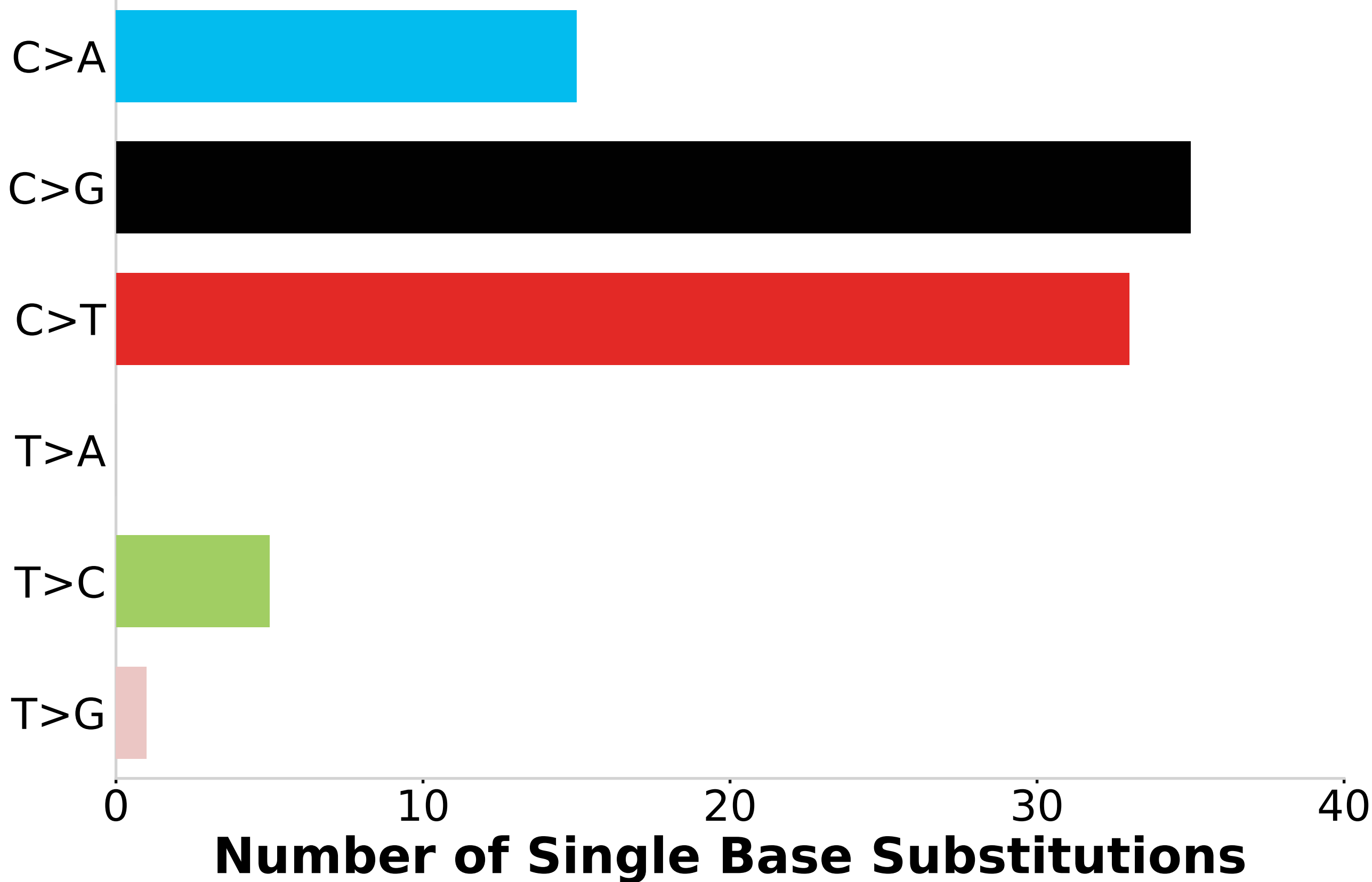
3

4

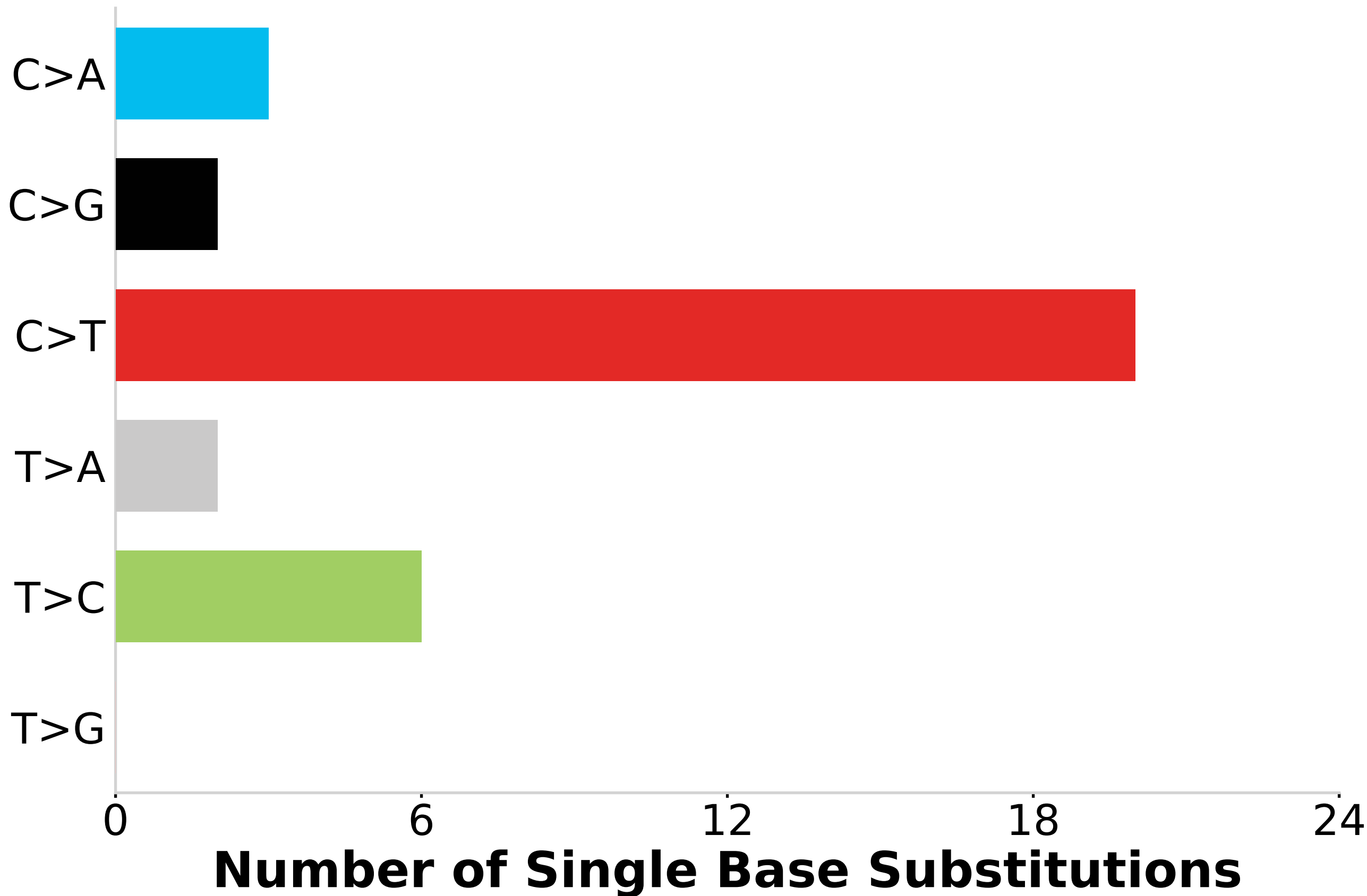
Number of Single Base Substitutions



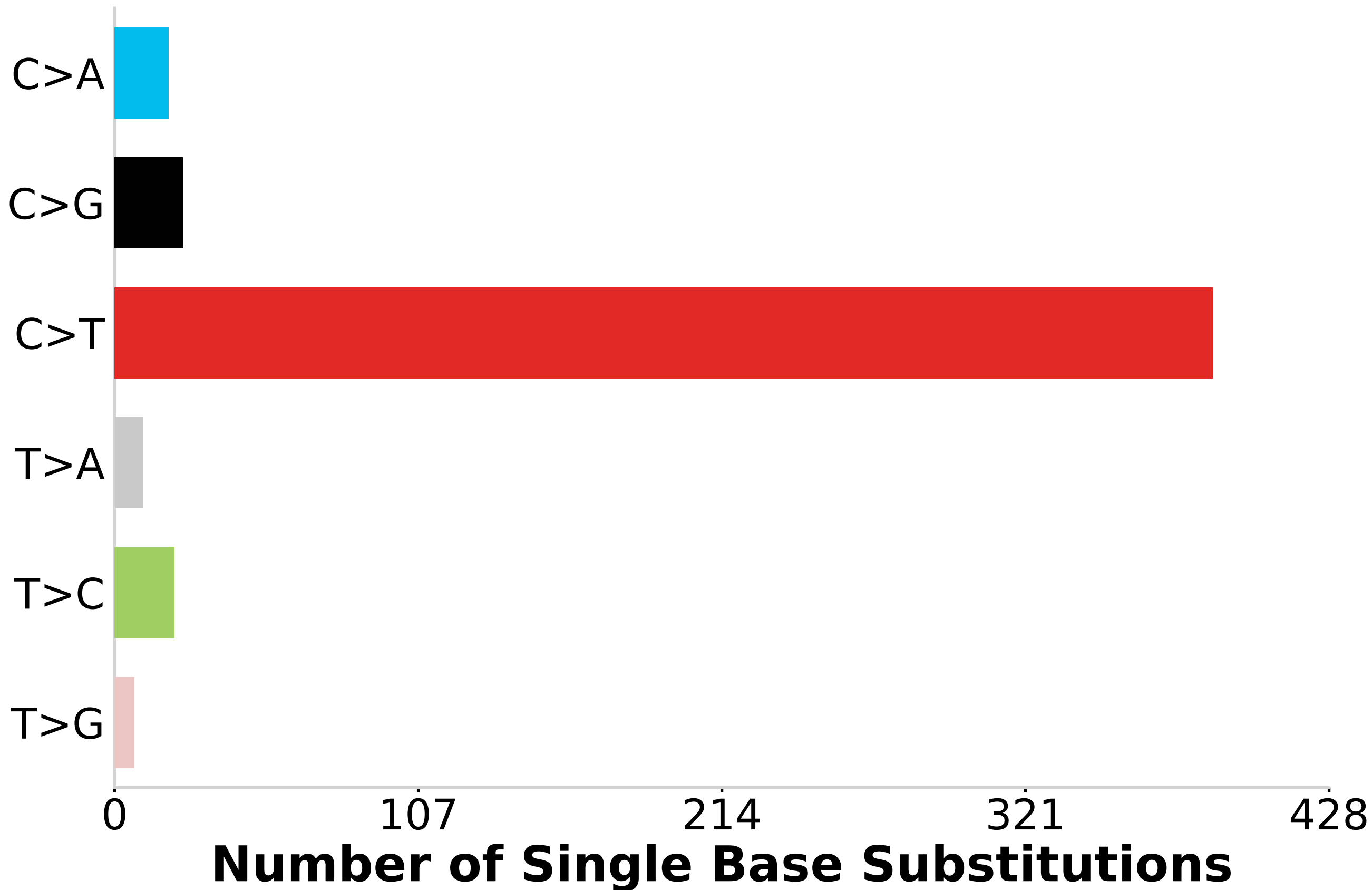
TCGA-XF-AAN5-01A-11D-A42E-08: 89 subs



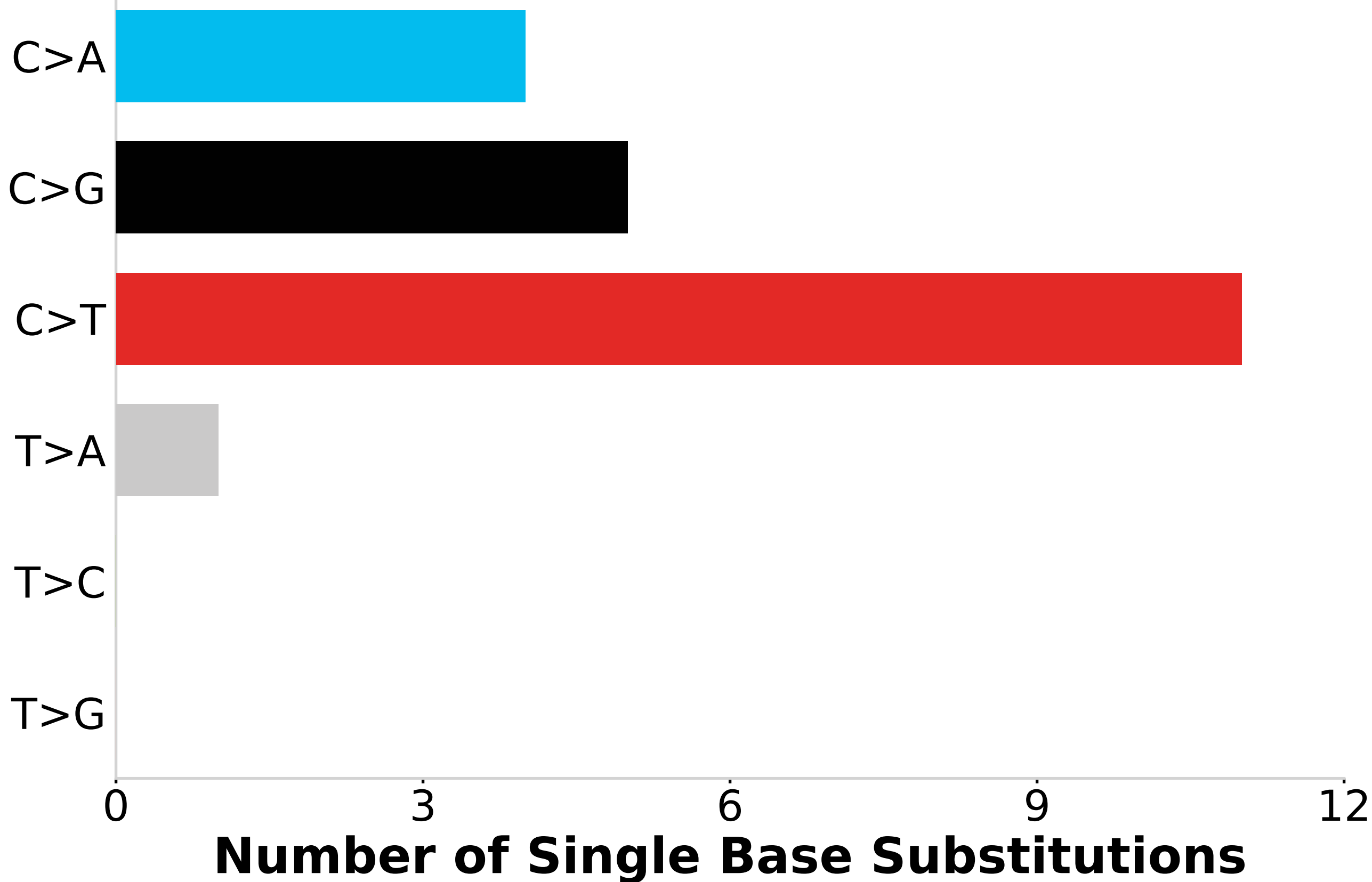
TCGA-XF-AAN7-01A-11D-A42E-08: 33 subs



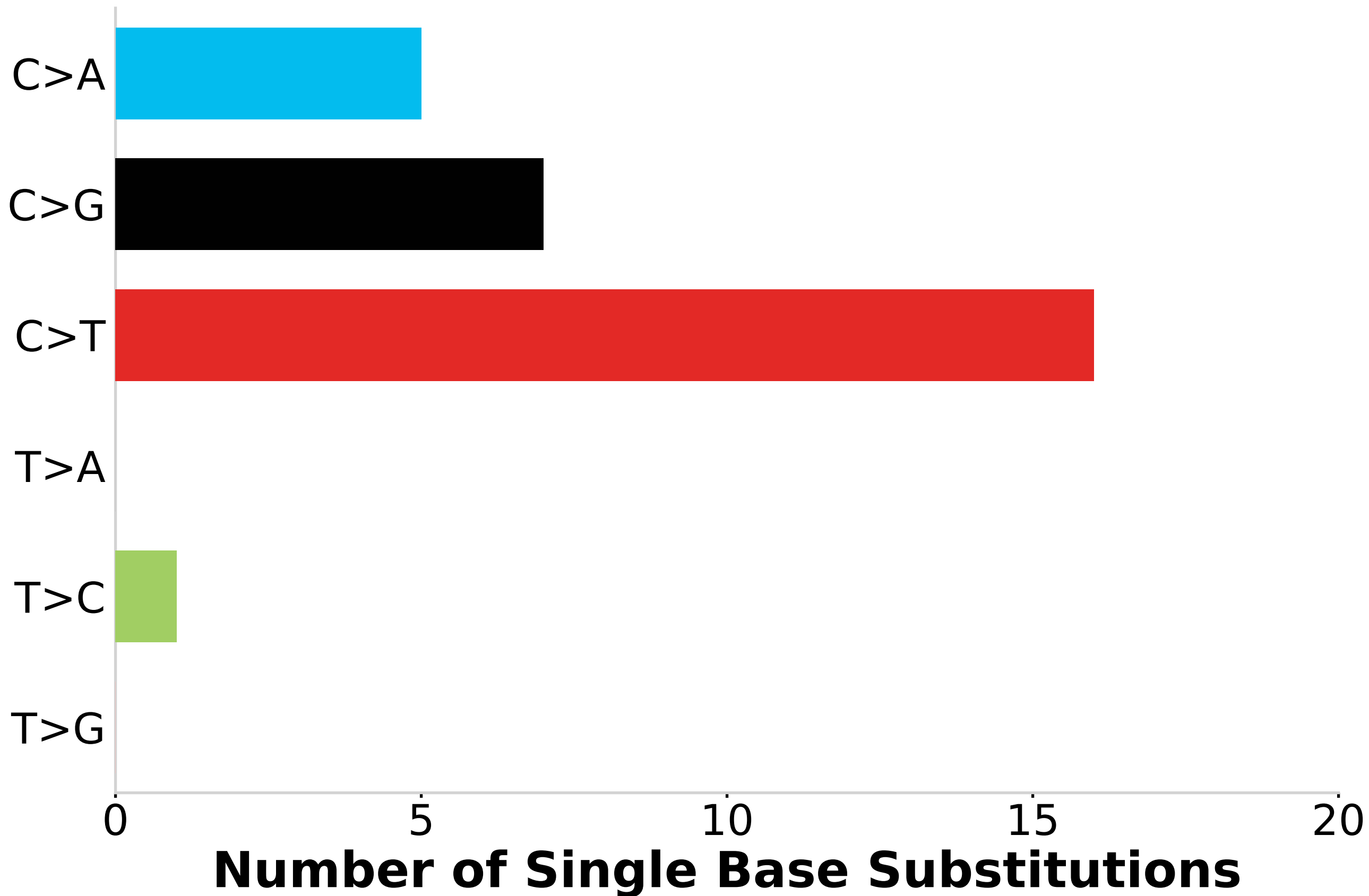
TCGA-YC-A89H-01A-11D-A364-08: 468 sub



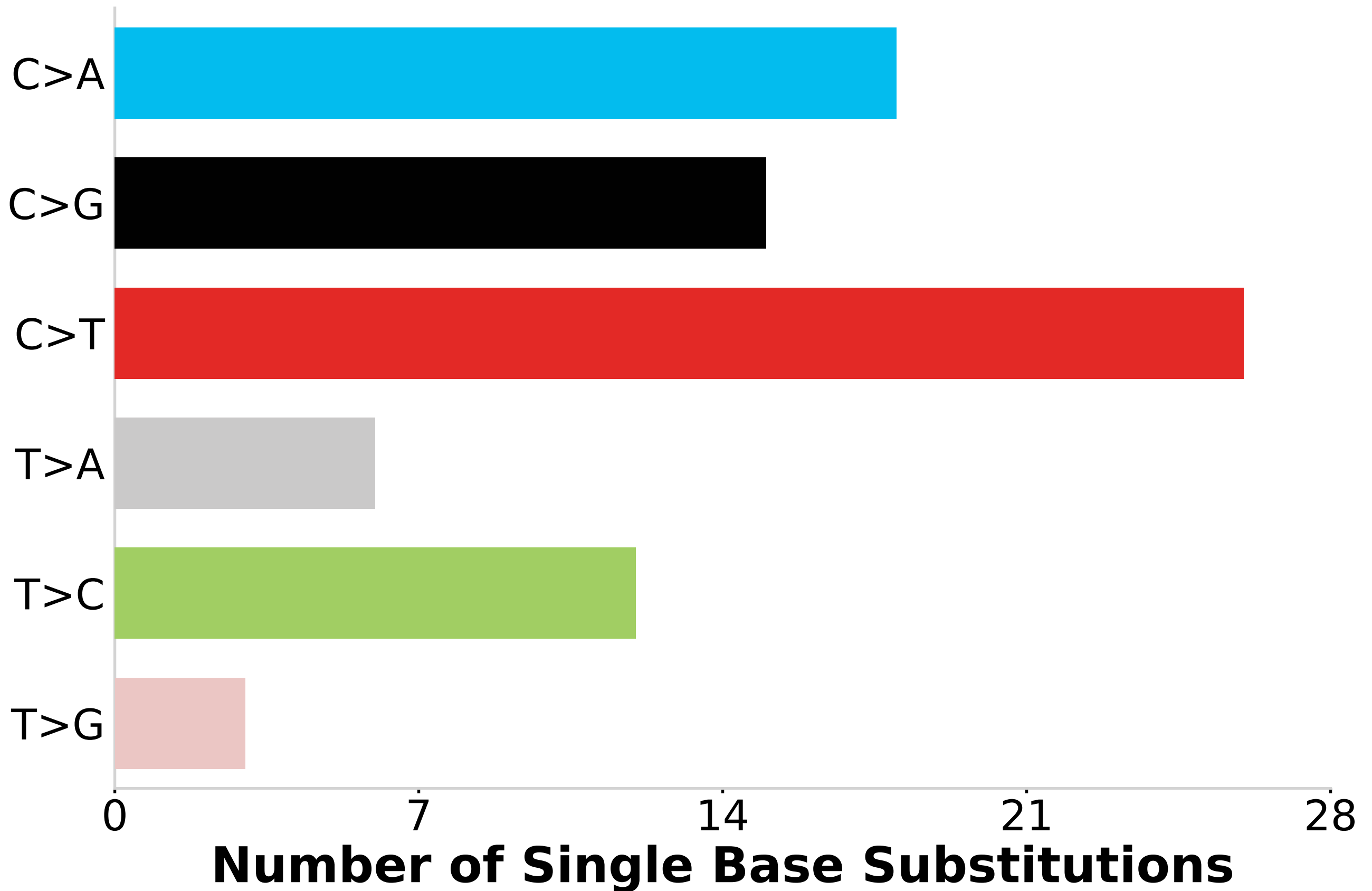
TCGA-YC-A8S6-01A-31D-A38G-08: 21 subs



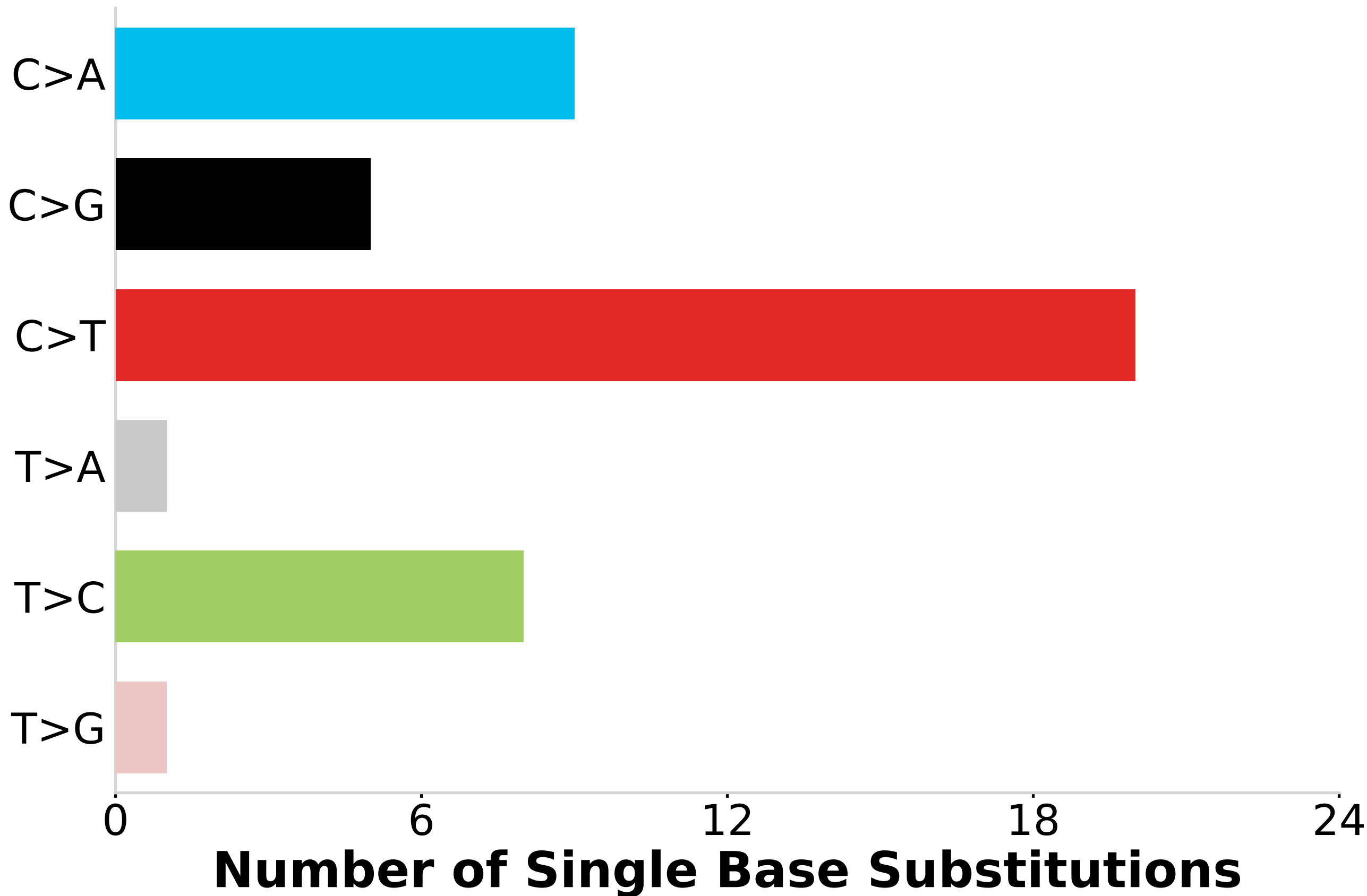
TCGA-YC-A9TC-01A-22D-A391-08: 29 subs



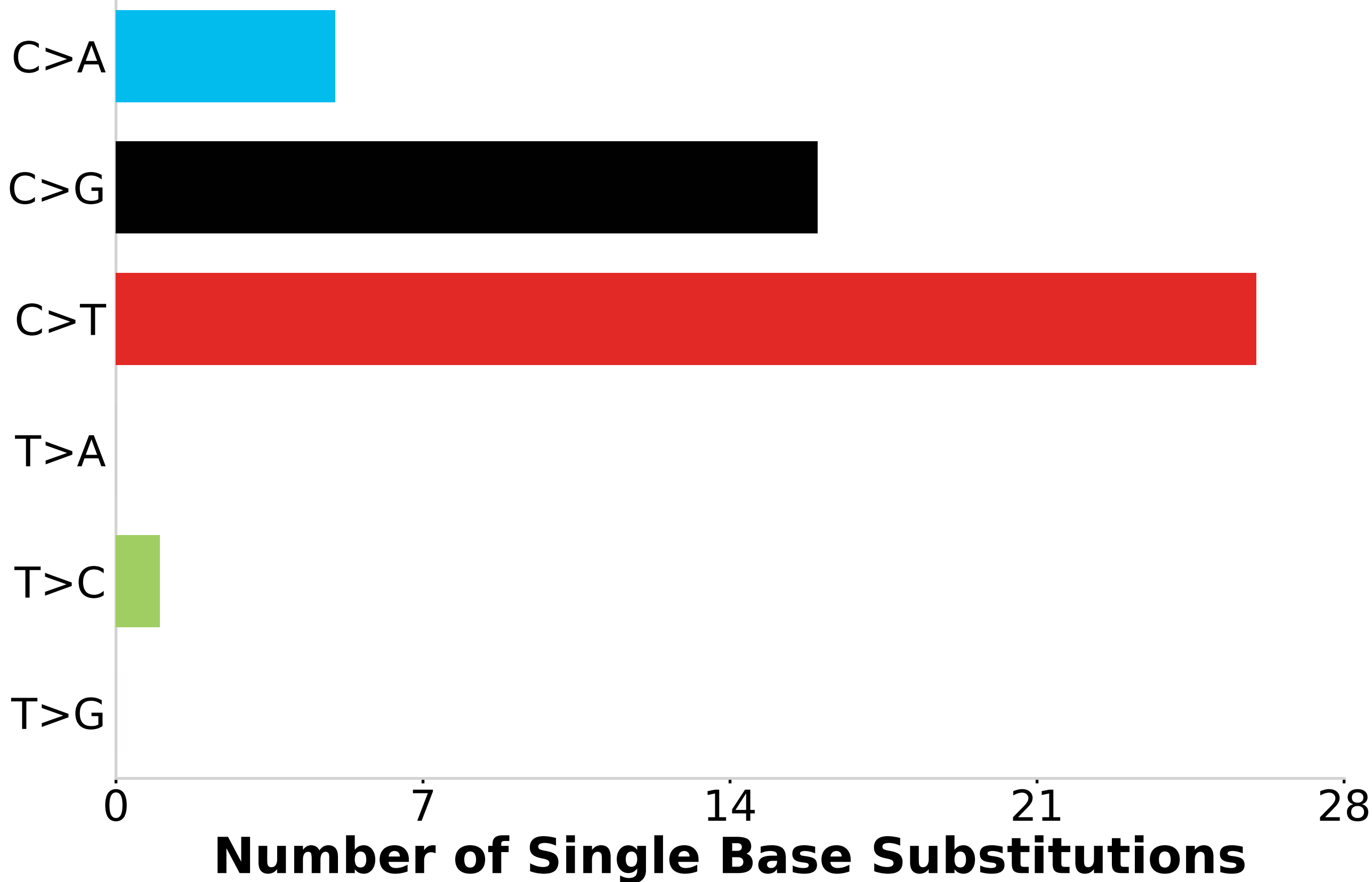
TCGA-YF-AA3L-01A-11D-A38G-08: 80 subs



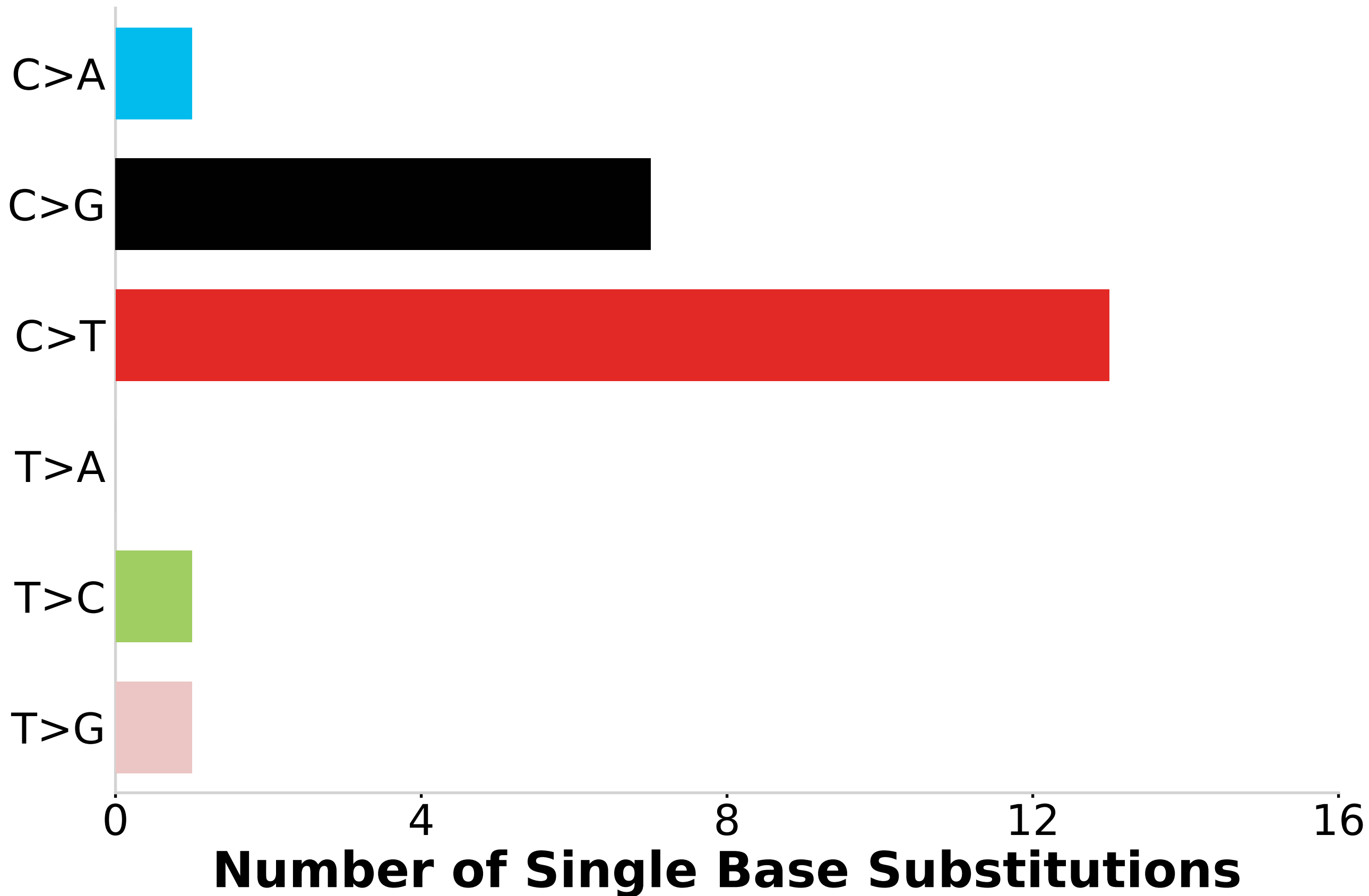
TCGA-YF-AA3M-01A-11D-A42E-08: 44 subs



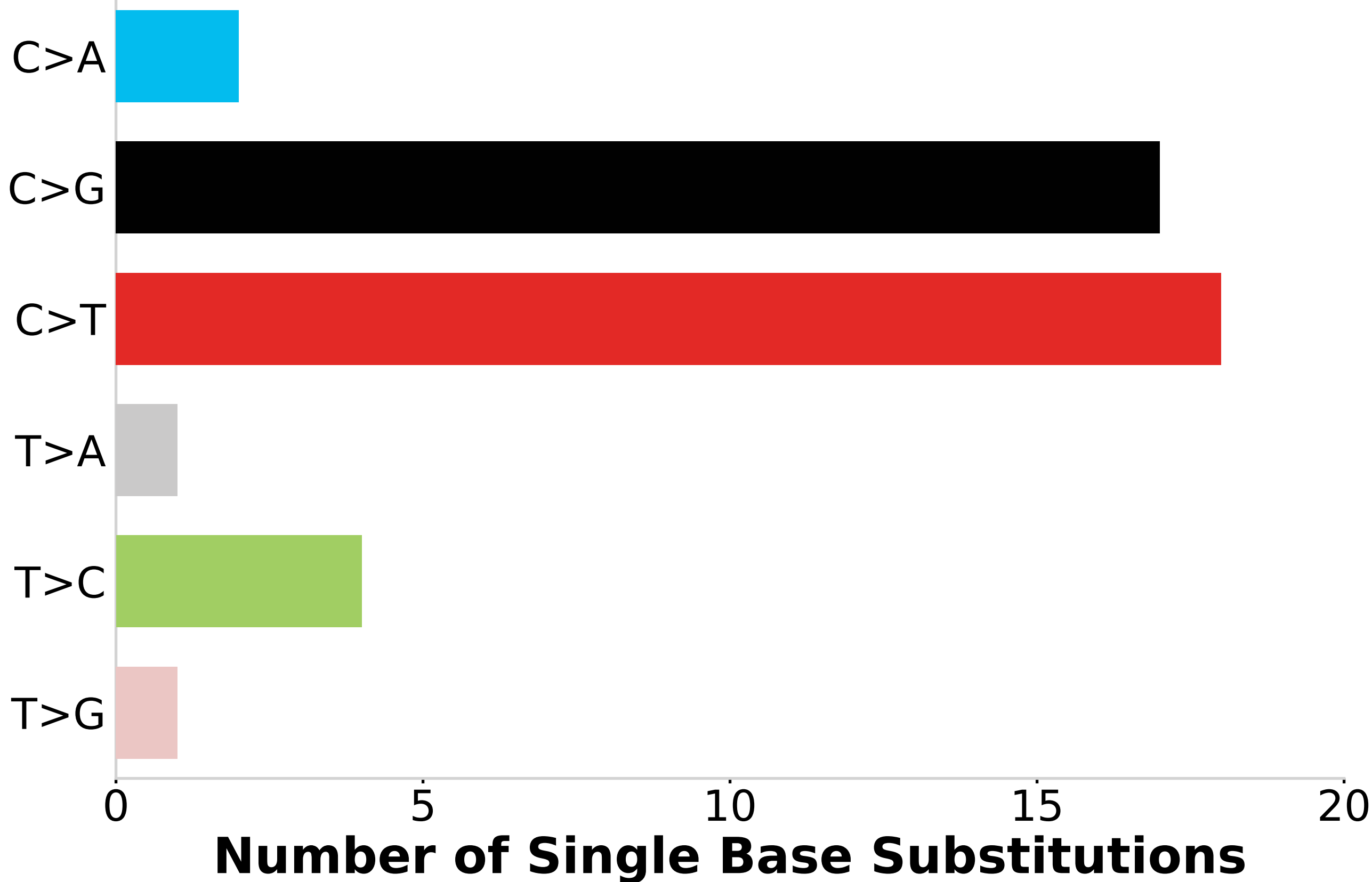
TCGA-ZF-A9R0-01A-11D-A38G-08: 48 subs



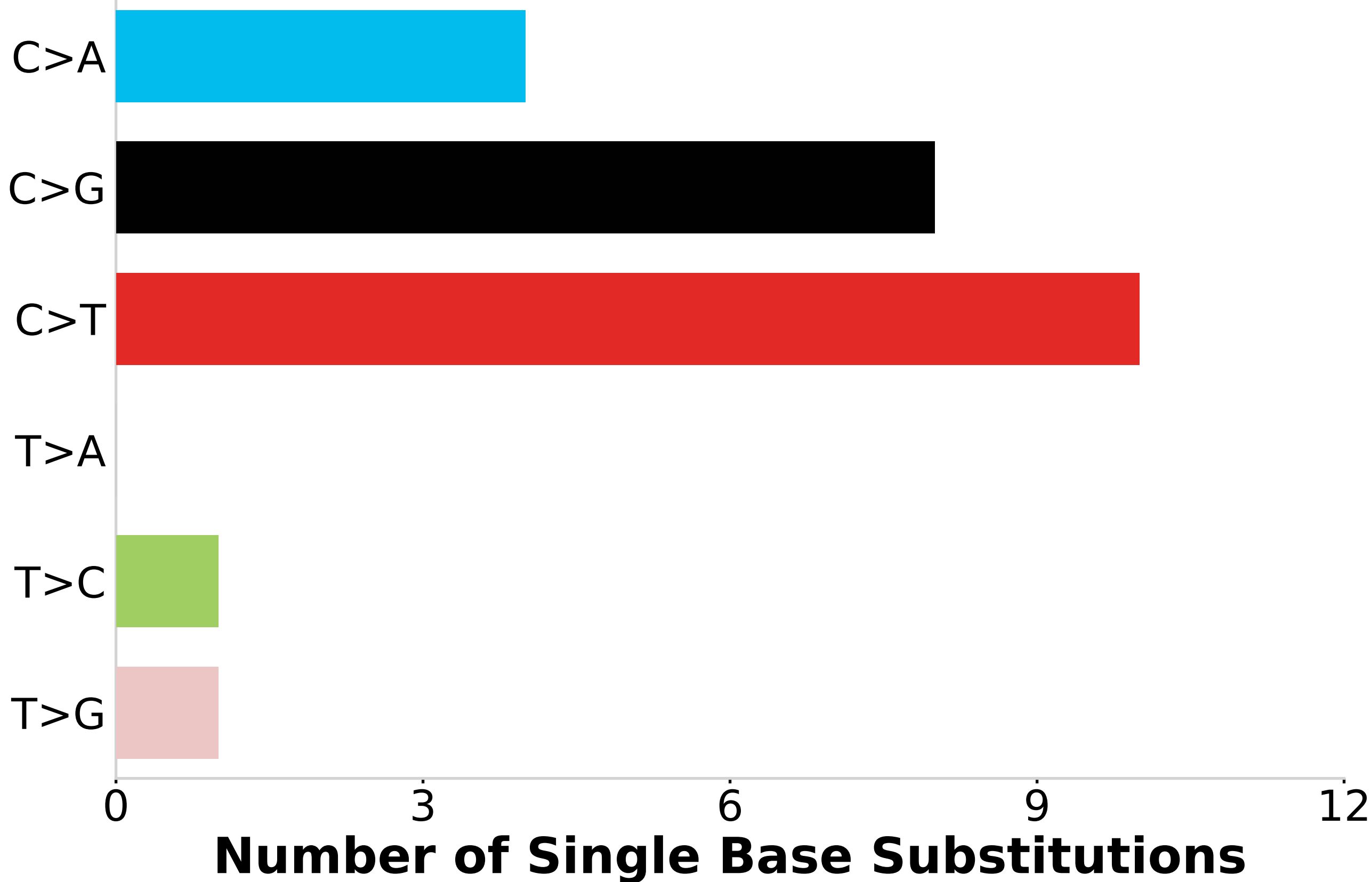
TCGA-ZF-A9R1-01A-11D-A391-08: 23 subs



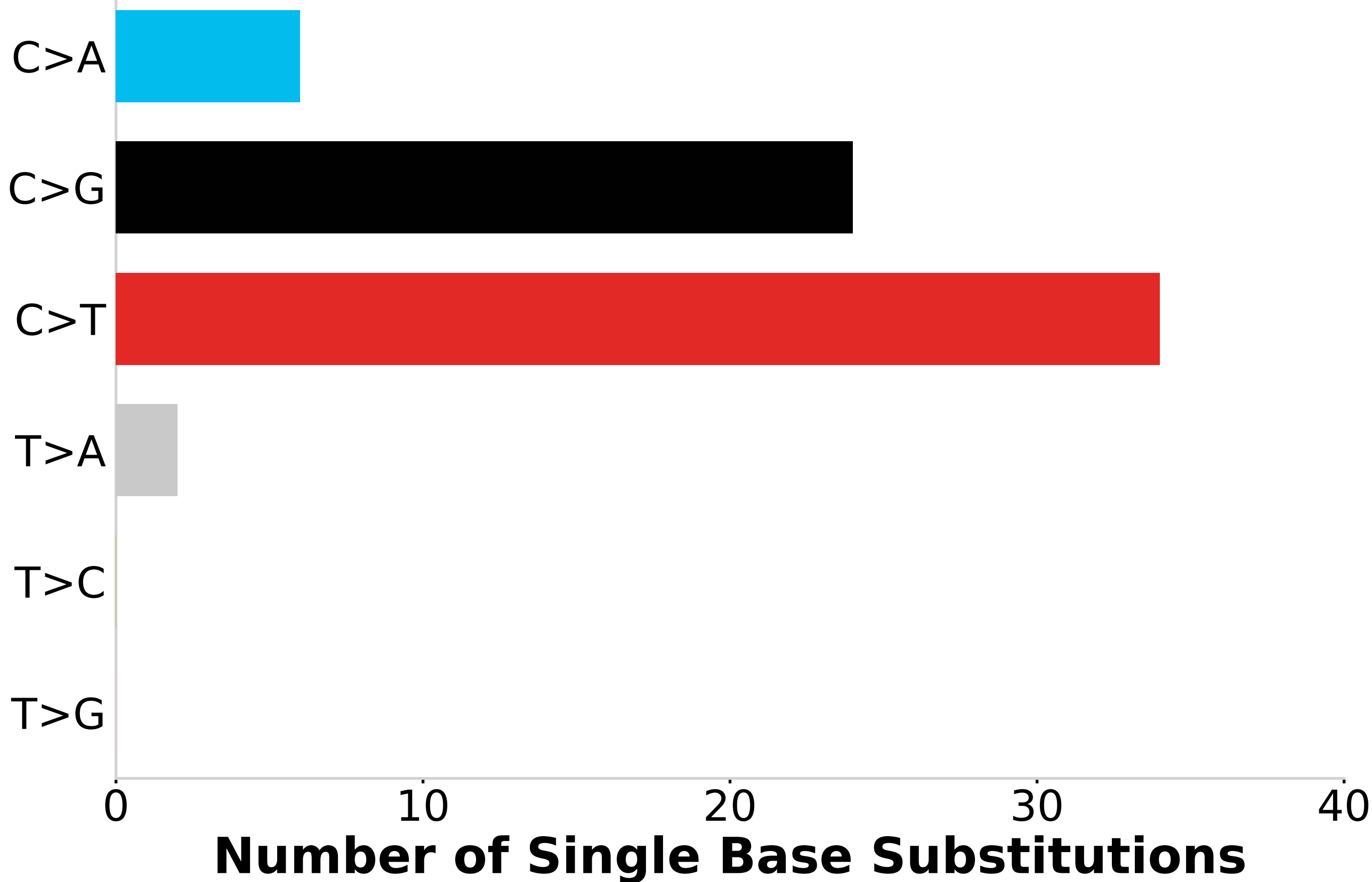
TCGA-ZF-A9R2-01A-11D-A391-08: 43 subs



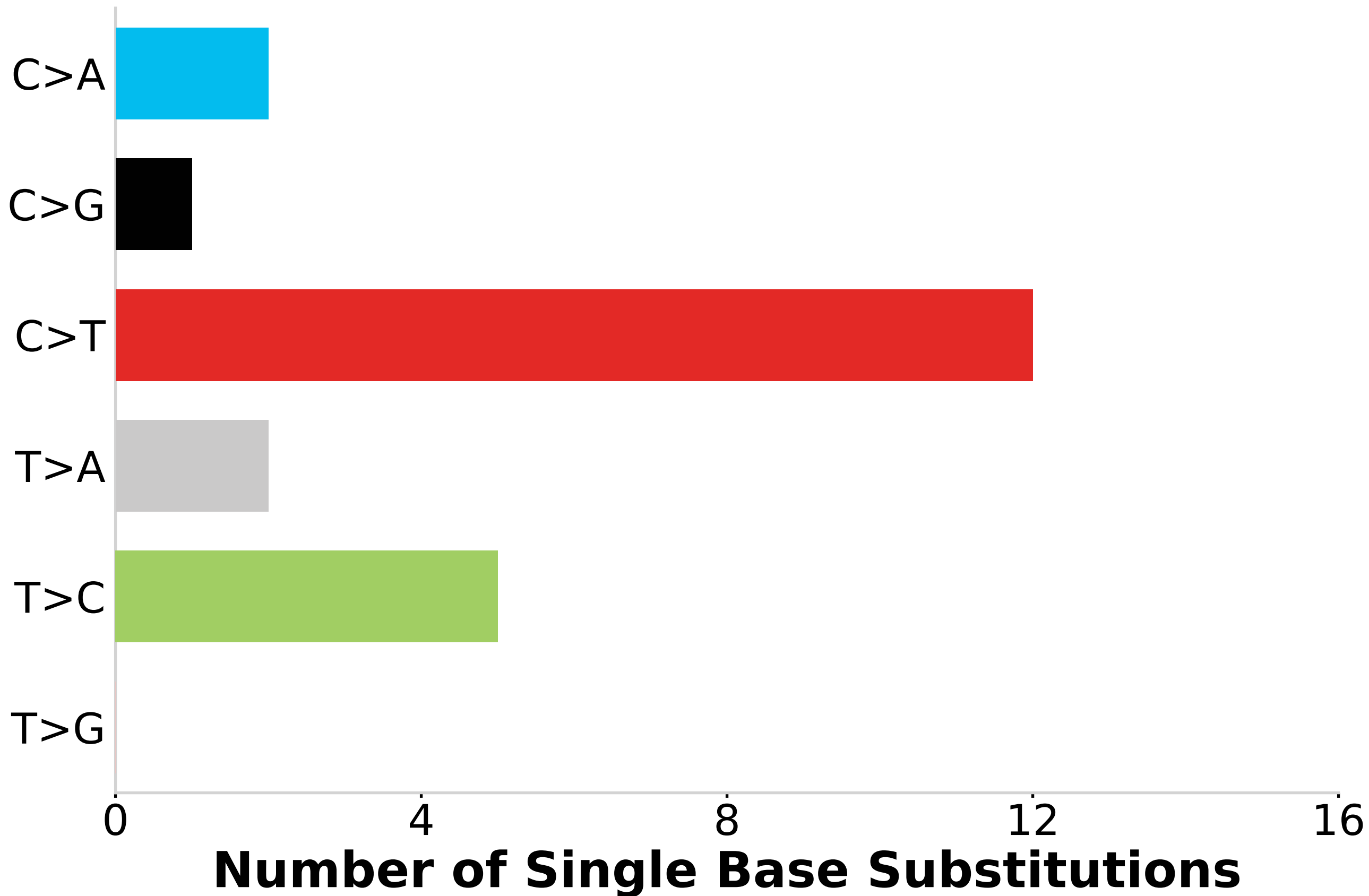
TCGA-ZF-A9R3-01A-11D-A38G-08: 24 subs



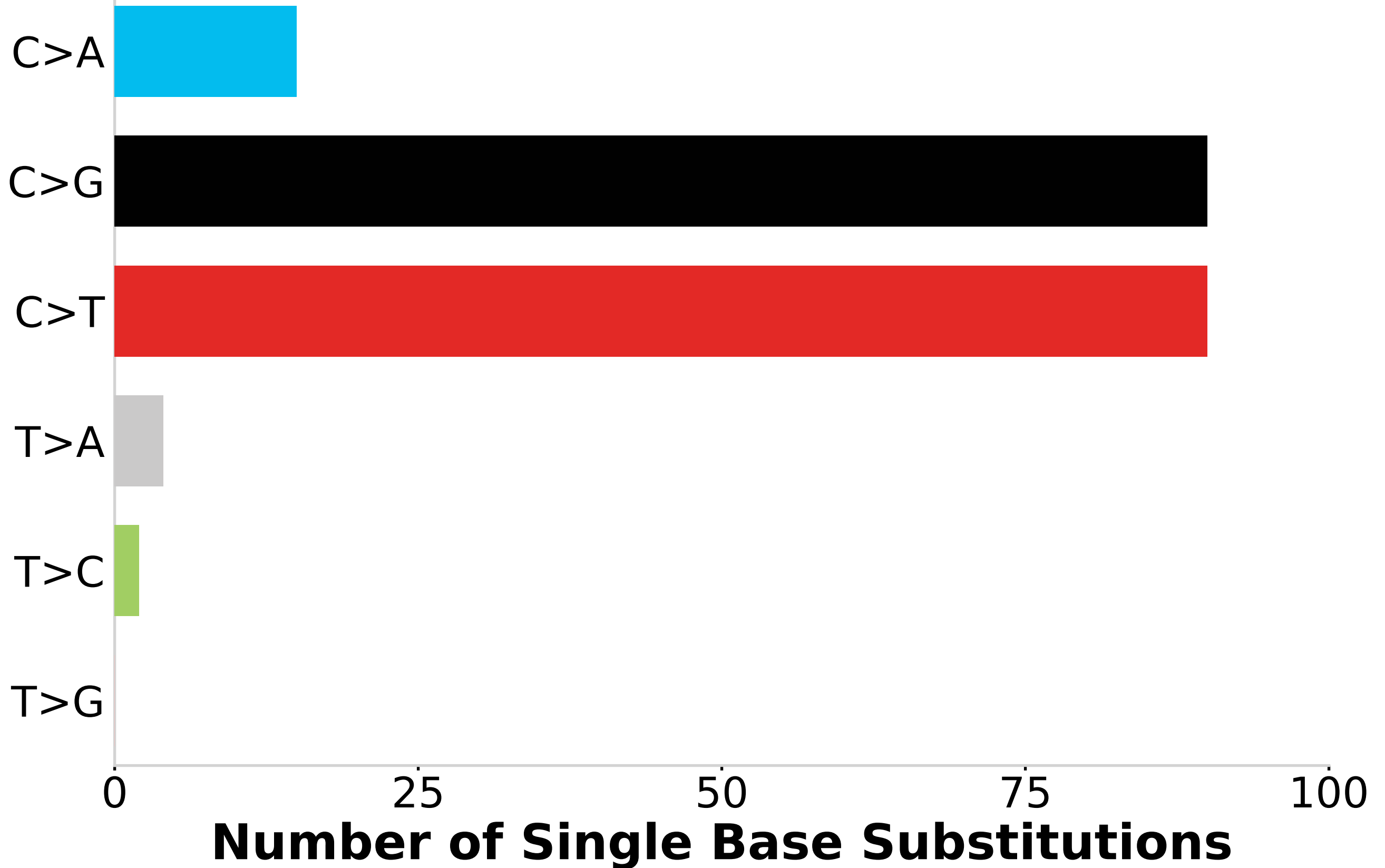
TCGA-ZF-A9R4-01A-11D-A38G-08: 66 subs



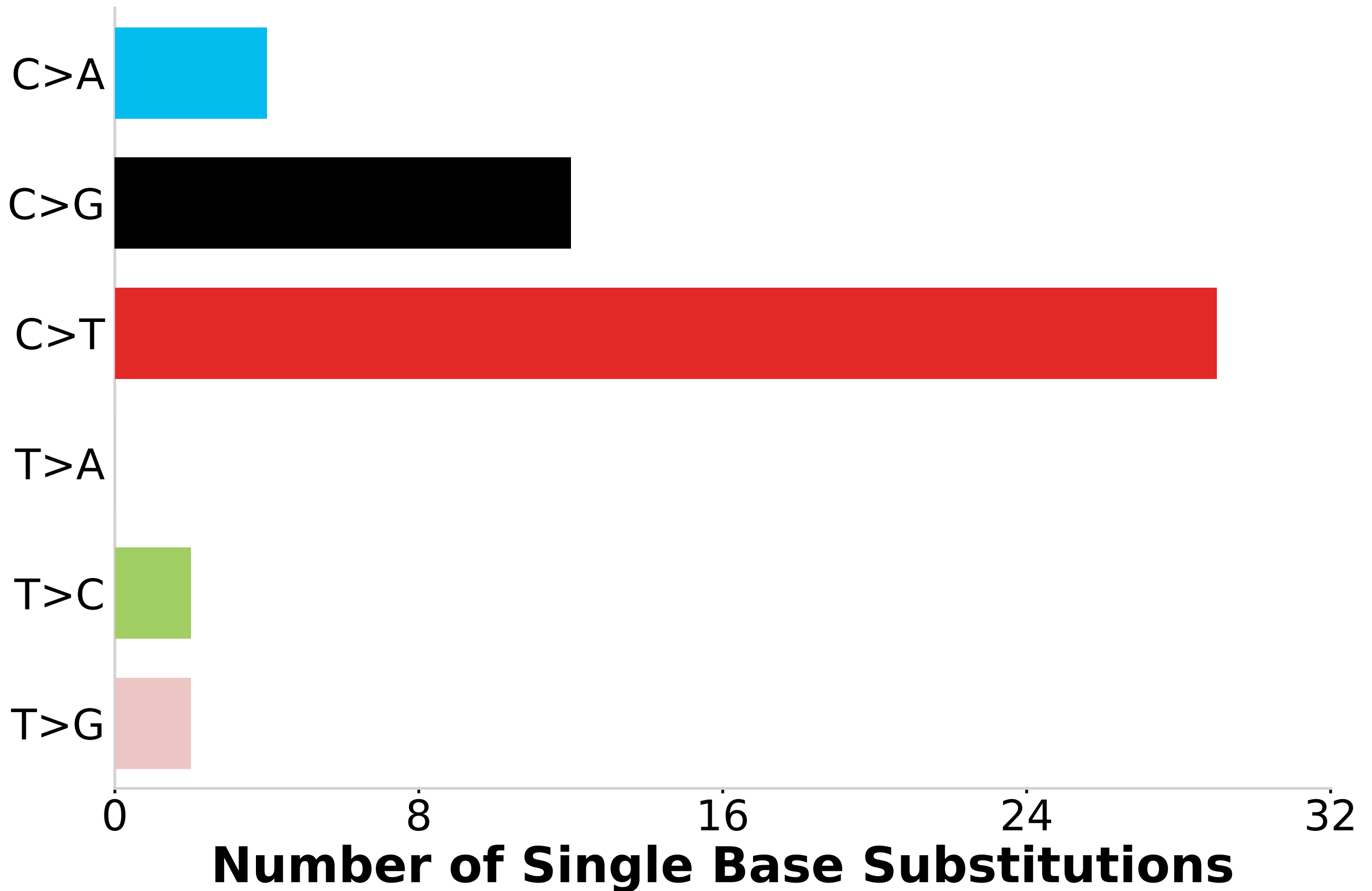
TCGA-ZF-A9R5-01A-12D-A42E-08: 22 subs



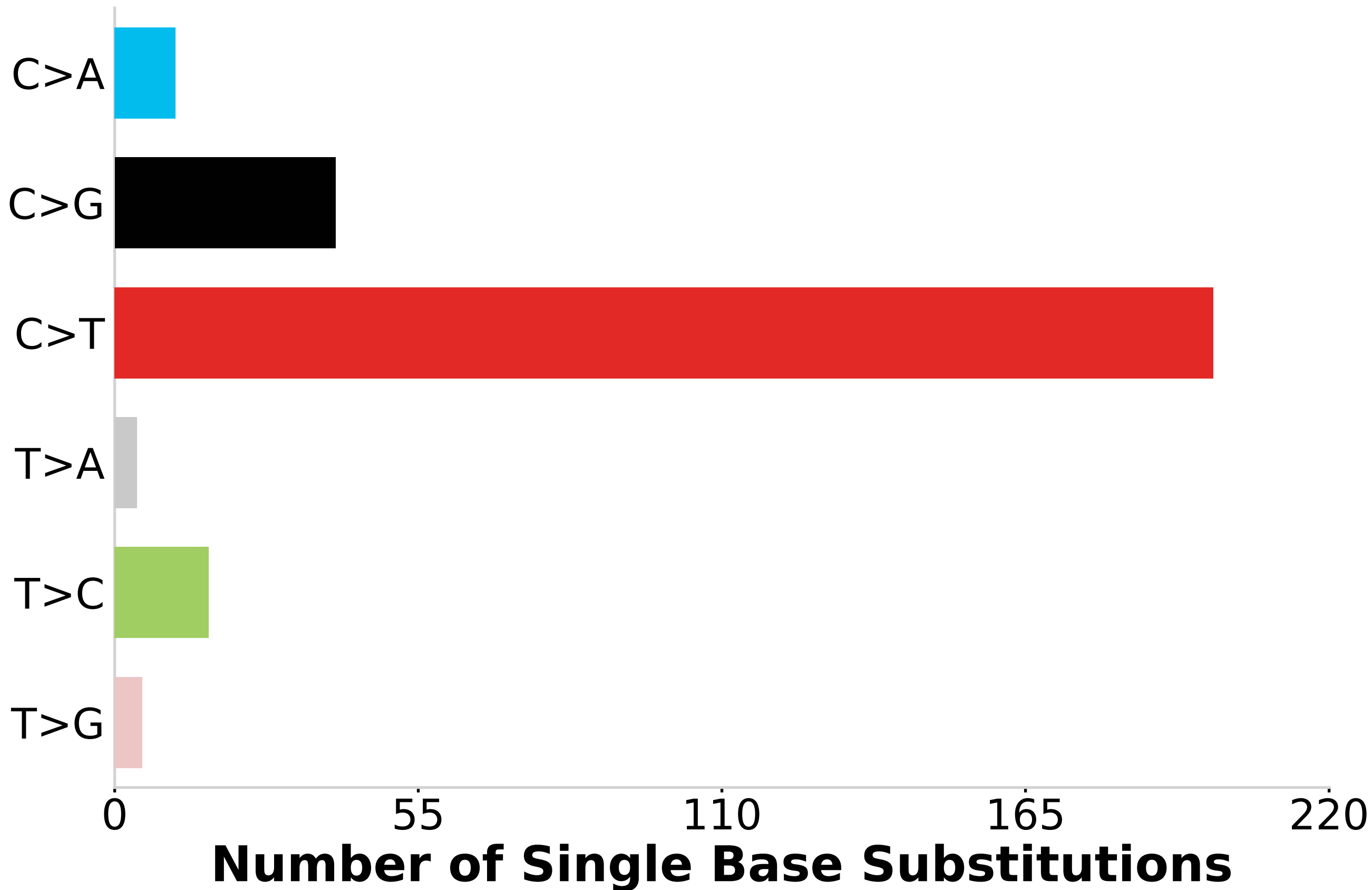
TCGA-ZF-A9R7-01A-11D-A38G-08: 201 sub



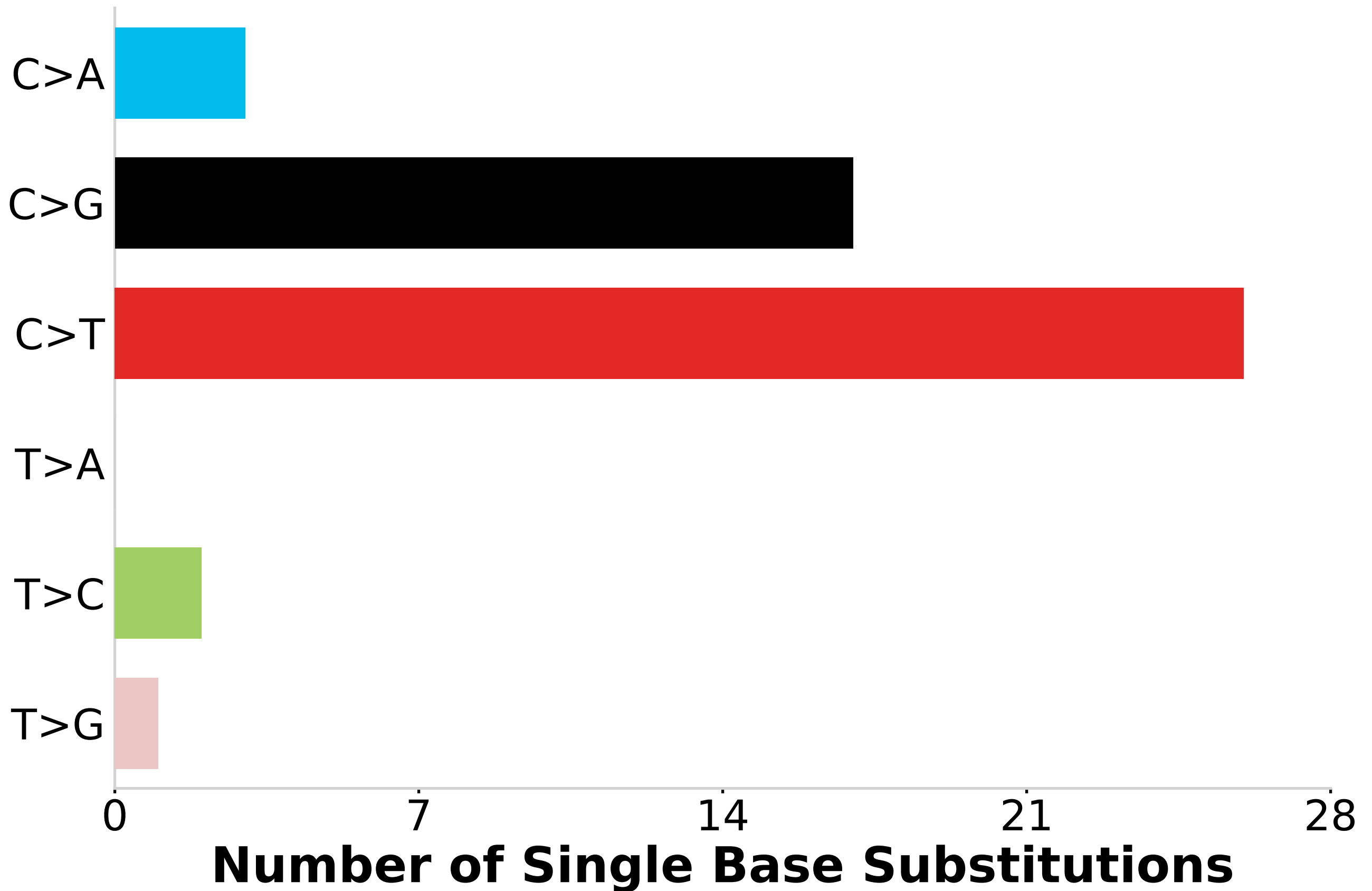
TCGA-ZF-A9R9-01A-11D-A38G-08: 49 subs



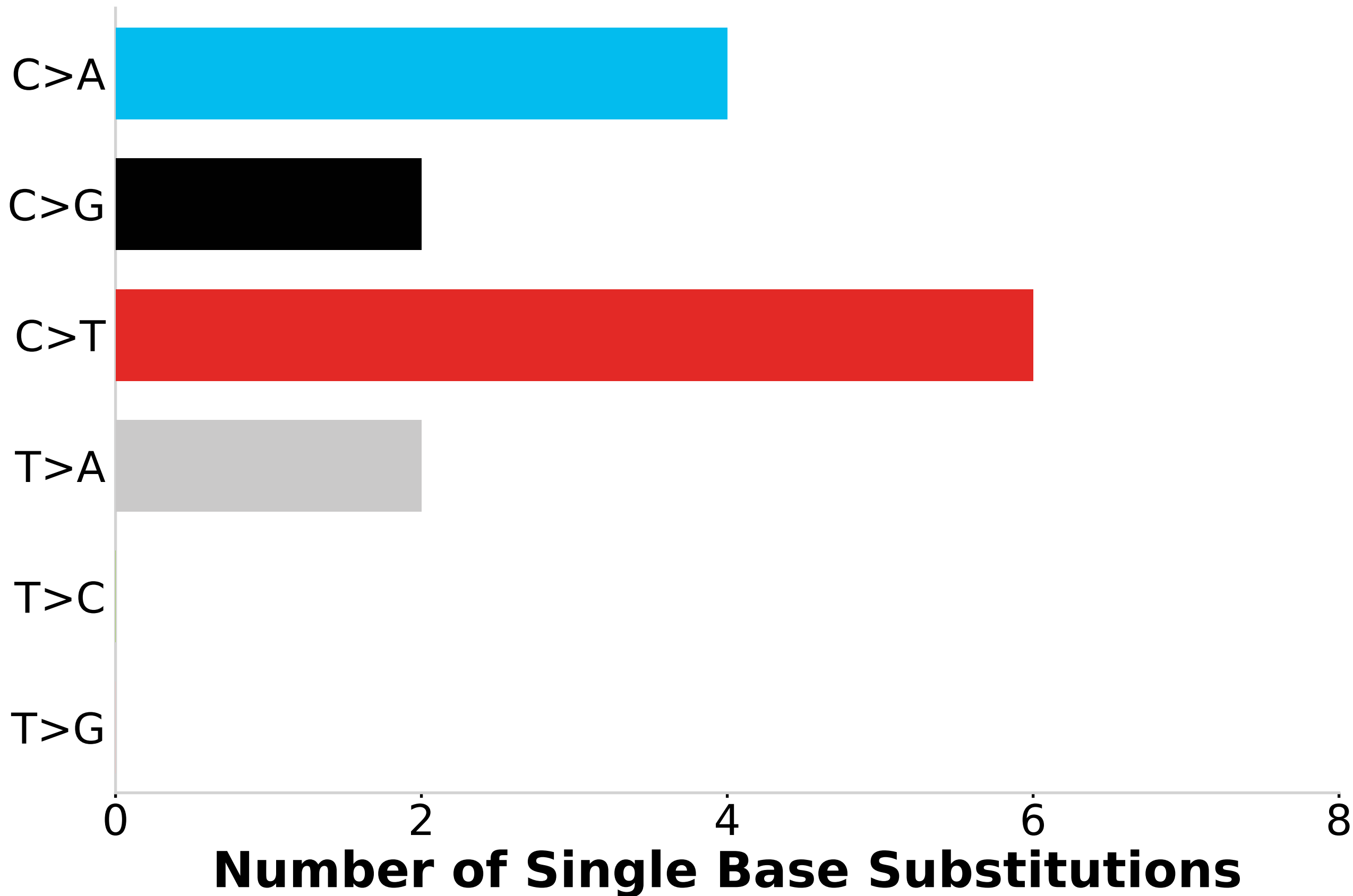
TCGA-ZF-A9RC-01A-11D-A38G-08: 276 sub



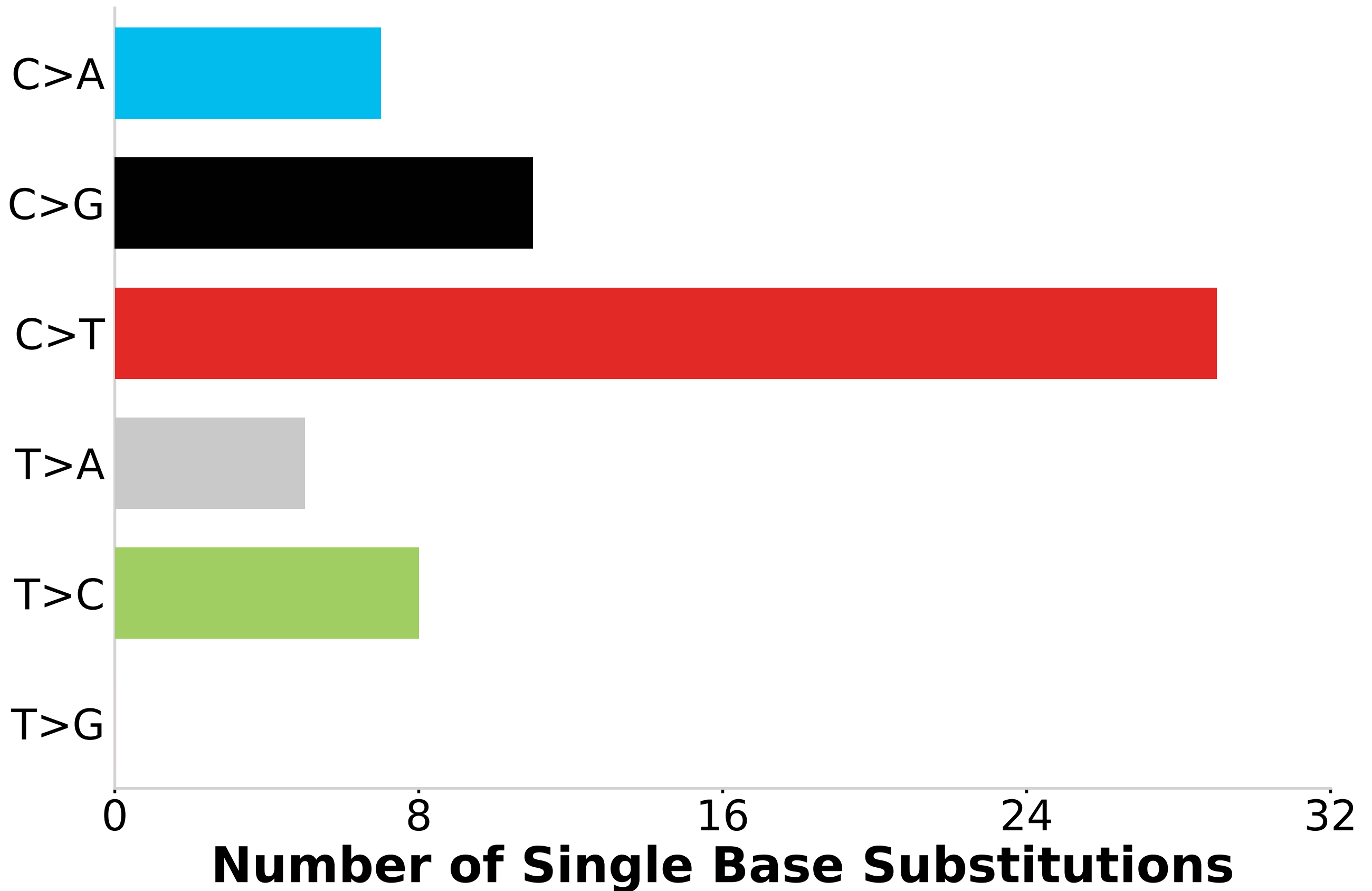
TCGA-ZF-A9RD-01A-11D-A42E-08: 49 subs



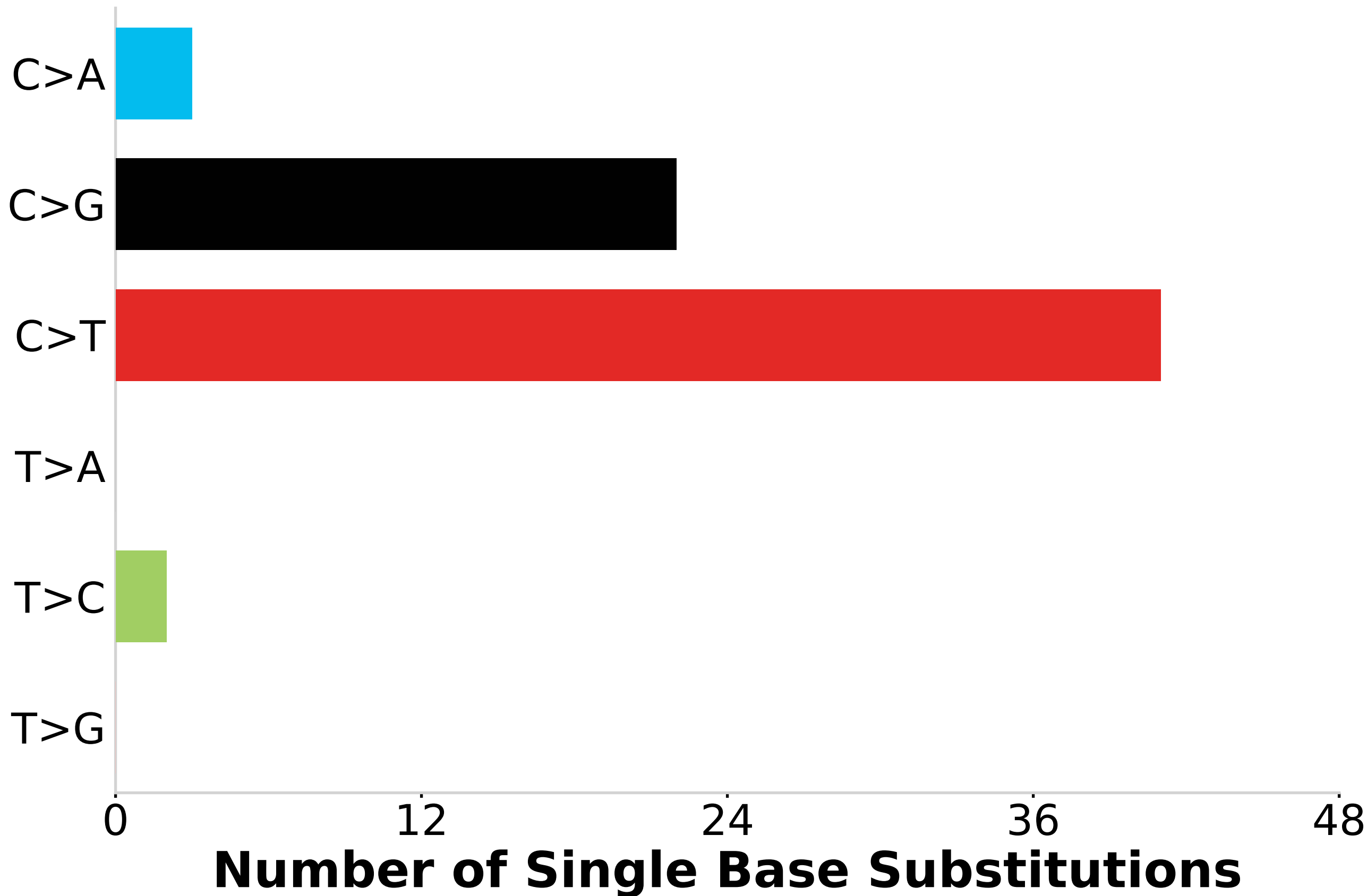
TCGA-ZF-A9RE-01A-11D-A38G-08: 14 subs



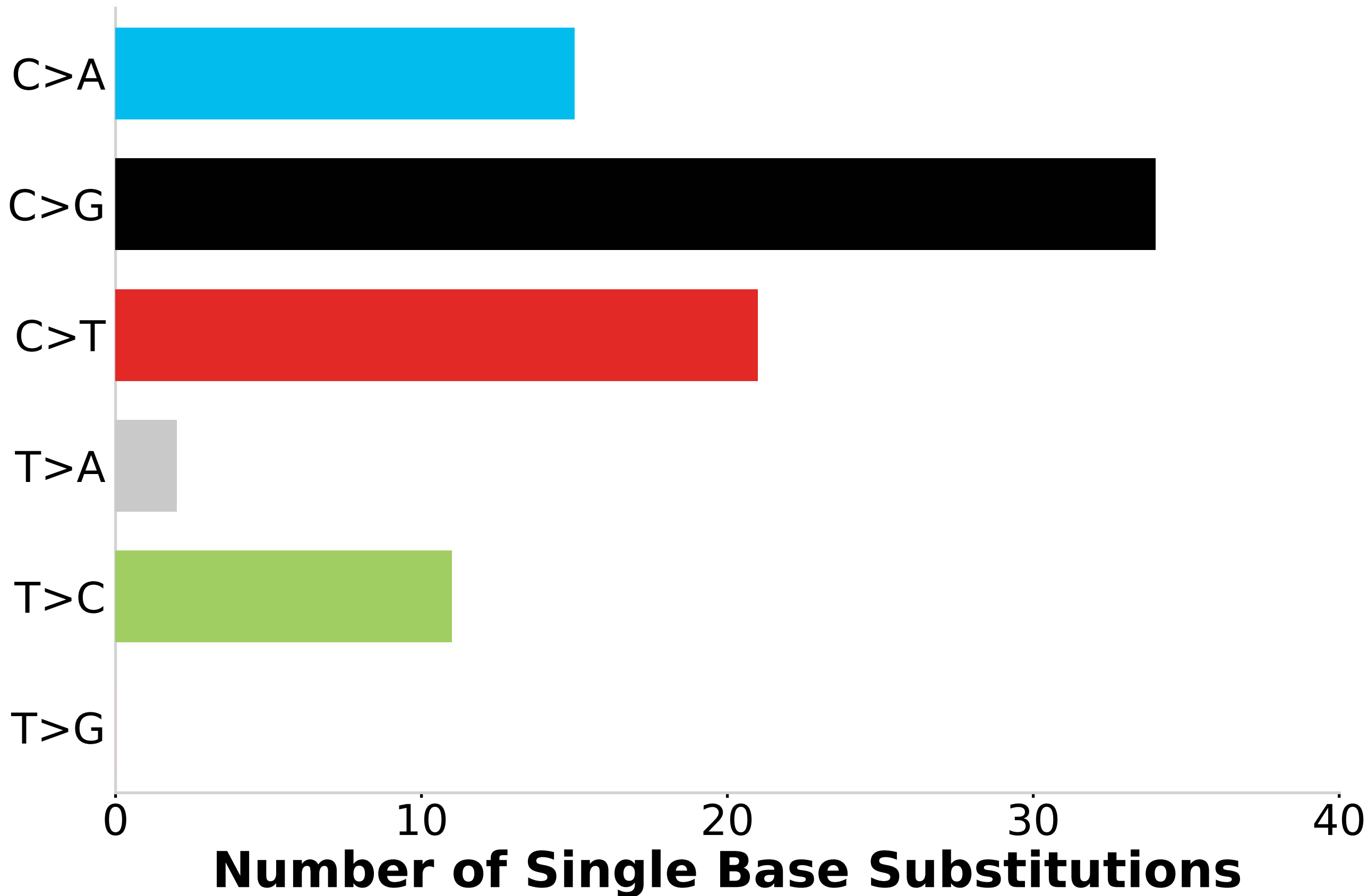
TCGA-ZF-A9RF-01A-11D-A38G-08: 60 subs



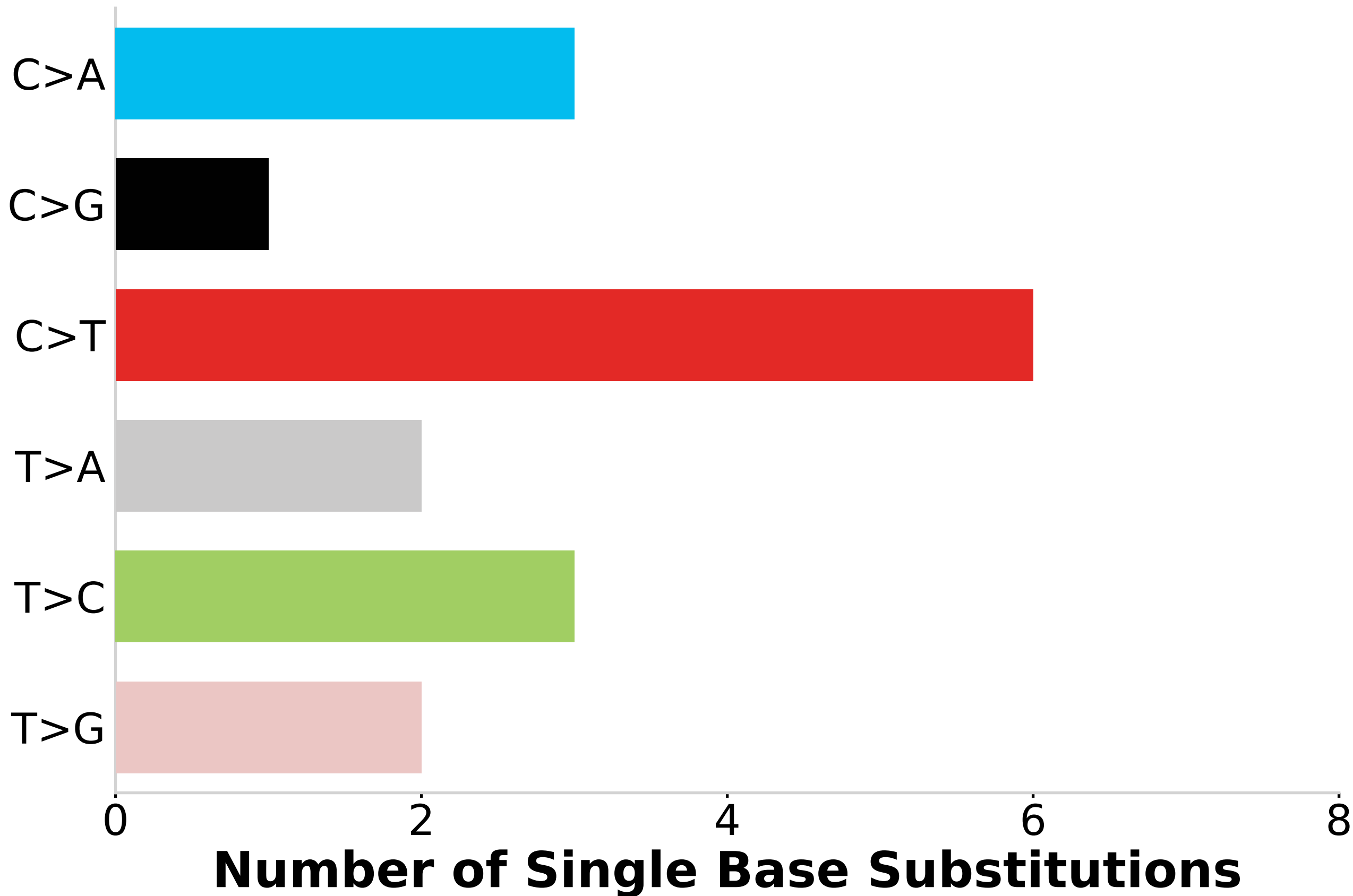
TCGA-ZF-A9RG-01A-21D-A42E-08: 68 subs



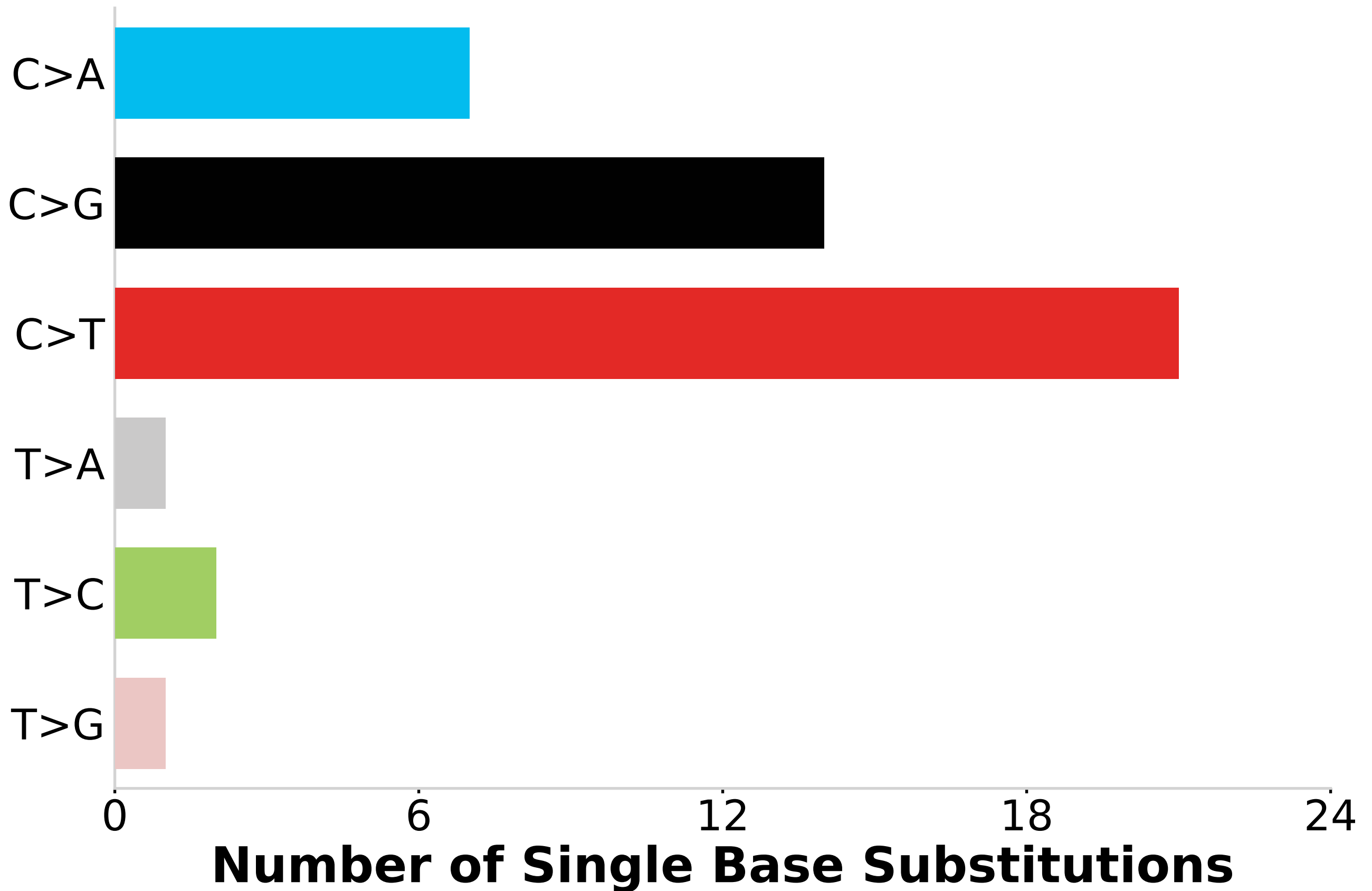
TCGA-ZF-A9RL-01A-11D-A38G-08: 83 subs



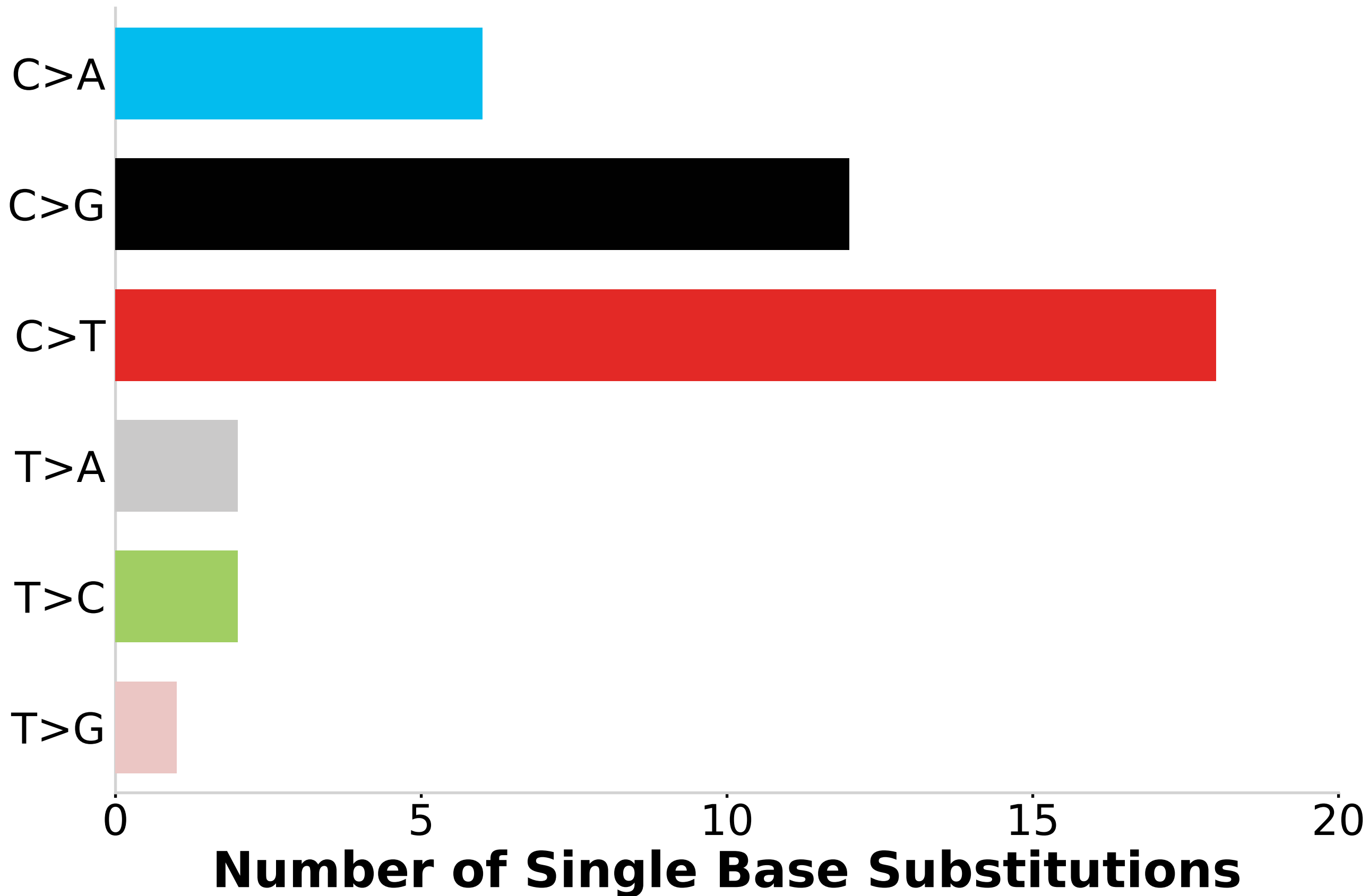
TCGA-ZF-A9RM-01A-11D-A38G-08: 17 subs



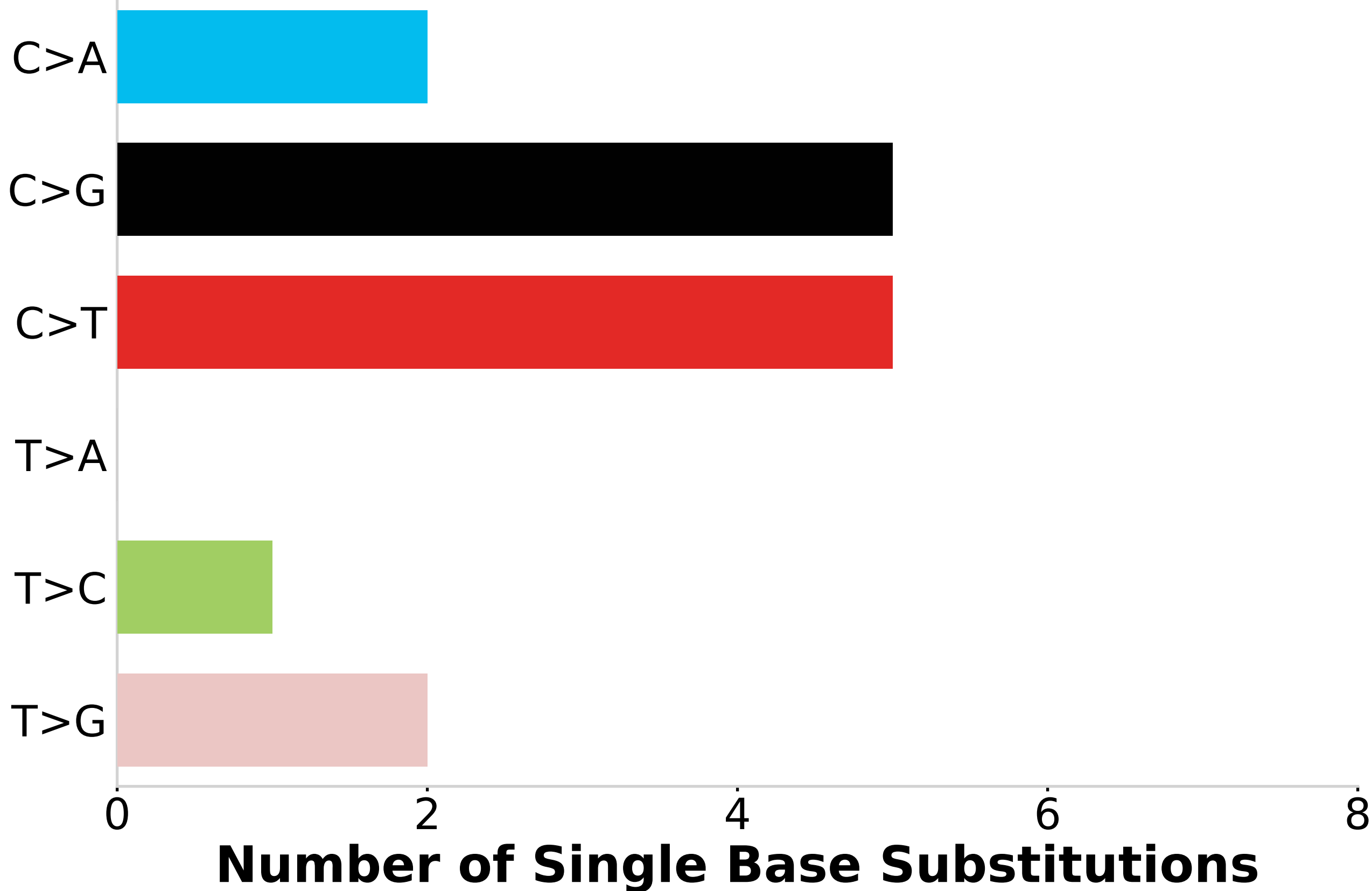
TCGA-ZF-A9RN-01A-11D-A42E-08: 46 subs



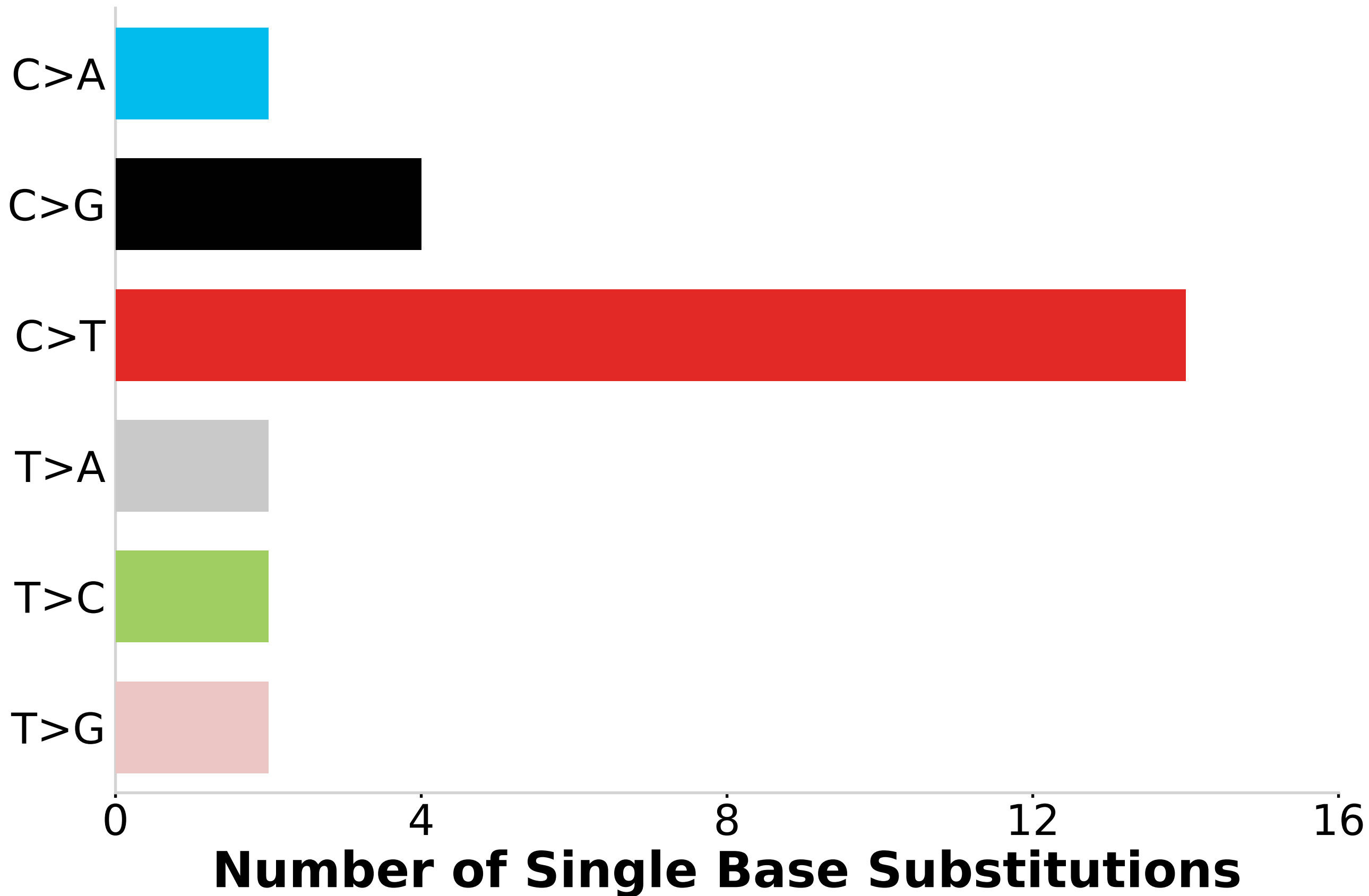
TCGA-ZF-AA4N-01A-11D-A38G-08: 41 subs



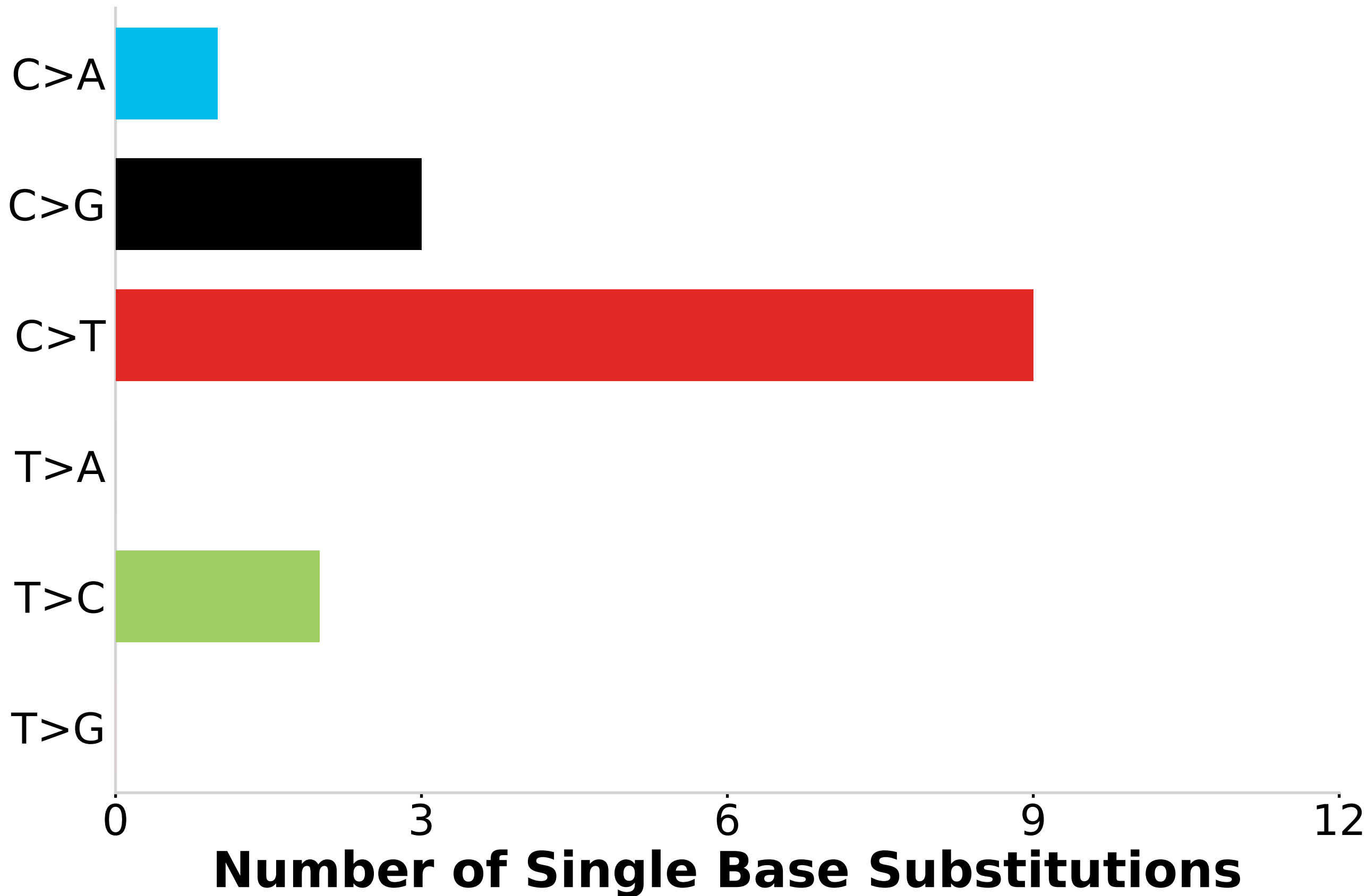
TCGA-ZF-AA4R-01A-11D-A38G-08: 15 subs



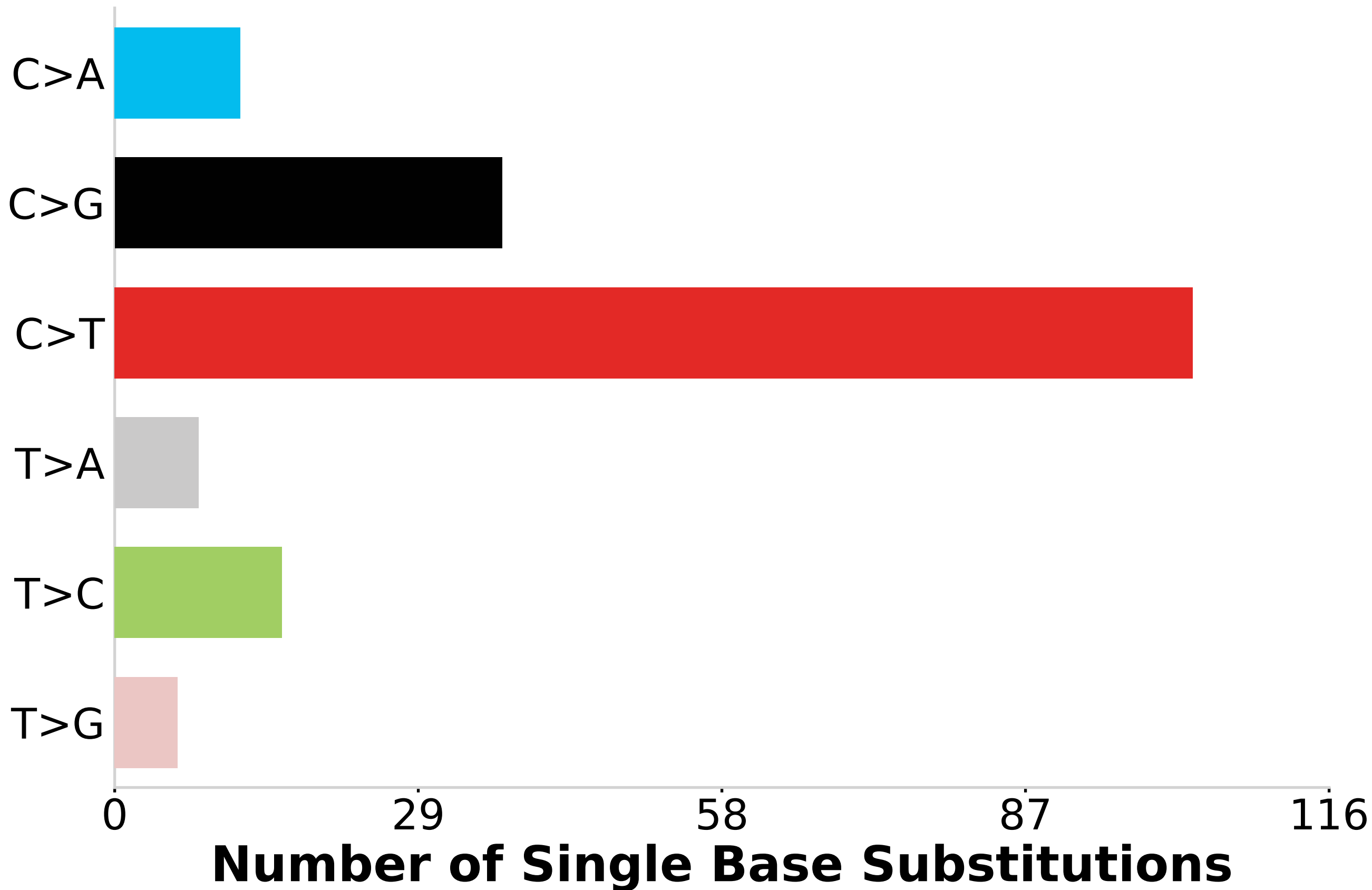
TCGA-ZF-AA4T-01A-11D-A38G-08: 26 subs



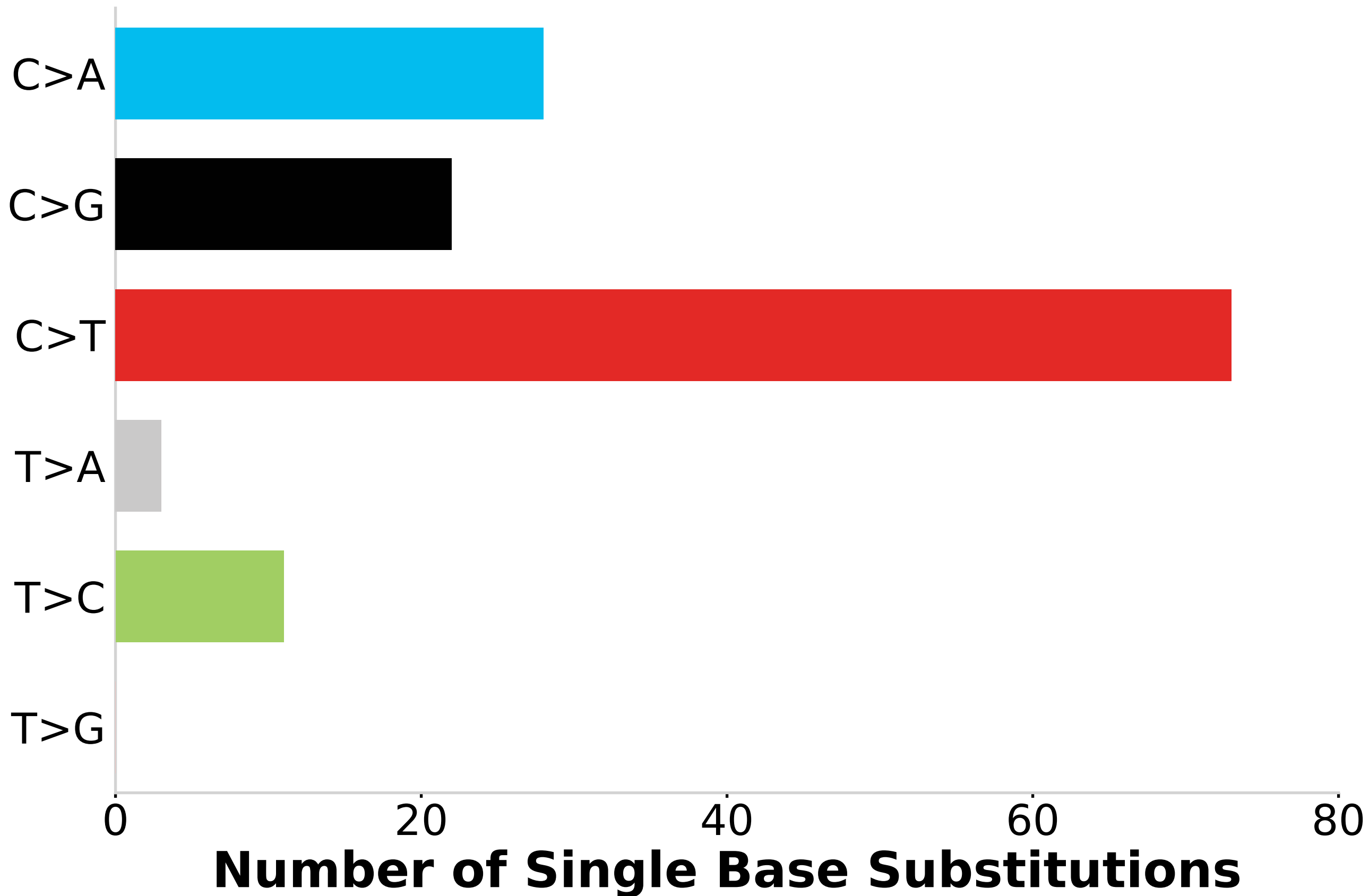
TCGA-ZF-AA4U-01A-11D-A38G-08: 15 subs



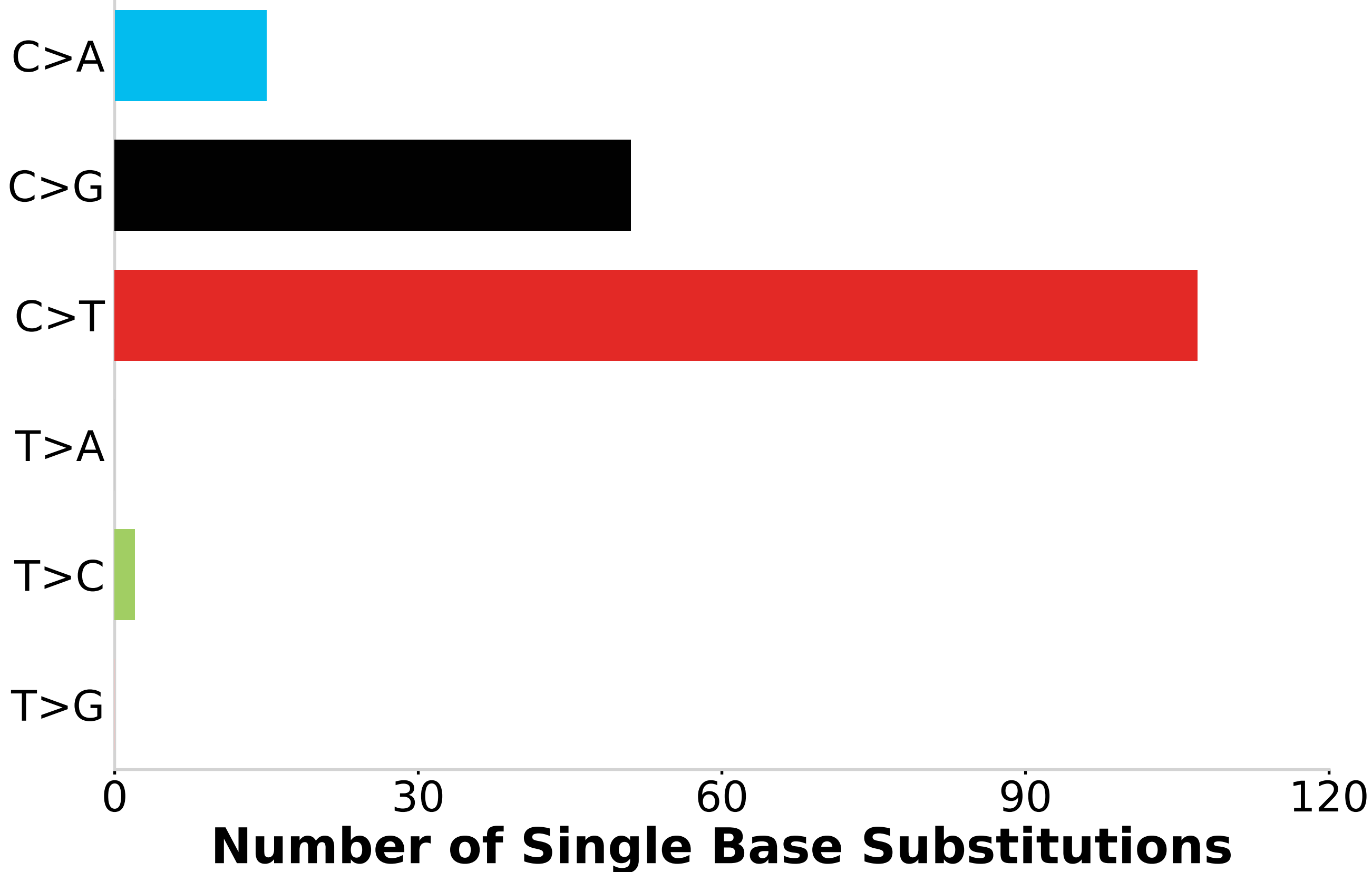
TCGA-ZF-AA4V-01A-11D-A38G-08: 182 sub



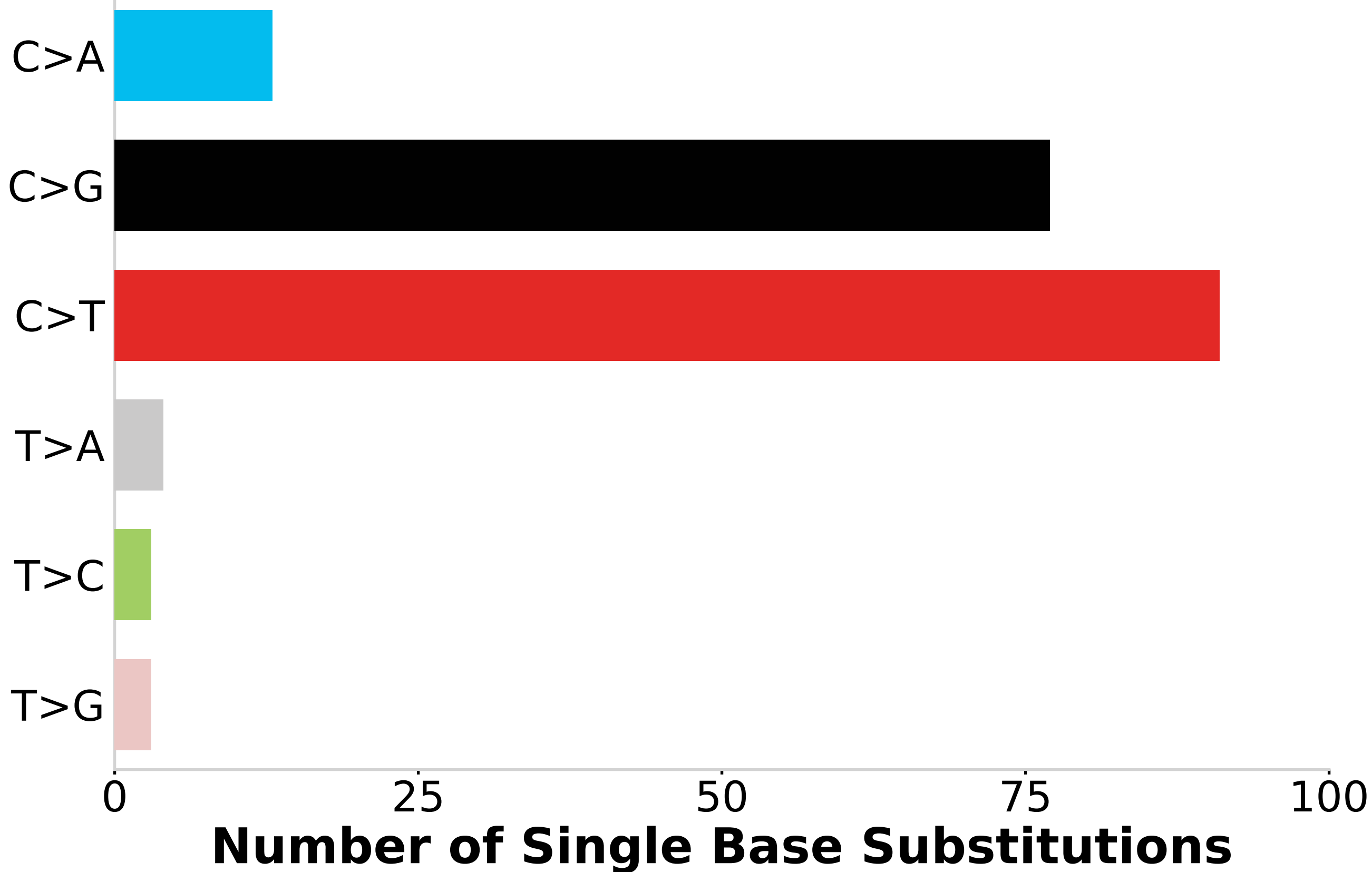
TCGA-ZF-AA4W-01A-12D-A38G-08: 137 substitutions



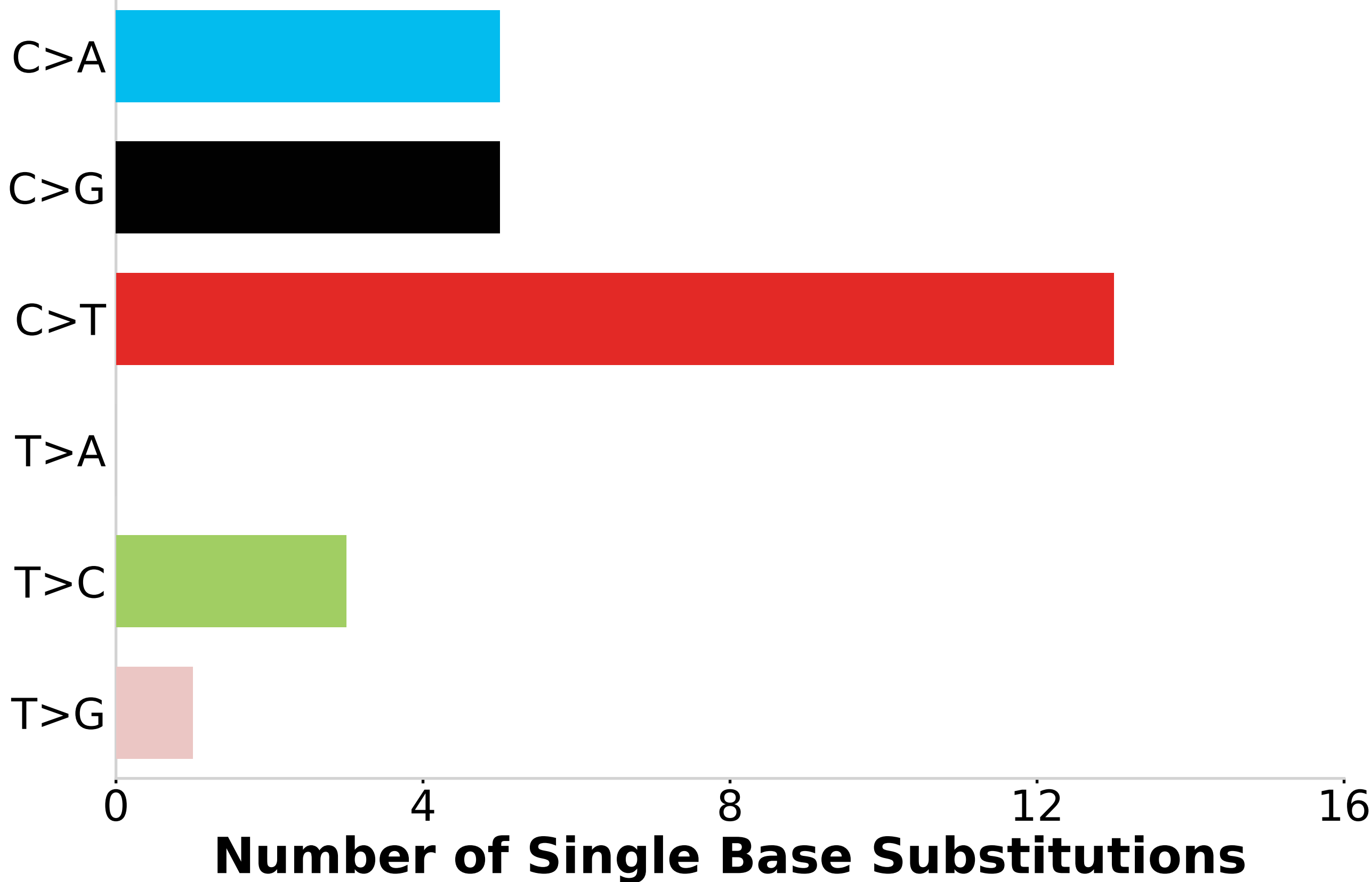
TCGA-ZF-AA4X-01A-11D-A38G-08: 175 sub



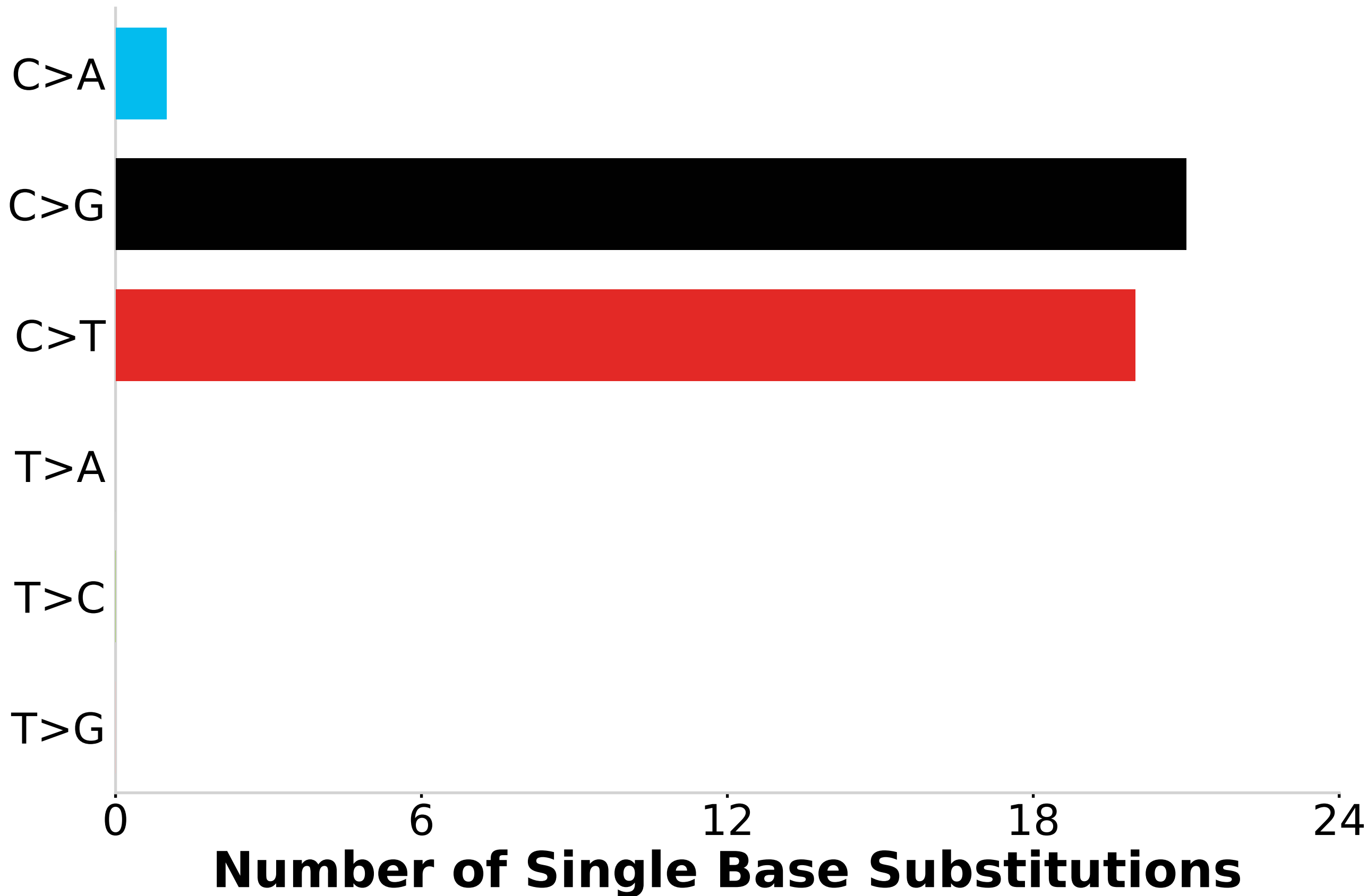
TCGA-ZF-AA51-01A-21D-A391-08: 191 sub



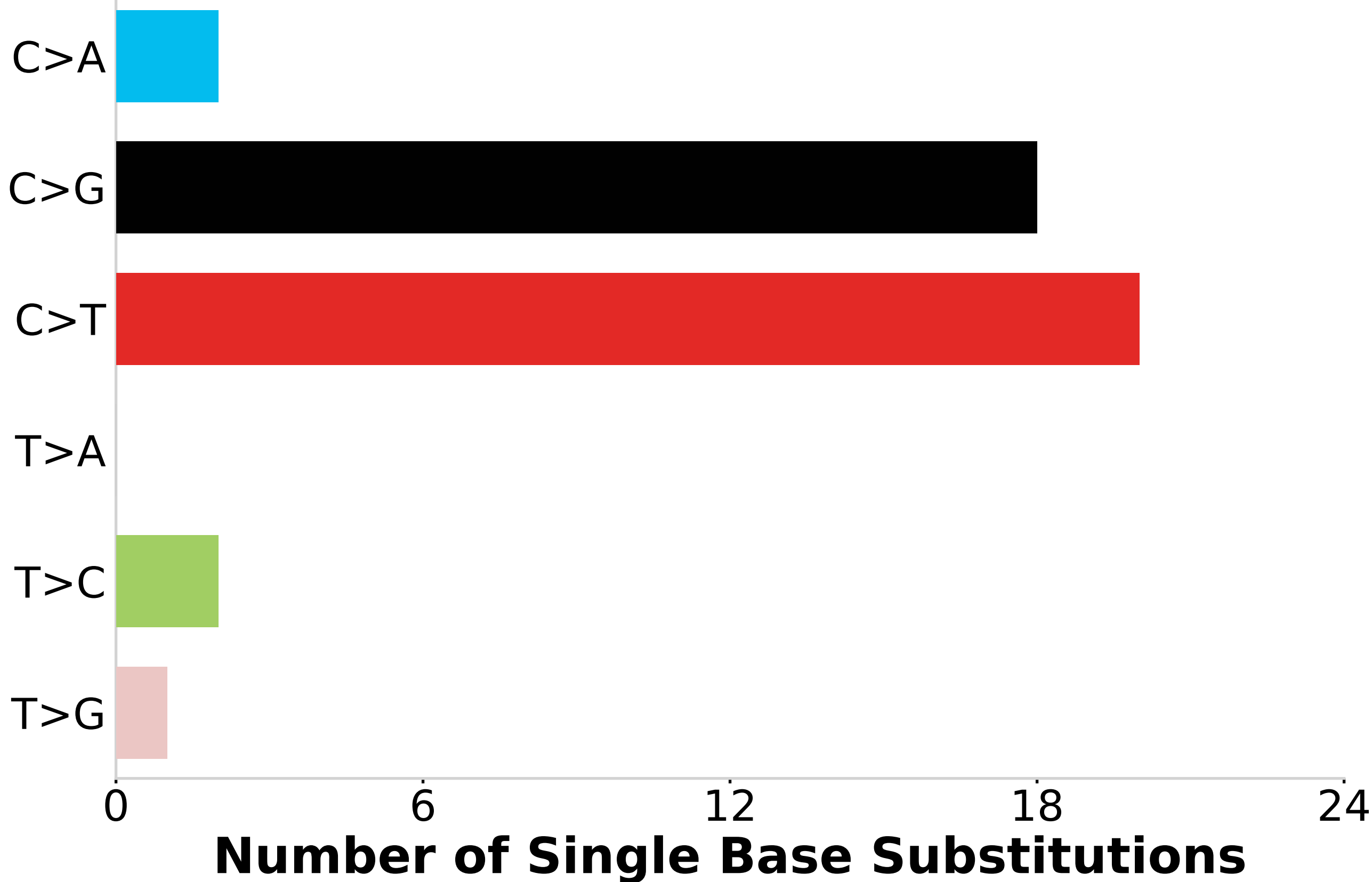
TCGA-ZF-AA52-01A-12D-A391-08: 27 subs



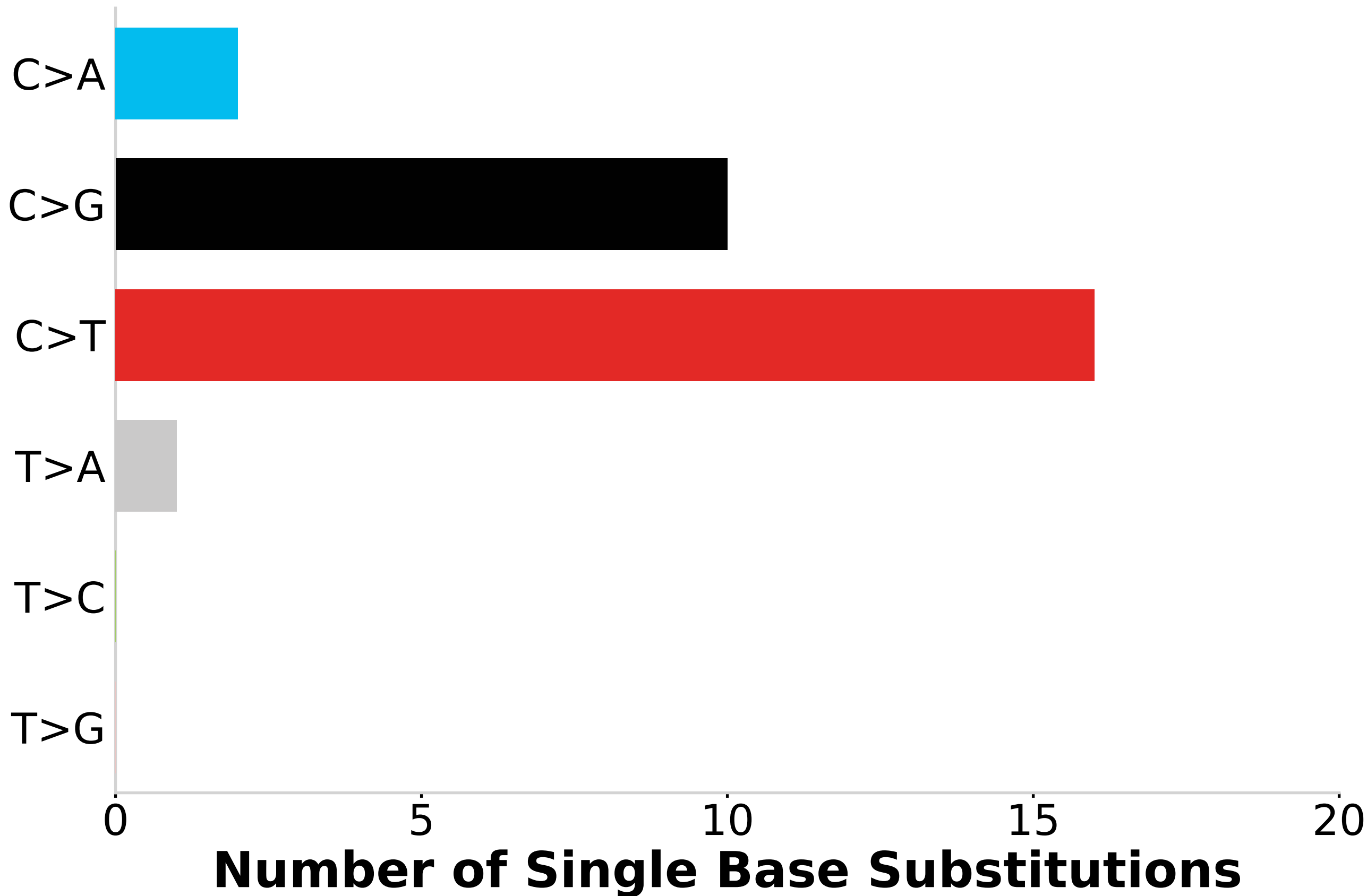
TCGA-ZF-AA53-01A-11D-A391-08: 42 subs



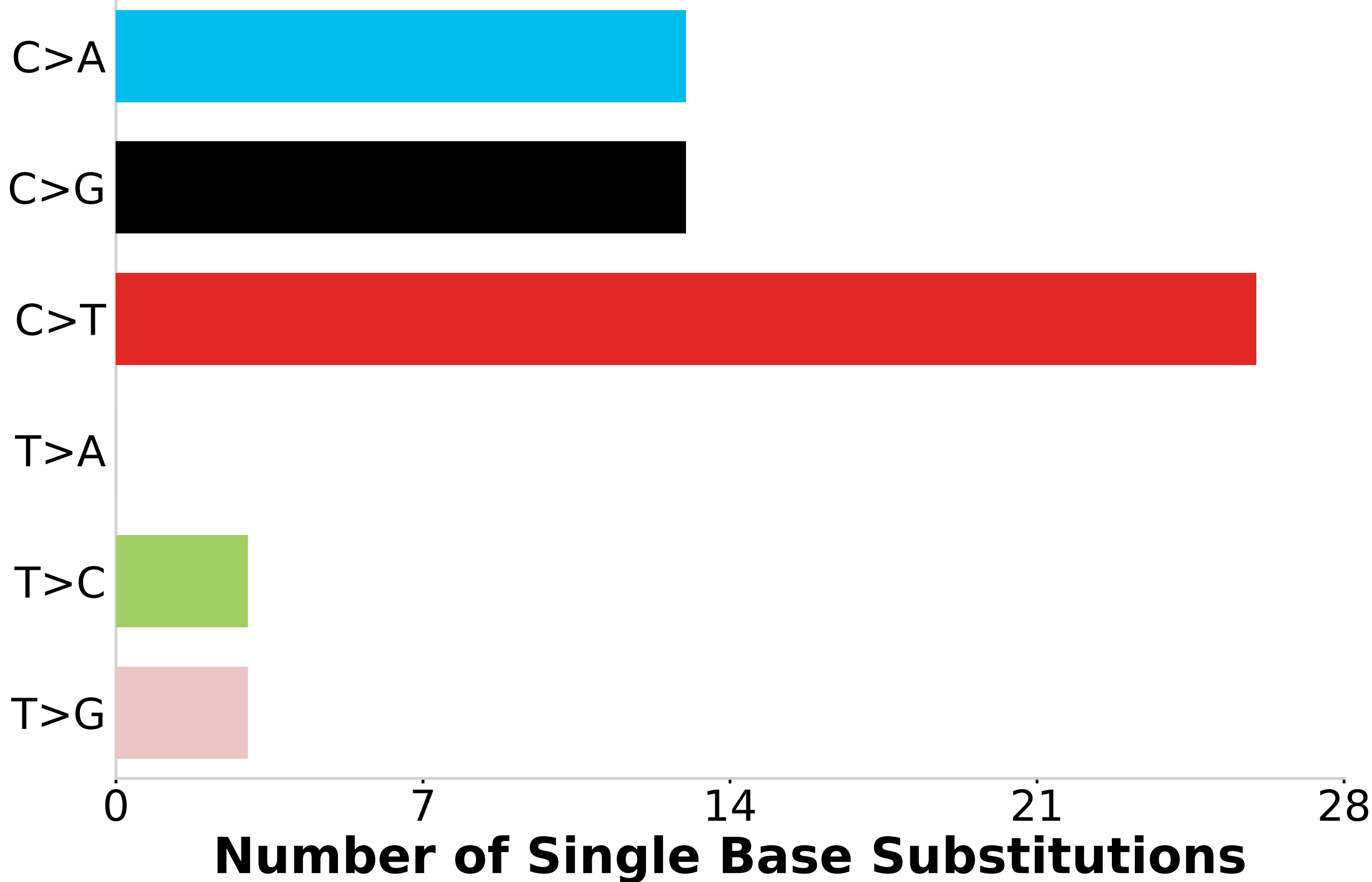
TCGA-ZF-AA54-01A-11D-A391-08: 43 subs



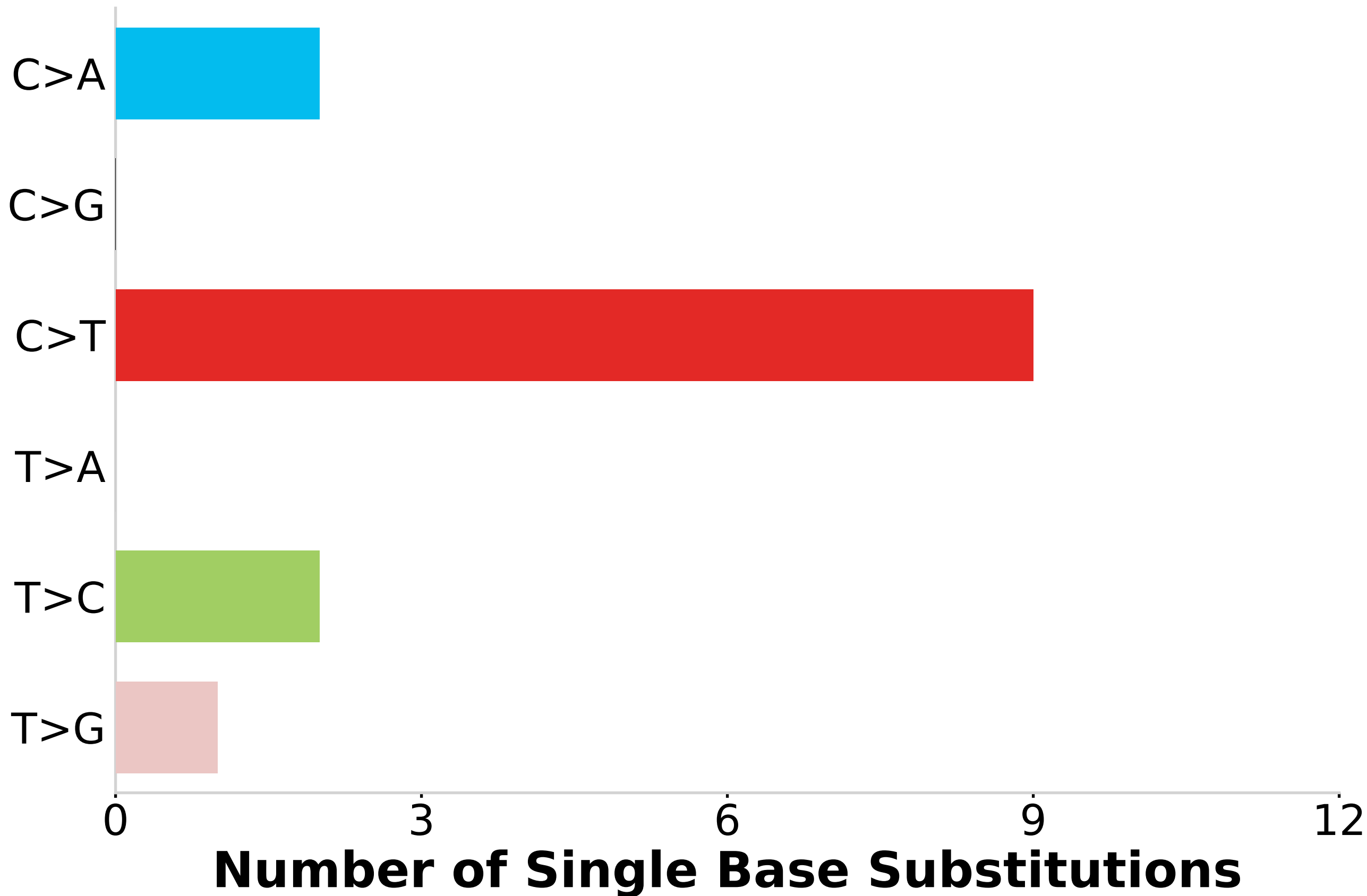
TCGA-ZF-AA56-01A-31D-A391-08: 29 subs



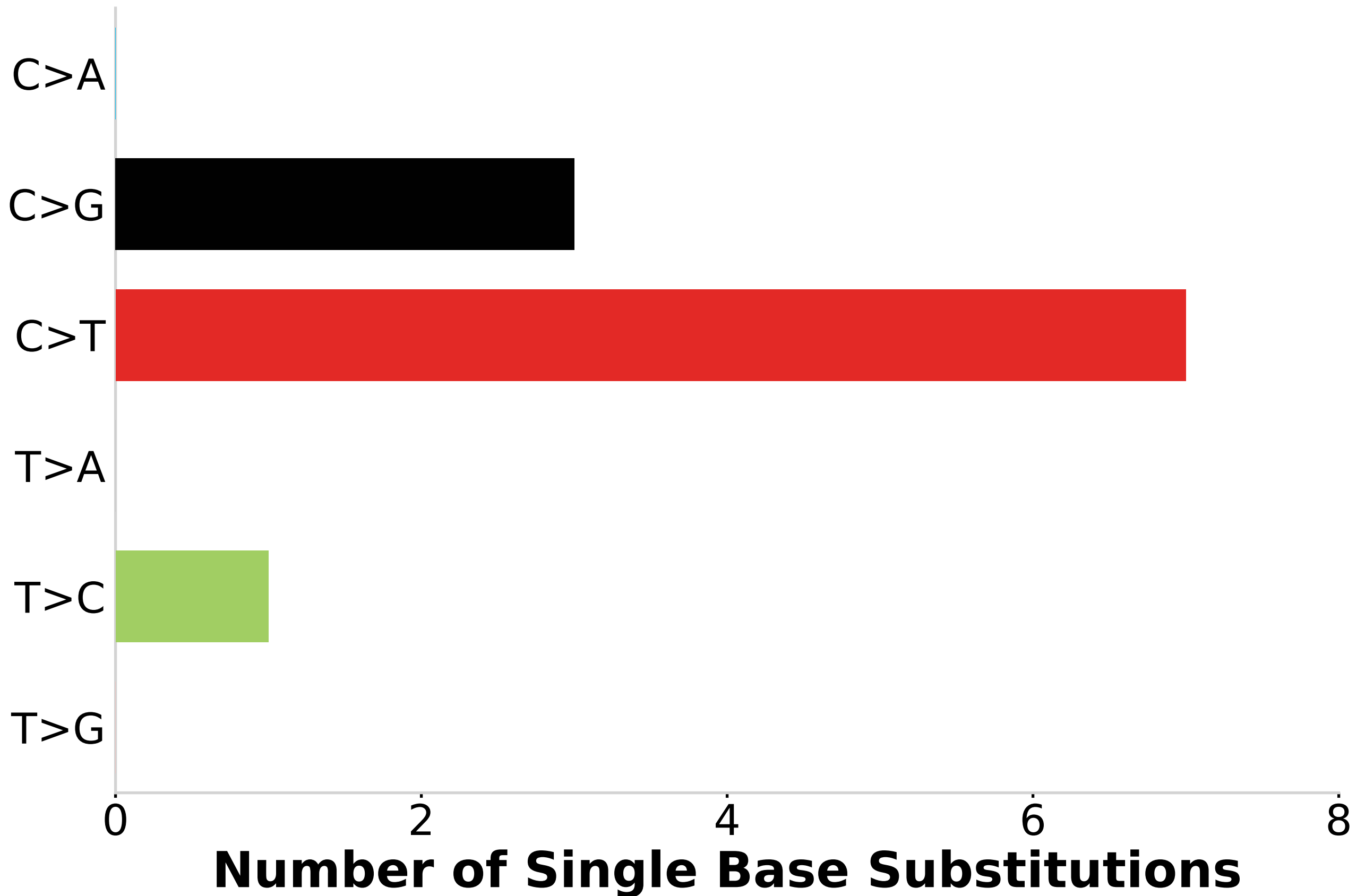
TCGA-ZF-AA58-01A-12D-A42E-08: 58 subs



TCGA-ZF-AA5H-01A-11D-A391-08: 14 subs



TCGA-ZF-AA5N-01A-11D-A42E-08: 11 subs



TCGA-ZF-AA5P-01A-11D-A391-08: 8 subs

