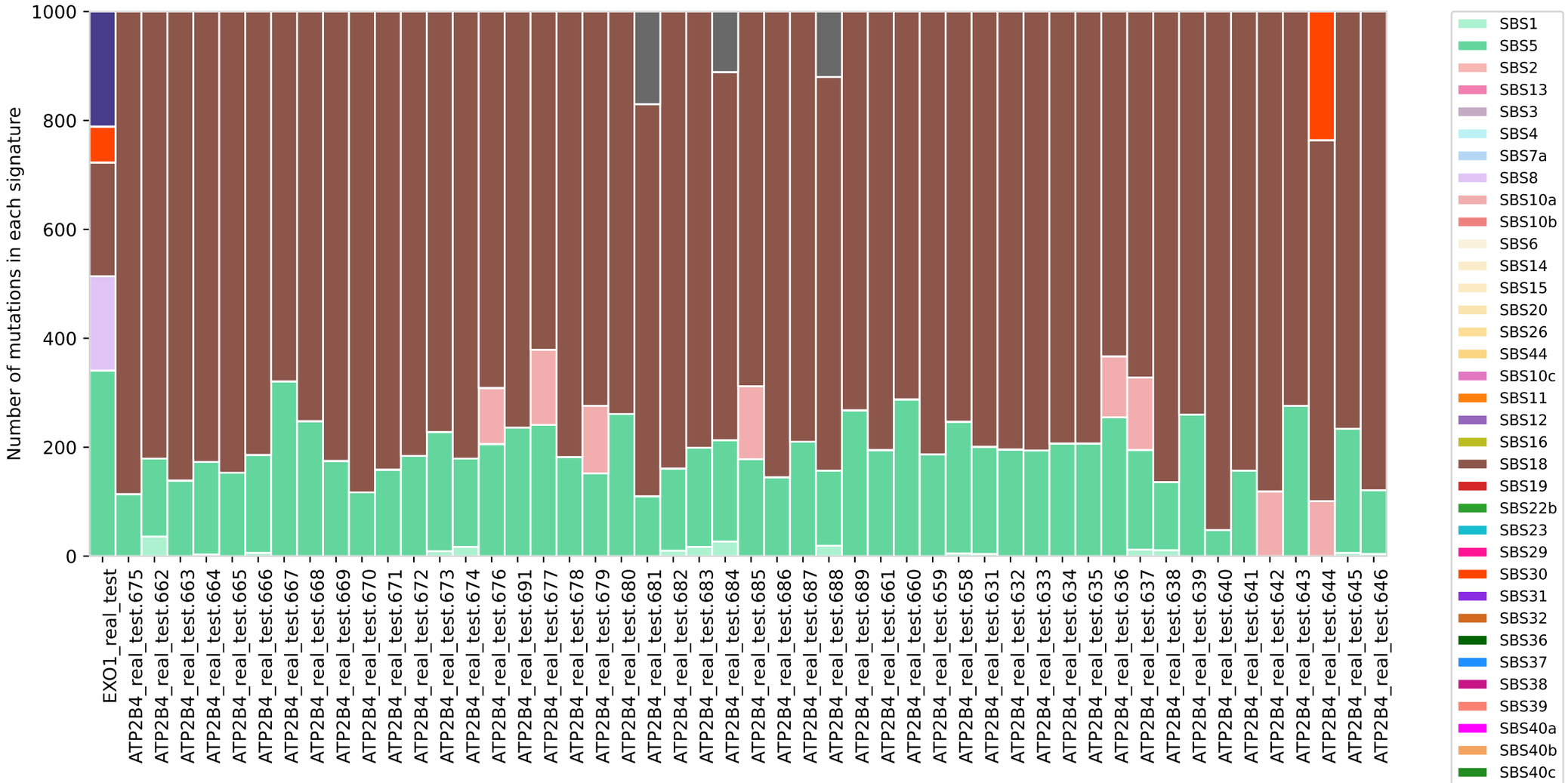
Number of mutations in each signature
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400
200
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ATP2B4_real_test.664
ATP2B4_real_test.665
ATP2B4_real_test.666
ATP2B4_real_test.667
ATP2B4_real_test.668
ATP2B4_real_test.669
ATP2B4_real_test.670
ATP2B4_real_test.671
ATP2B4_real_test.672
ATP2B4_real_test.673
ATP2B4_real_test.674
ATP2B4_real_test.676
ATP2B4_real_test.691
ATP2B4_real_test.677
ATP2B4_real_test.678
ATP2B4_real_test.679
ATP2B4_real_test.680
ATP2B4_real_test.681
ATP2B4_real_test.682
ATP2B4_real_test.683
ATP2B4_real_test.684
ATP2B4_real_test.685
ATP2B4_real_test.686
ATP2B4_real_test.687
ATP2B4_real_test.688
ATP2B4_real_test.689
ATP2B4_real_test.661
ATP2B4_real_test.660
ATP2B4_real_test.659
ATP2B4_real_test.658
ATP2B4_real_test.631
ATP2B4_real_test.632
ATP2B4_real_test.633
ATP2B4_real_test.634
ATP2B4_real_test.635
ATP2B4_real_test.636
ATP2B4_real_test.637
ATP2B4_real_test.638
ATP2B4_real_test.639
ATP2B4_real_test.640
ATP2B4_real_test.641
ATP2B4_real_test.642
ATP2B4_real_test.643
ATP2B4_real_test.644
ATP2B4_real_test.645
ATP2B4_real_test.646
SBS1
SBS5
SBS2
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SBS4
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SBS8
SBS10a
SBS10b
SBS6
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SBS20
SBS26
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SBS10c
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SBS12
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SBS19
SBS22b
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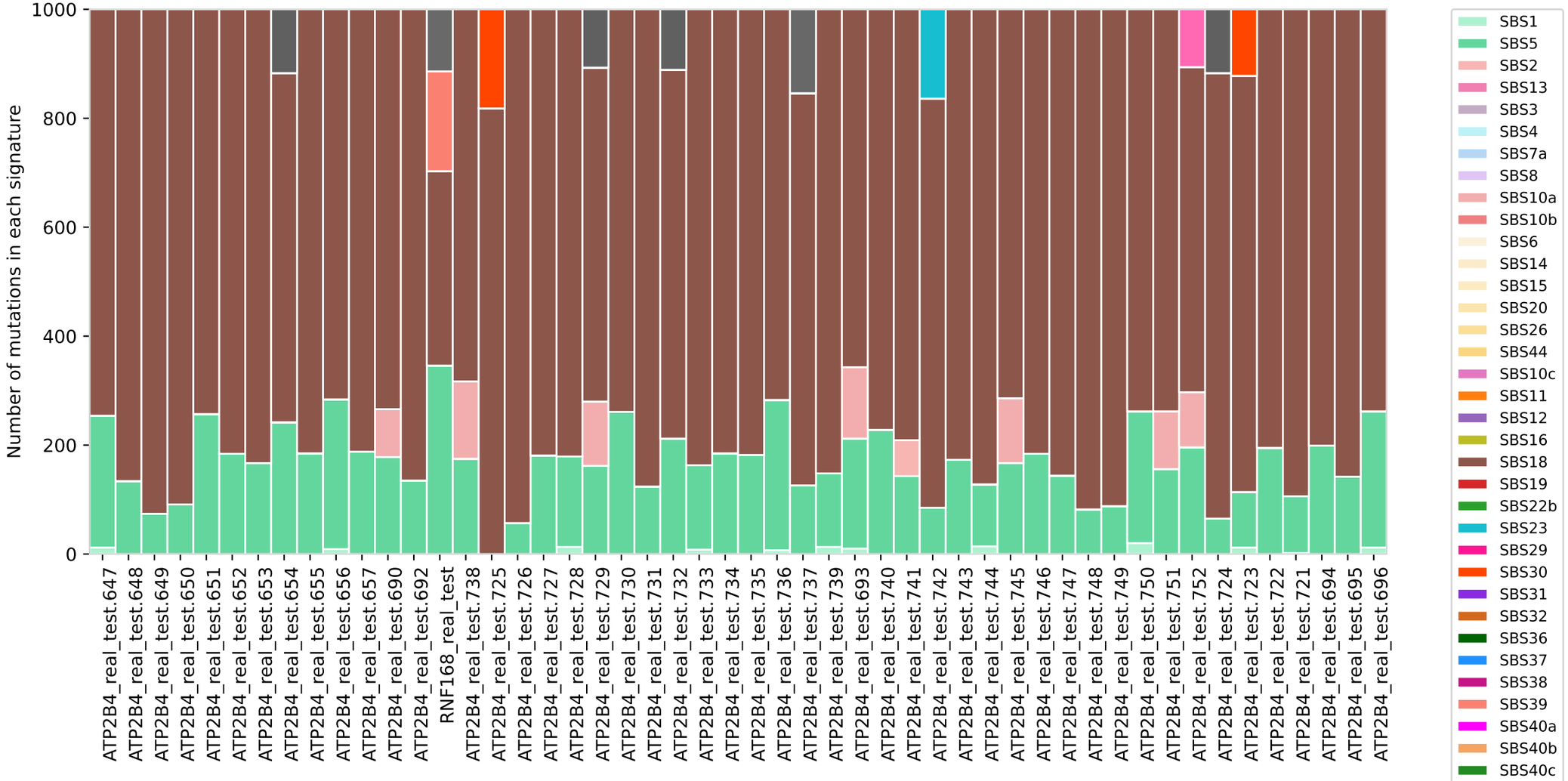
Number of mutations in each signature
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ATP2B4_real_test.650
ATP2B4_real_test.651
ATP2B4_real_test.652
ATP2B4_real_test.653
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ATP2B4_real_test.655
ATP2B4_real_test.656
ATP2B4_real_test.657
ATP2B4_real_test.690
ATP2B4_real_test.692
RNF168_real_test
ATP2B4_real_test.738
ATP2B4_real_test.725
ATP2B4_real_test.726
ATP2B4_real_test.727
ATP2B4_real_test.728
ATP2B4_real_test.729
ATP2B4_real_test.730
ATP2B4_real_test.731
ATP2B4_real_test.732
ATP2B4_real_test.733
ATP2B4_real_test.734
ATP2B4_real_test.735
ATP2B4_real_test.736
ATP2B4_real_test.737
ATP2B4_real_test.739
ATP2B4_real_test.693
ATP2B4_real_test.740
ATP2B4_real_test.741
ATP2B4_real_test.742
ATP2B4_real_test.743
ATP2B4_real_test.744
ATP2B4_real_test.745
ATP2B4_real_test.746
ATP2B4_real_test.747
ATP2B4_real_test.748
ATP2B4_real_test.749
ATP2B4_real_test.750
ATP2B4_real_test.751
ATP2B4_real_test.752
ATP2B4_real_test.724
ATP2B4_real_test.723
ATP2B4_real_test.722
ATP2B4_real_test.721
ATP2B4_real_test.694
ATP2B4_real_test.695
ATP2B4_real_test.696
SBS1
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SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
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SBS22b
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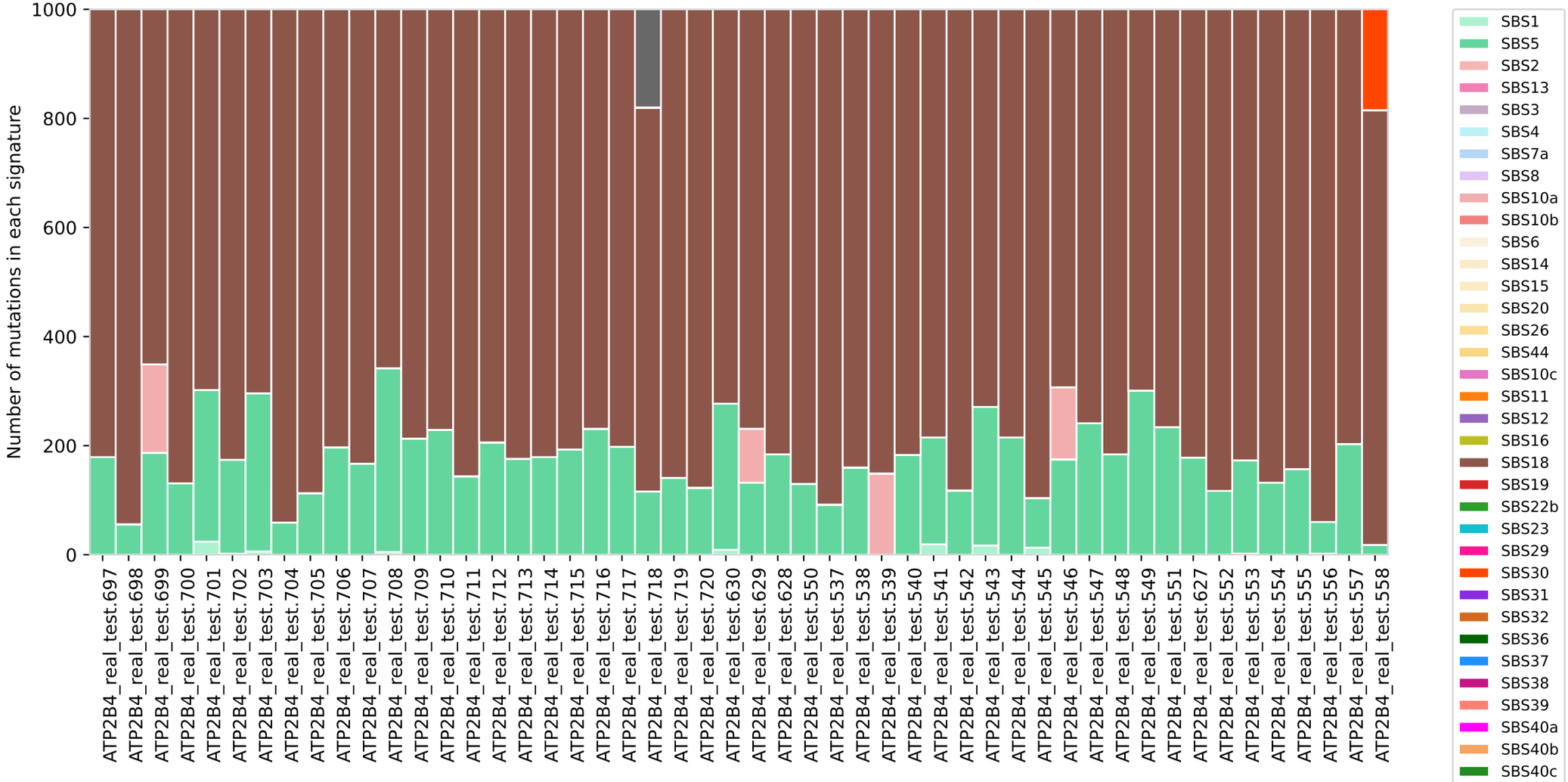
Number of mutations in each signature
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600
400
200
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ATP2B4_real_test.699
ATP2B4_real_test.700
ATP2B4_real_test.701
ATP2B4_real_test.702
ATP2B4_real_test.703
ATP2B4_real_test.704
ATP2B4_real_test.705
ATP2B4_real_test.706
ATP2B4_real_test.707
ATP2B4_real_test.708
ATP2B4_real_test.709
ATP2B4_real_test.710
ATP2B4_real_test.711
ATP2B4_real_test.712
ATP2B4_real_test.713
ATP2B4_real_test.714
ATP2B4_real_test.715
ATP2B4_real_test.716
ATP2B4_real_test.717
ATP2B4_real_test.718
ATP2B4_real_test.719
ATP2B4_real_test.720
ATP2B4_real_test.630
ATP2B4_real_test.629
ATP2B4_real_test.628
ATP2B4_real_test.550
ATP2B4_real_test.537
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ATP2B4_real_test.539
ATP2B4_real_test.540
ATP2B4_real_test.541
ATP2B4_real_test.542
ATP2B4_real_test.543
ATP2B4_real_test.544
ATP2B4_real_test.545
ATP2B4_real_test.546
ATP2B4_real_test.547
ATP2B4_real_test.548
ATP2B4_real_test.549
ATP2B4_real_test.551
ATP2B4_real_test.627
ATP2B4_real_test.552
ATP2B4_real_test.553
ATP2B4_real_test.554
ATP2B4_real_test.555
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SBS4
SBS7a
SBS8
SBS10a
SBS10b
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SBS44
SBS10c
SBS11
SBS12
SBS16
SBS18
SBS19
SBS22b
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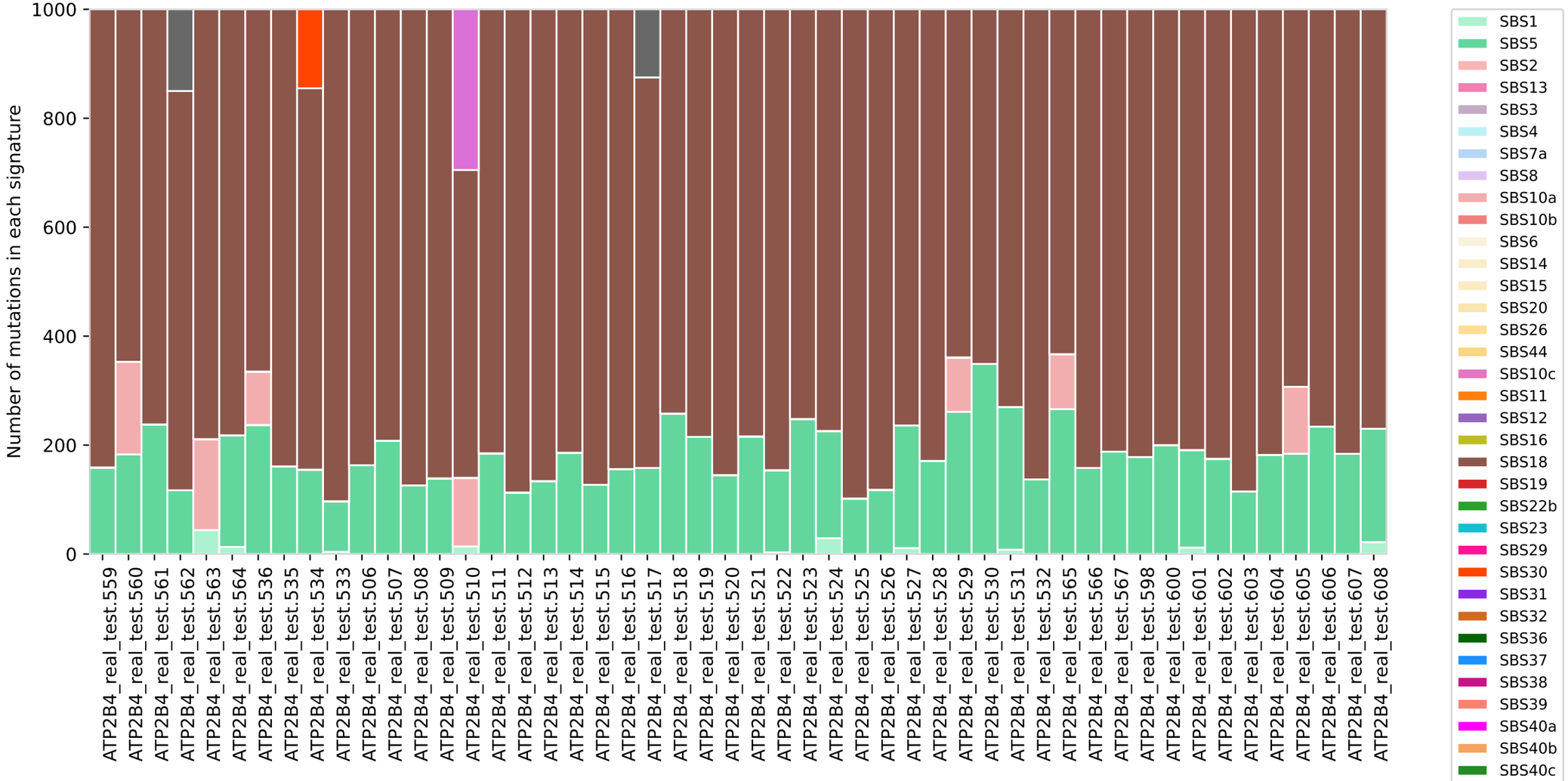
Number of mutations in each signature
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400
200
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ATP2B4_real_test.536
ATP2B4_real_test.535
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ATP2B4_real_test.511
ATP2B4_real_test.512
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ATP2B4_real_test.528
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ATP2B4_real_test.607
ATP2B4_real_test.608
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SBS4
SBS7a
SBS8
SBS10a
SBS10b
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SBS12
SBS16
SBS18
SBS19
SBS22b
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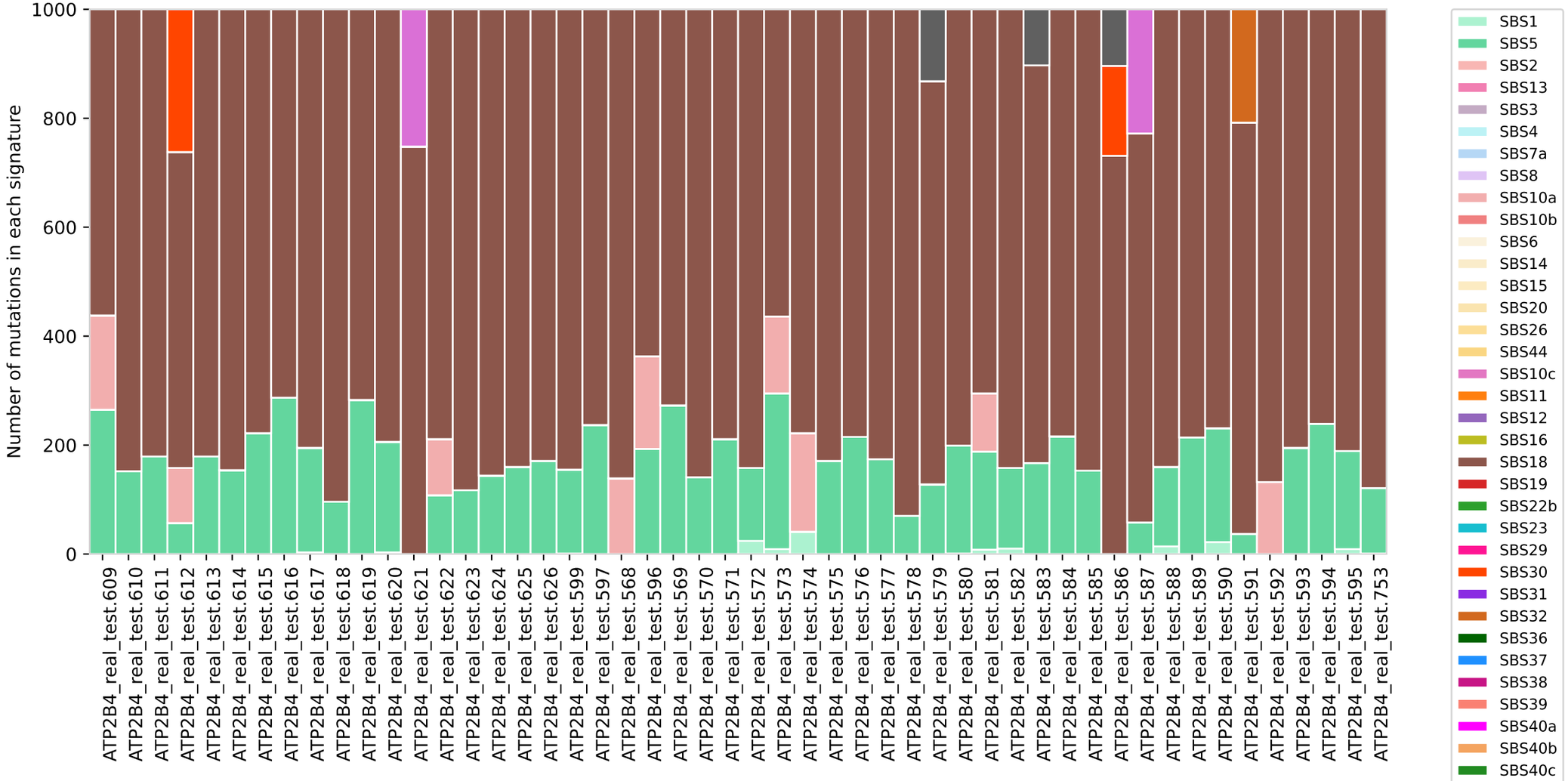
Number of mutations in each signature
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400
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ATP2B4_real_test.613
ATP2B4_real_test.614
ATP2B4_real_test.615
ATP2B4_real_test.616
ATP2B4_real_test.617
ATP2B4_real_test.618
ATP2B4_real_test.619
ATP2B4_real_test.620
ATP2B4_real_test.621
ATP2B4_real_test.622
ATP2B4_real_test.623
ATP2B4_real_test.624
ATP2B4_real_test.625
ATP2B4_real_test.626
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ATP2B4_real_test.572
ATP2B4_real_test.573
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ATP2B4_real_test.580
ATP2B4_real_test.581
ATP2B4_real_test.582
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ATP2B4_real_test.584
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ATP2B4_real_test.586
ATP2B4_real_test.587
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ATP2B4_real_test.593
ATP2B4_real_test.594
ATP2B4_real_test.595
ATP2B4_real_test.753
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SBS19
SBS22b
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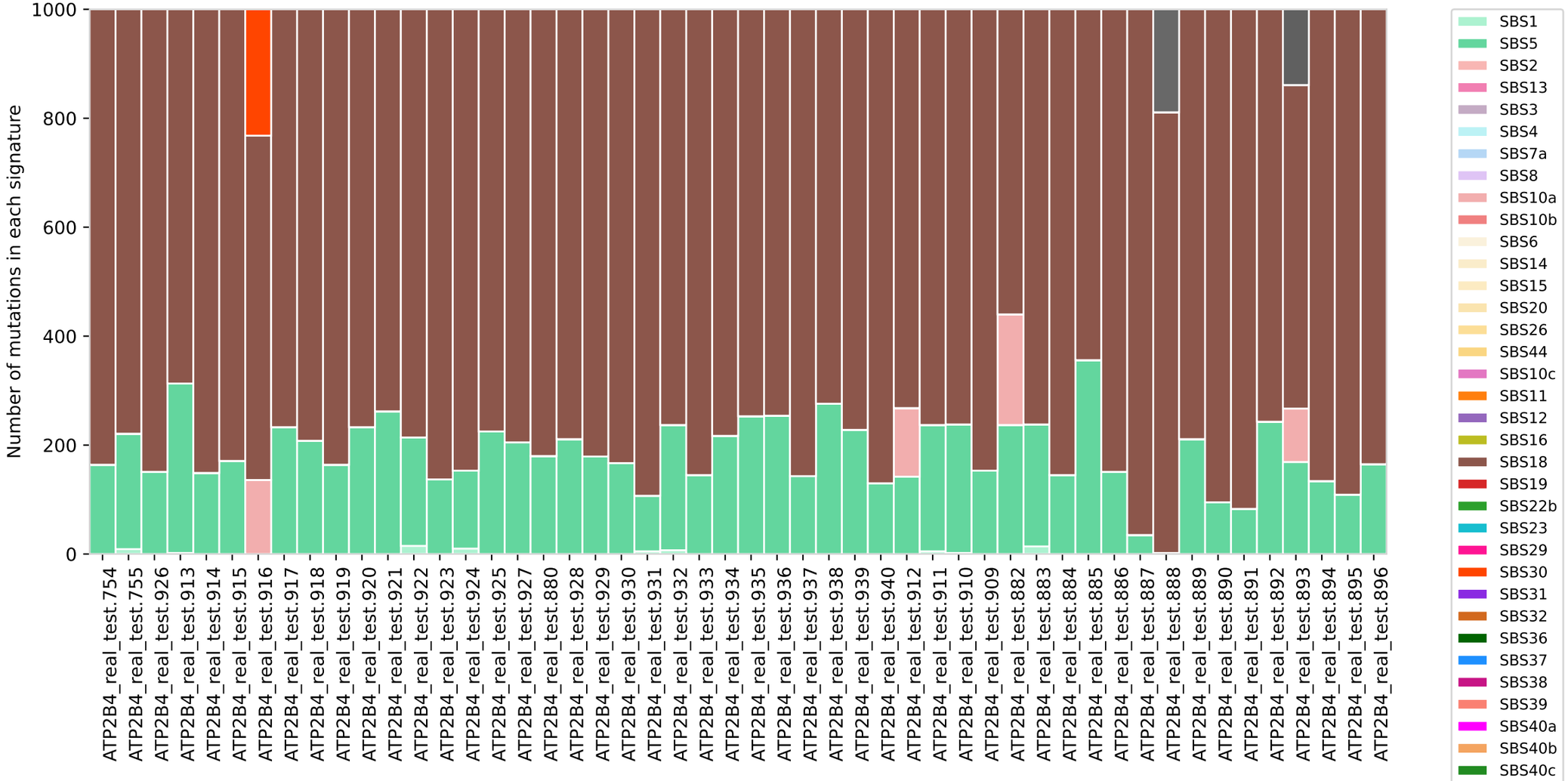
Number of mutations in each signature
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ATP2B4_real_test.914
ATP2B4_real_test.915
ATP2B4_real_test.916
ATP2B4_real_test.917
ATP2B4_real_test.918
ATP2B4_real_test.919
ATP2B4_real_test.920
ATP2B4_real_test.921
ATP2B4_real_test.922
ATP2B4_real_test.923
ATP2B4_real_test.924
ATP2B4_real_test.925
ATP2B4_real_test.927
ATP2B4_real_test.880
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ATP2B4_real_test.930
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ATP2B4_real_test.940
ATP2B4_real_test.912
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ATP2B4_real_test.910
ATP2B4_real_test.909
ATP2B4_real_test.882
ATP2B4_real_test.883
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ATP2B4_real_test.888
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ATP2B4_real_test.891
ATP2B4_real_test.892
ATP2B4_real_test.893
ATP2B4_real_test.894
ATP2B4_real_test.895
ATP2B4_real_test.896
SBS1
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SBS4
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SBS8
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SBS19
SBS22b
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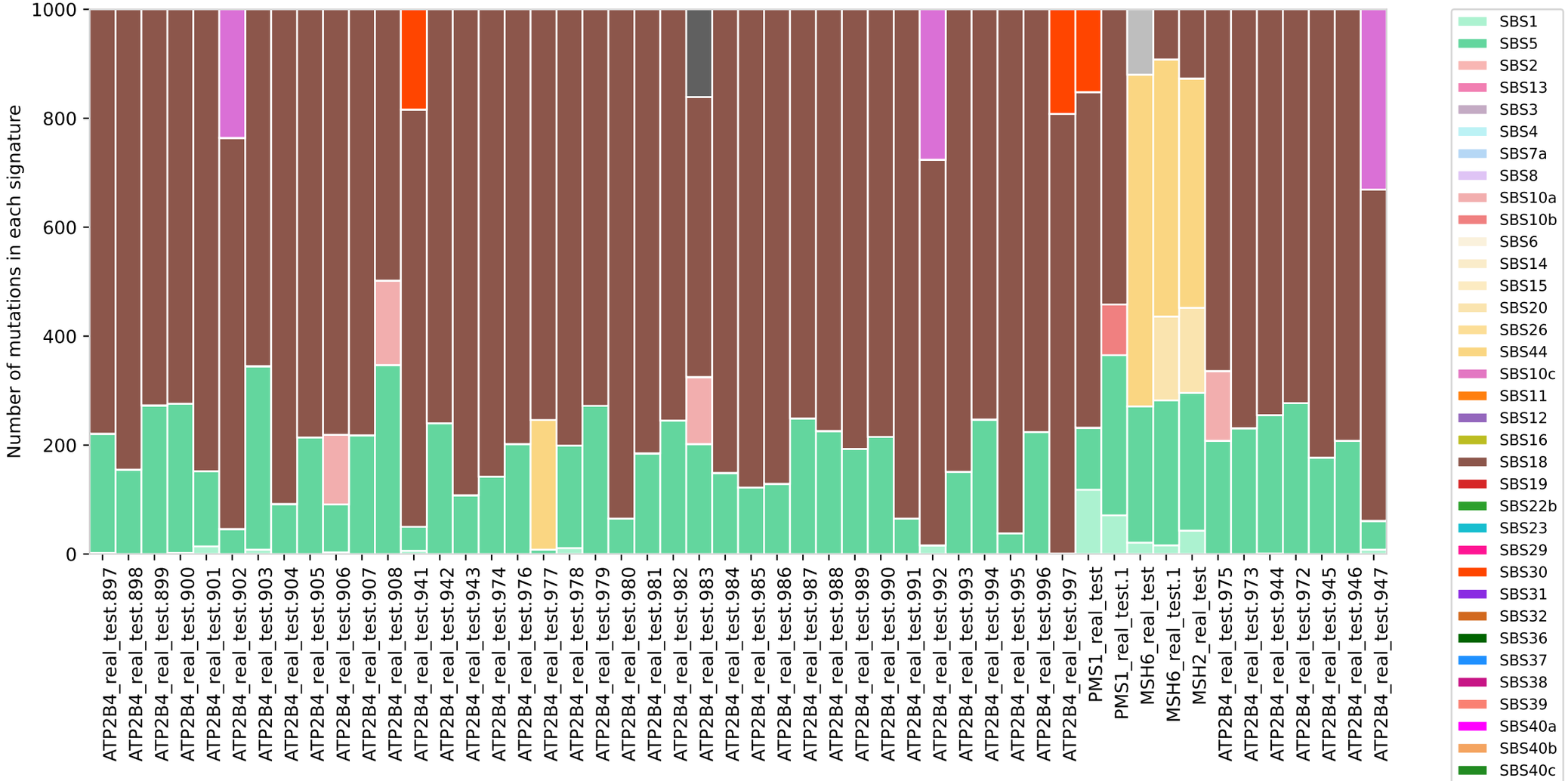
Number of mutations in each signature
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200
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ATP2B4_real_test.902
ATP2B4_real_test.903
ATP2B4_real_test.904
ATP2B4_real_test.905
ATP2B4_real_test.906
ATP2B4_real_test.907
ATP2B4_real_test.908
ATP2B4_real_test.941
ATP2B4_real_test.942
ATP2B4_real_test.943
ATP2B4_real_test.974
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ATP2B4_real_test.977
ATP2B4_real_test.978
ATP2B4_real_test.979
ATP2B4_real_test.980
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ATP2B4_real_test.983
ATP2B4_real_test.984
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ATP2B4_real_test.986
ATP2B4_real_test.987
ATP2B4_real_test.988
ATP2B4_real_test.989
ATP2B4_real_test.990
ATP2B4_real_test.991
ATP2B4_real_test.992
ATP2B4_real_test.993
ATP2B4_real_test.994
ATP2B4_real_test.995
ATP2B4_real_test.996
ATP2B4_real_test.997
PMS1_real_test
PMS1_real_test.1
MSH6_real_test
MSH6_real_test.1
MSH2_real_test
ATP2B4_real_test.975
ATP2B4_real_test.973
ATP2B4_real_test.944
ATP2B4_real_test.972
ATP2B4_real_test.945
ATP2B4_real_test.946
ATP2B4_real_test.947
SBS1
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SBS15
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SBS16
SBS18
SBS19
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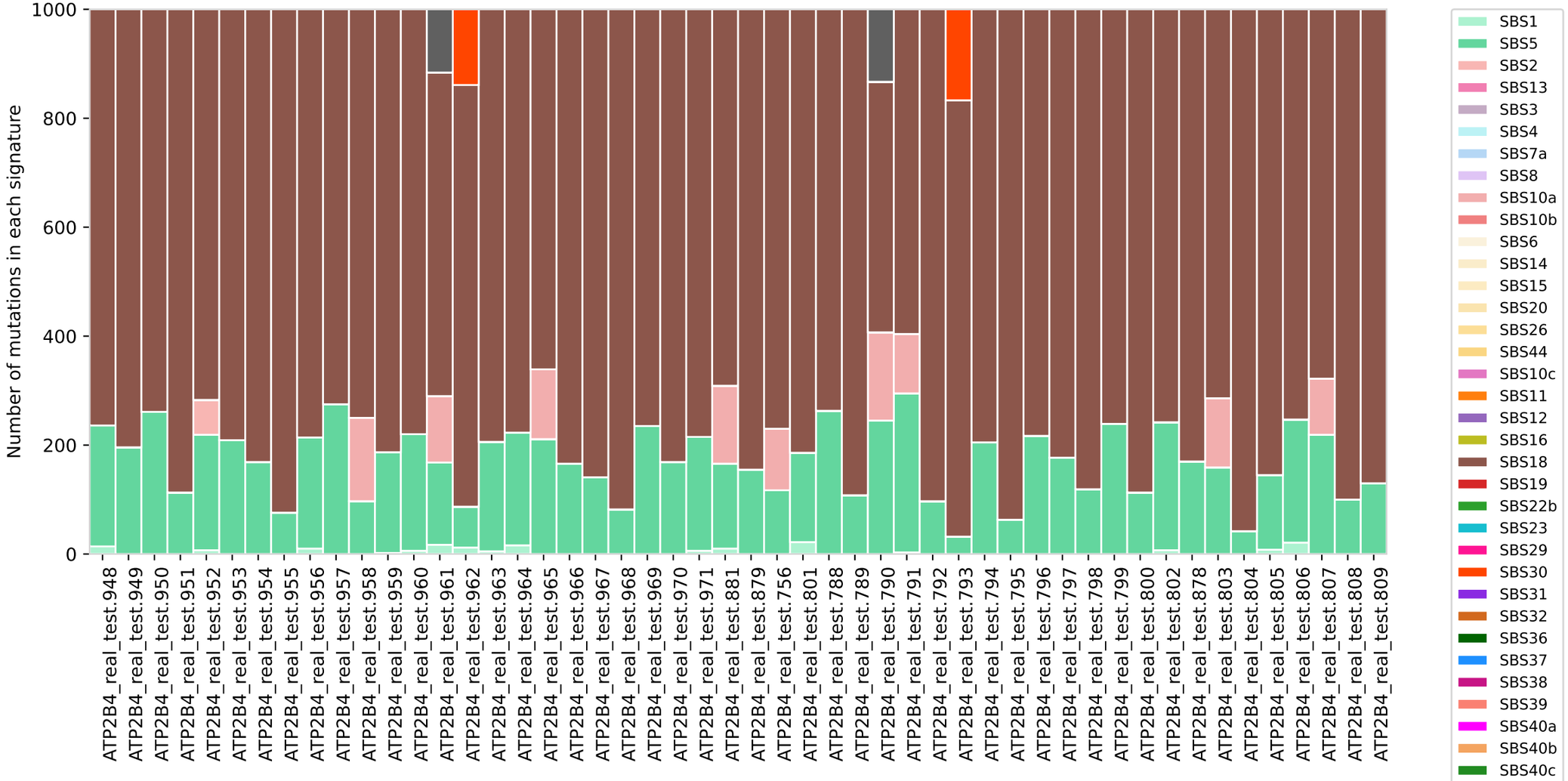
Number of mutations in each signature
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ATP2B4_real_test.953
ATP2B4_real_test.954
ATP2B4_real_test.955
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ATP2B4_real_test.962
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ATP2B4_real_test.964
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ATP2B4_real_test.966
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ATP2B4_real_test.971
ATP2B4_real_test.881
ATP2B4_real_test.879
ATP2B4_real_test.756
ATP2B4_real_test.801
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ATP2B4_real_test.793
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ATP2B4_real_test.809
SBS1
SBS5
SBS2
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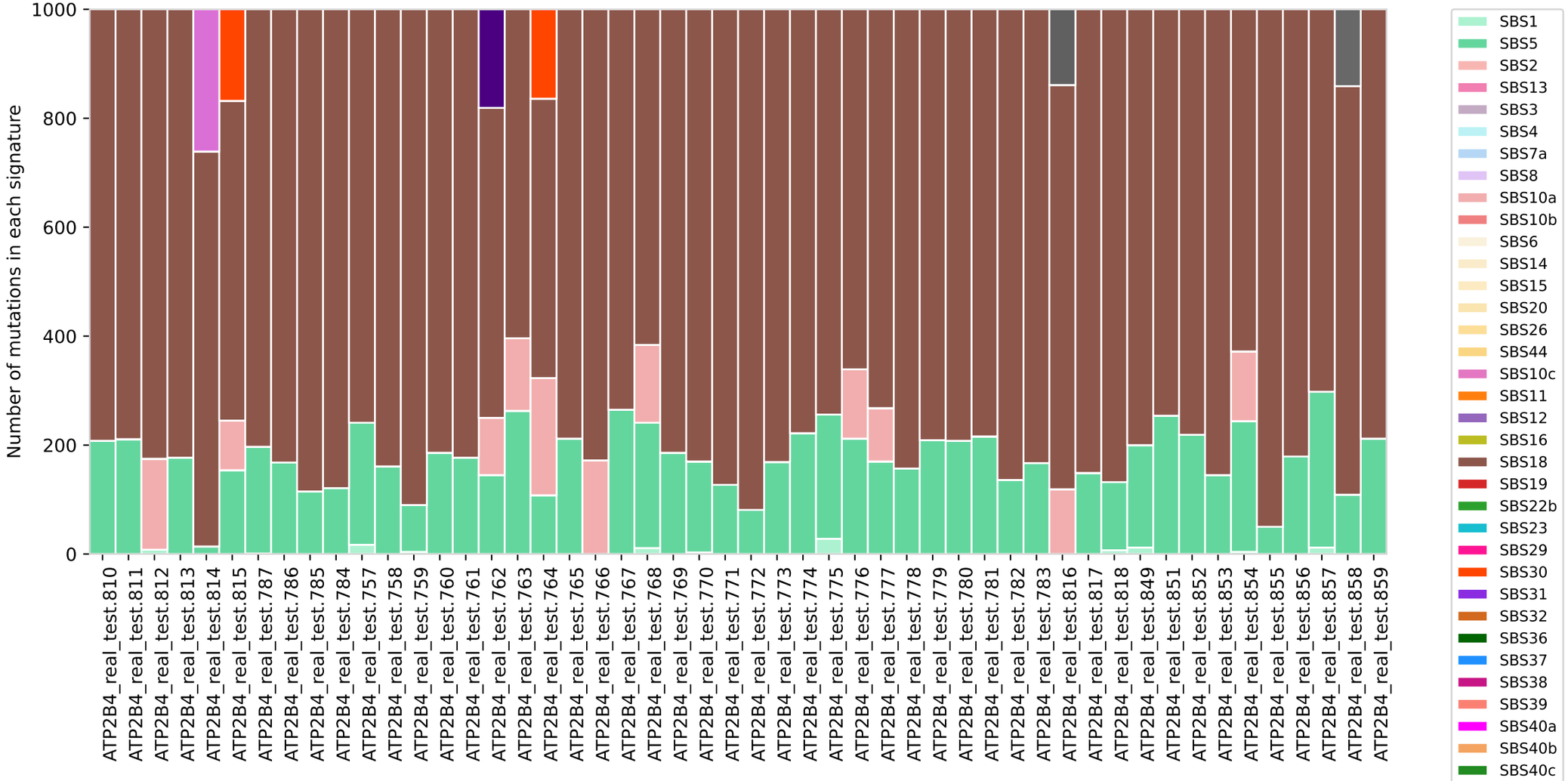
Number of mutations in each signature
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600
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200
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ATP2B4_real_test.786
ATP2B4_real_test.785
ATP2B4_real_test.784
ATP2B4_real_test.757
ATP2B4_real_test.758
ATP2B4_real_test.759
ATP2B4_real_test.760
ATP2B4_real_test.761
ATP2B4_real_test.762
ATP2B4_real_test.763
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ATP2B4_real_test.772
ATP2B4_real_test.773
ATP2B4_real_test.774
ATP2B4_real_test.775
ATP2B4_real_test.776
ATP2B4_real_test.777
ATP2B4_real_test.778
ATP2B4_real_test.779
ATP2B4_real_test.780
ATP2B4_real_test.781
ATP2B4_real_test.782
ATP2B4_real_test.783
ATP2B4_real_test.816
ATP2B4_real_test.817
ATP2B4_real_test.818
ATP2B4_real_test.849
ATP2B4_real_test.851
ATP2B4_real_test.852
ATP2B4_real_test.853
ATP2B4_real_test.854
ATP2B4_real_test.855
ATP2B4_real_test.856
ATP2B4_real_test.857
ATP2B4_real_test.858
ATP2B4_real_test.859
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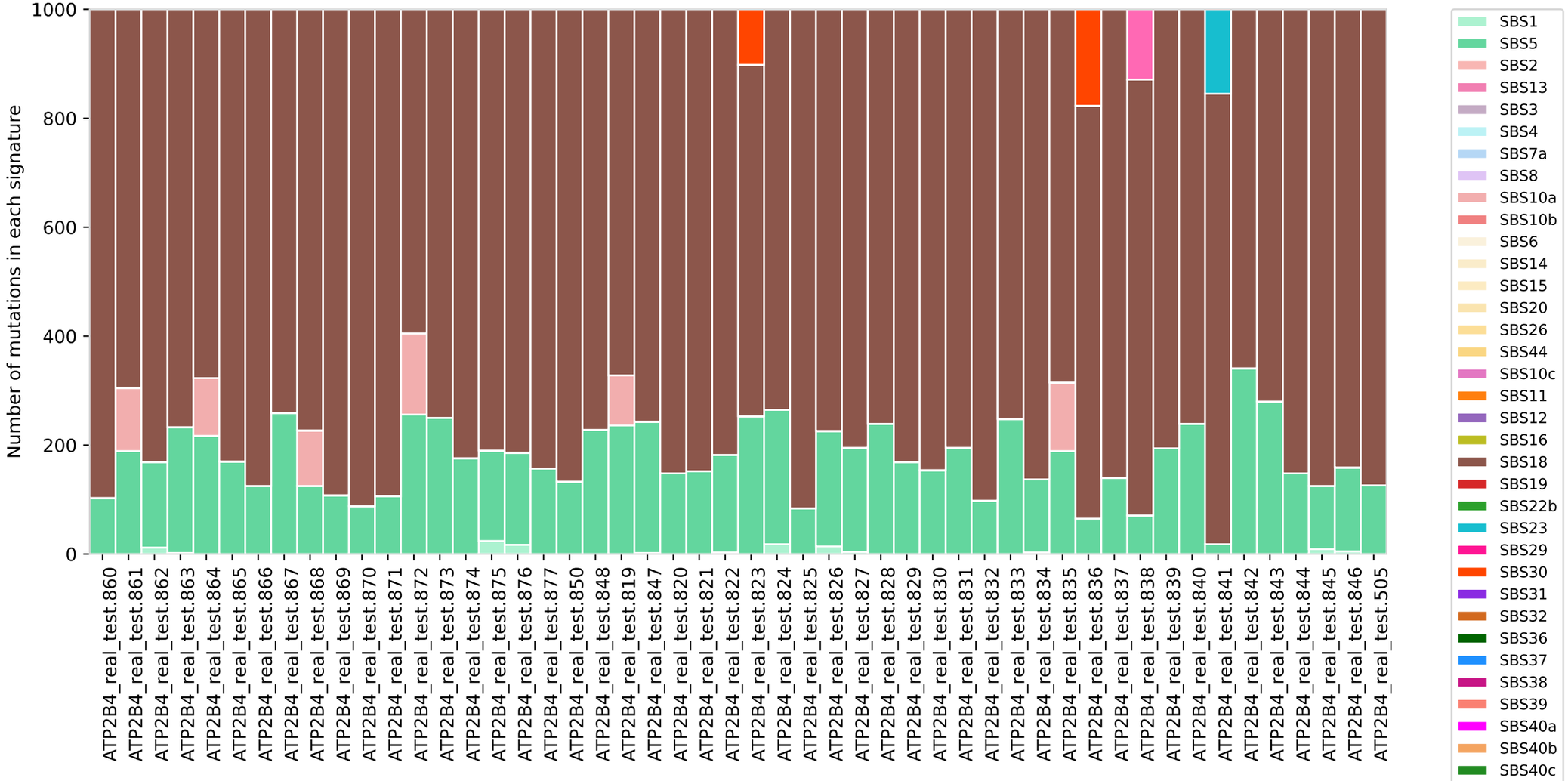
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ATP2B4_real_test.864
ATP2B4_real_test.865
ATP2B4_real_test.866
ATP2B4_real_test.867
ATP2B4_real_test.868
ATP2B4_real_test.869
ATP2B4_real_test.870
ATP2B4_real_test.871
ATP2B4_real_test.872
ATP2B4_real_test.873
ATP2B4_real_test.874
ATP2B4_real_test.875
ATP2B4_real_test.876
ATP2B4_real_test.877
ATP2B4_real_test.850
ATP2B4_real_test.848
ATP2B4_real_test.819
ATP2B4_real_test.847
ATP2B4_real_test.820
ATP2B4_real_test.821
ATP2B4_real_test.822
ATP2B4_real_test.823
ATP2B4_real_test.824
ATP2B4_real_test.825
ATP2B4_real_test.826
ATP2B4_real_test.827
ATP2B4_real_test.828
ATP2B4_real_test.829
ATP2B4_real_test.830
ATP2B4_real_test.831
ATP2B4_real_test.832
ATP2B4_real_test.833
ATP2B4_real_test.834
ATP2B4_real_test.835
ATP2B4_real_test.836
ATP2B4_real_test.837
ATP2B4_real_test.838
ATP2B4_real_test.839
ATP2B4_real_test.840
ATP2B4_real_test.841
ATP2B4_real_test.842
ATP2B4_real_test.843
ATP2B4_real_test.844
ATP2B4_real_test.845
ATP2B4_real_test.846
ATP2B4_real_test.505
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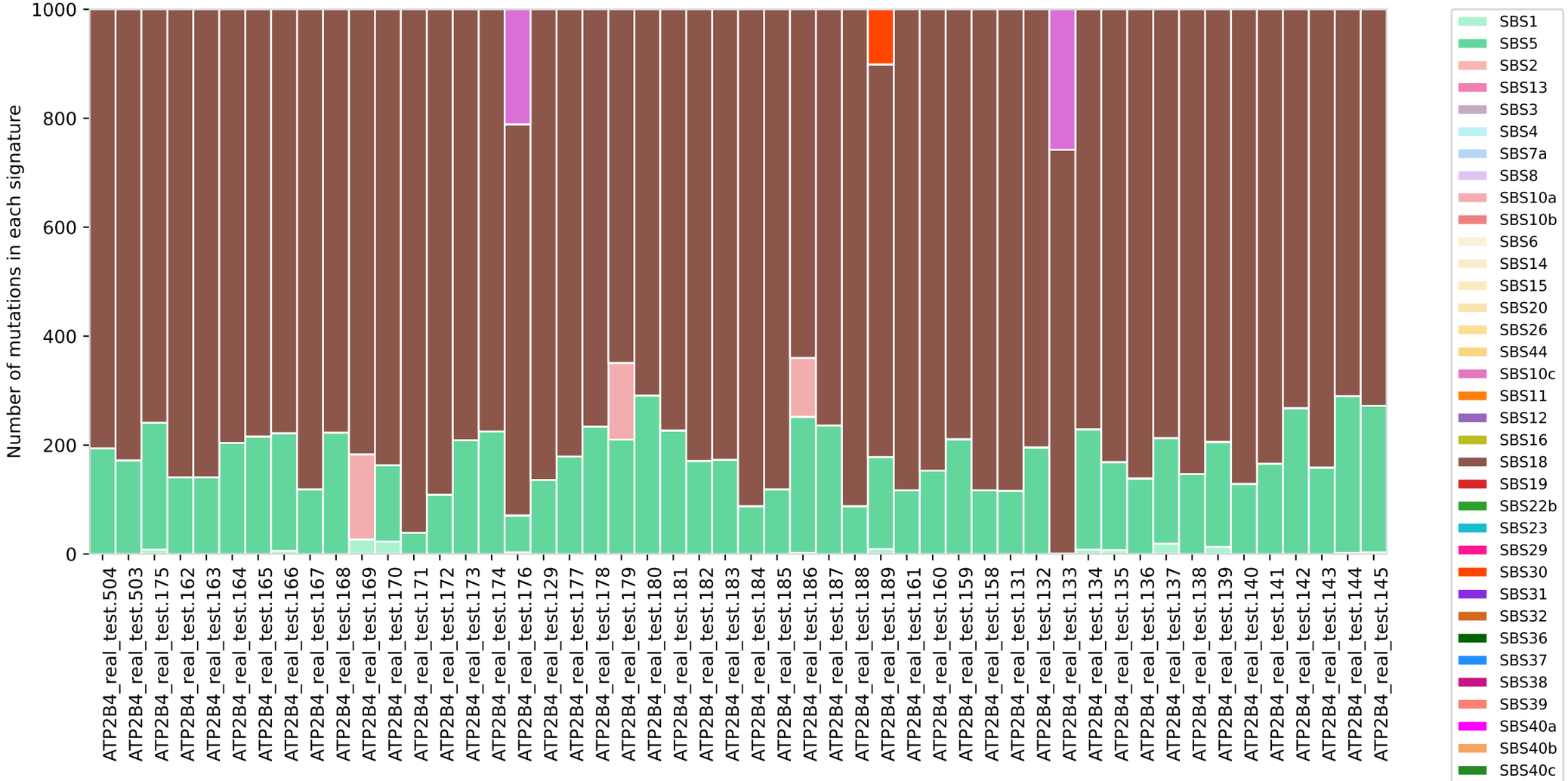
Number of mutations in each signature
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ATP2B4_real_test.175
ATP2B4_real_test.162
ATP2B4_real_test.163
ATP2B4_real_test.164
ATP2B4_real_test.165
ATP2B4_real_test.166
ATP2B4_real_test.167
ATP2B4_real_test.168
ATP2B4_real_test.169
ATP2B4_real_test.170
ATP2B4_real_test.171
ATP2B4_real_test.172
ATP2B4_real_test.173
ATP2B4_real_test.174
ATP2B4_real_test.176
ATP2B4_real_test.129
ATP2B4_real_test.177
ATP2B4_real_test.178
ATP2B4_real_test.179
ATP2B4_real_test.180
ATP2B4_real_test.181
ATP2B4_real_test.182
ATP2B4_real_test.183
ATP2B4_real_test.184
ATP2B4_real_test.185
ATP2B4_real_test.186
ATP2B4_real_test.187
ATP2B4_real_test.188
ATP2B4_real_test.189
ATP2B4_real_test.161
ATP2B4_real_test.160
ATP2B4_real_test.159
ATP2B4_real_test.158
ATP2B4_real_test.131
ATP2B4_real_test.132
ATP2B4_real_test.133
ATP2B4_real_test.134
ATP2B4_real_test.135
ATP2B4_real_test.136
ATP2B4_real_test.137
ATP2B4_real_test.138
ATP2B4_real_test.139
ATP2B4_real_test.140
ATP2B4_real_test.141
ATP2B4_real_test.142
ATP2B4_real_test.143
ATP2B4_real_test.144
ATP2B4_real_test.145
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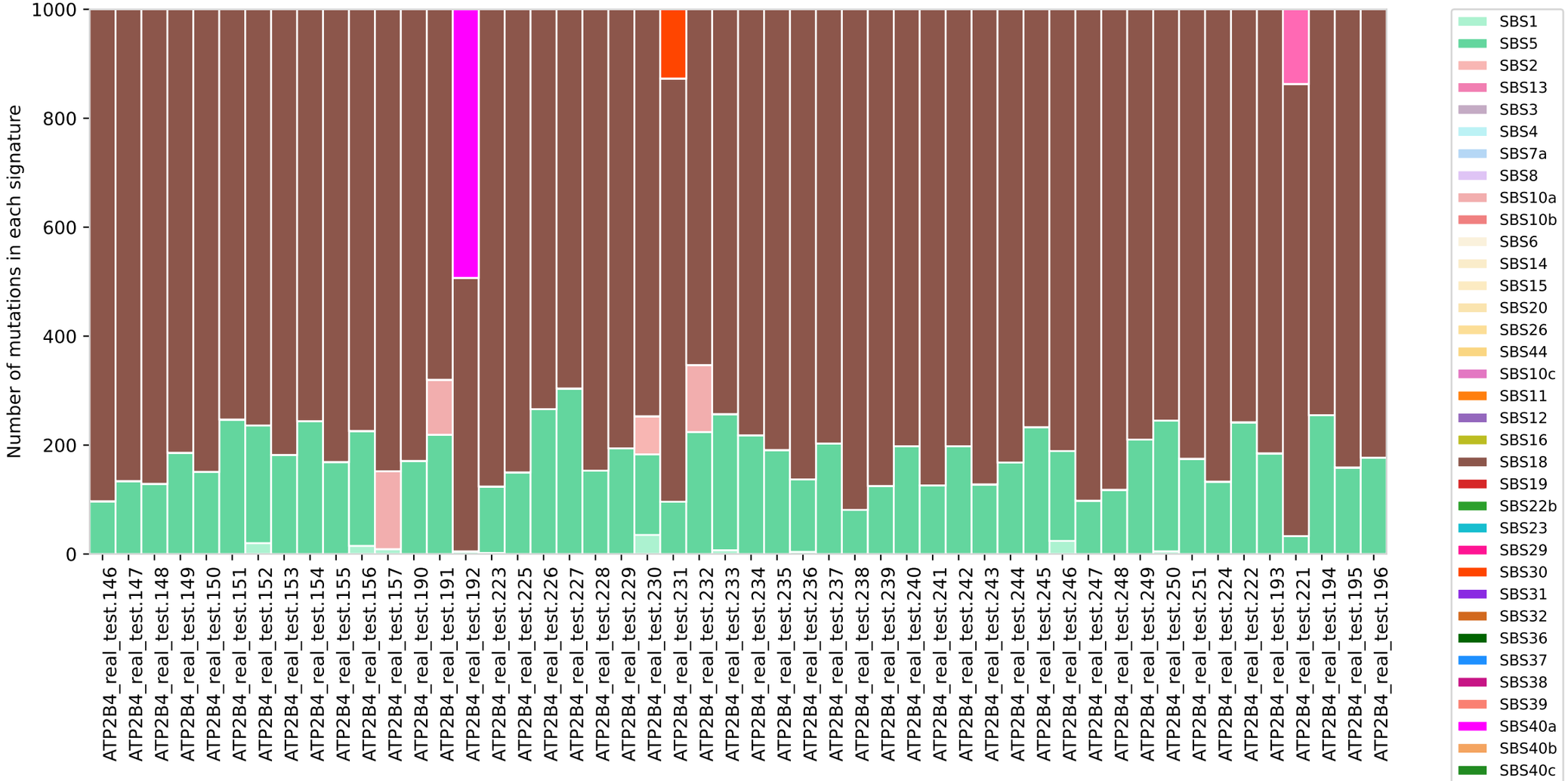
Number of mutations in each signature
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400
200
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ATP2B4_real_test.148
ATP2B4_real_test.149
ATP2B4_real_test.150
ATP2B4_real_test.151
ATP2B4_real_test.152
ATP2B4_real_test.153
ATP2B4_real_test.154
ATP2B4_real_test.155
ATP2B4_real_test.156
ATP2B4_real_test.157
ATP2B4_real_test.190
ATP2B4_real_test.191
ATP2B4_real_test.192
ATP2B4_real_test.223
ATP2B4_real_test.225
ATP2B4_real_test.226
ATP2B4_real_test.227
ATP2B4_real_test.228
ATP2B4_real_test.229
ATP2B4_real_test.230
ATP2B4_real_test.231
ATP2B4_real_test.232
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ATP2B4_real_test.238
ATP2B4_real_test.239
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ATP2B4_real_test.251
ATP2B4_real_test.224
ATP2B4_real_test.222
ATP2B4_real_test.193
ATP2B4_real_test.221
ATP2B4_real_test.194
ATP2B4_real_test.195
ATP2B4_real_test.196
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SBS4
SBS7a
SBS8
SBS10a
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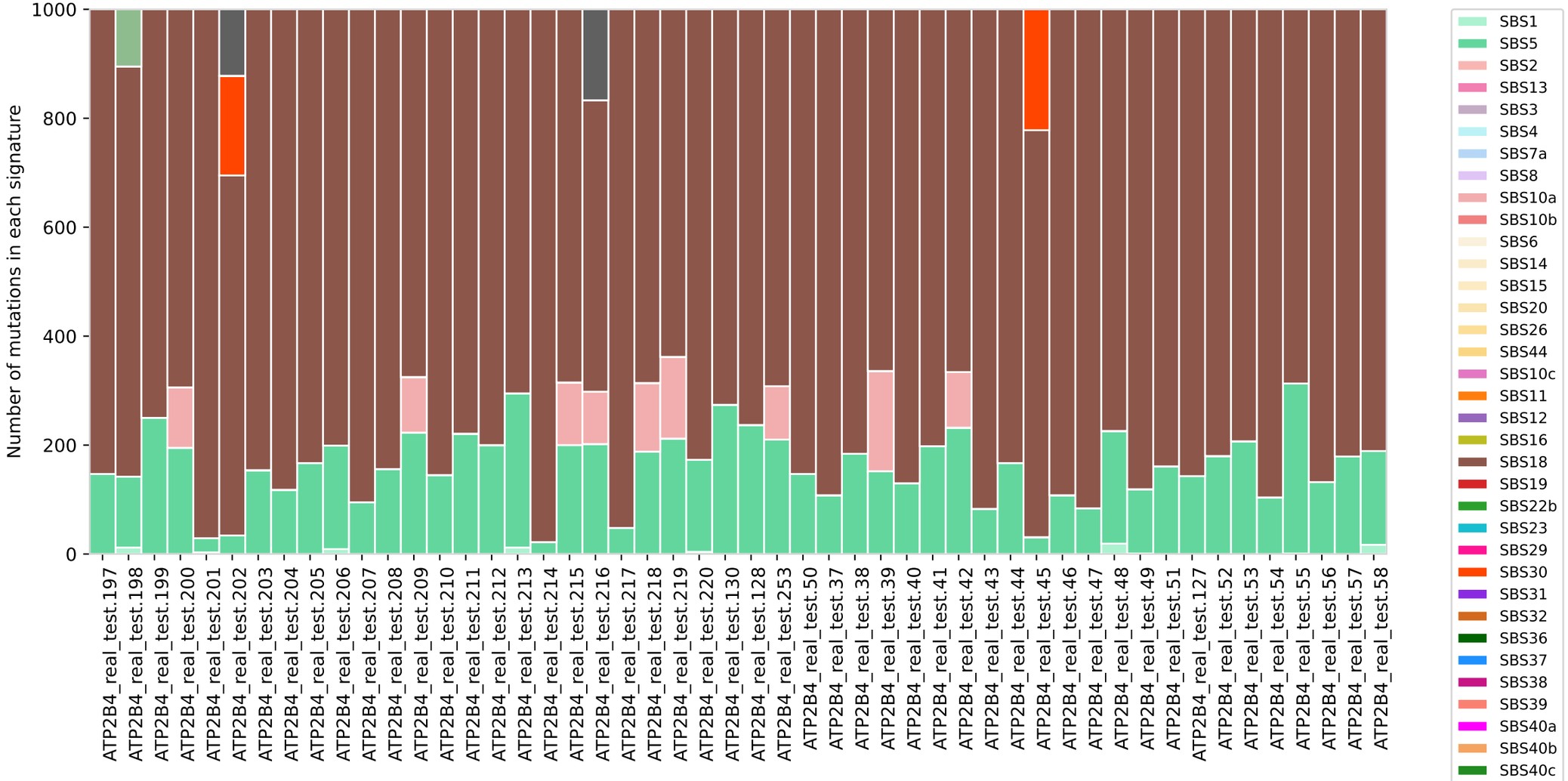
Number of mutations in each signature
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400
200
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ATP2B4_real_test.200
ATP2B4_real_test.201
ATP2B4_real_test.202
ATP2B4_real_test.203
ATP2B4_real_test.204
ATP2B4_real_test.205
ATP2B4_real_test.206
ATP2B4_real_test.207
ATP2B4_real_test.208
ATP2B4_real_test.209
ATP2B4_real_test.210
ATP2B4_real_test.211
ATP2B4_real_test.212
ATP2B4_real_test.213
ATP2B4_real_test.214
ATP2B4_real_test.215
ATP2B4_real_test.216
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ATP2B4_real_test.218
ATP2B4_real_test.219
ATP2B4_real_test.220
ATP2B4_real_test.130
ATP2B4_real_test.128
ATP2B4_real_test.253
ATP2B4_real_test.50
ATP2B4_real_test.37
ATP2B4_real_test.38
ATP2B4_real_test.39
ATP2B4_real_test.40
ATP2B4_real_test.41
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ATP2B4_real_test.44
ATP2B4_real_test.45
ATP2B4_real_test.46
ATP2B4_real_test.47
ATP2B4_real_test.48
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ATP2B4_real_test.51
ATP2B4_real_test.127
ATP2B4_real_test.52
ATP2B4_real_test.53
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ATP2B4_real_test.55
ATP2B4_real_test.56
ATP2B4_real_test.57
ATP2B4_real_test.58
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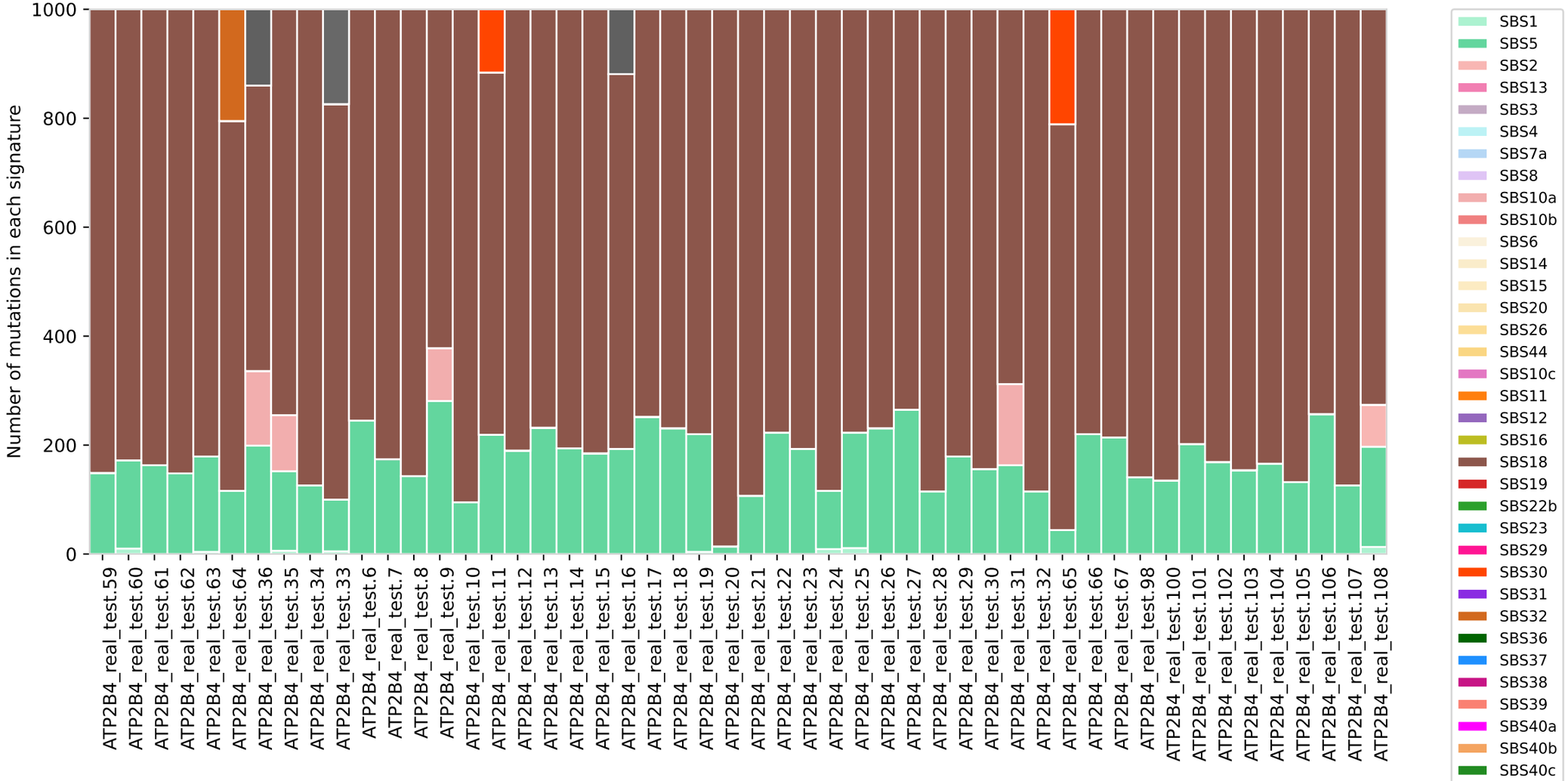
Number of mutations in each signature
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ATP2B4_real_test.61
ATP2B4_real_test.62
ATP2B4_real_test.63
ATP2B4_real_test.64
ATP2B4_real_test.36
ATP2B4_real_test.35
ATP2B4_real_test.34
ATP2B4_real_test.33
ATP2B4_real_test.6
ATP2B4_real_test.7
ATP2B4_real_test.8
ATP2B4_real_test.9
ATP2B4_real_test.10
ATP2B4_real_test.11
ATP2B4_real_test.12
ATP2B4_real_test.13
ATP2B4_real_test.14
ATP2B4_real_test.15
ATP2B4_real_test.16
ATP2B4_real_test.17
ATP2B4_real_test.18
ATP2B4_real_test.19
ATP2B4_real_test.20
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ATP2B4_real_test.23
ATP2B4_real_test.24
ATP2B4_real_test.25
ATP2B4_real_test.26
ATP2B4_real_test.27
ATP2B4_real_test.28
ATP2B4_real_test.29
ATP2B4_real_test.30
ATP2B4_real_test.31
ATP2B4_real_test.32
ATP2B4_real_test.65
ATP2B4_real_test.66
ATP2B4_real_test.67
ATP2B4_real_test.98
ATP2B4_real_test.100
ATP2B4_real_test.101
ATP2B4_real_test.102
ATP2B4_real_test.103
ATP2B4_real_test.104
ATP2B4_real_test.105
ATP2B4_real_test.106
ATP2B4_real_test.107
ATP2B4_real_test.108
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SBS5
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SBS4
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SBS8
SBS10a
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SBS44
SBS10c
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SBS22b
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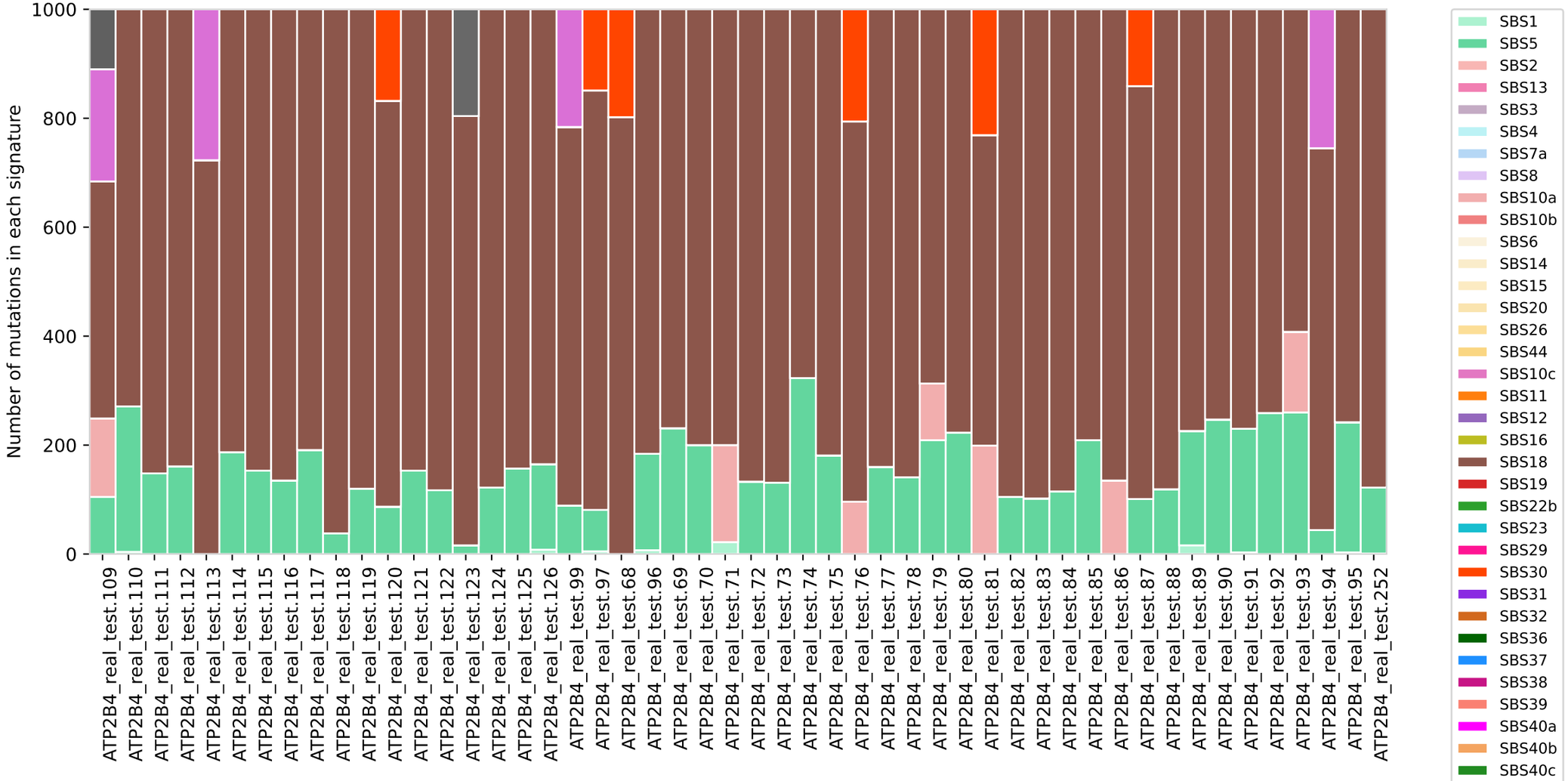
Number of mutations in each signature
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ATP2B4_real_test.115
ATP2B4_real_test.116
ATP2B4_real_test.117
ATP2B4_real_test.118
ATP2B4_real_test.119
ATP2B4_real_test.120
ATP2B4_real_test.121
ATP2B4_real_test.122
ATP2B4_real_test.123
ATP2B4_real_test.124
ATP2B4_real_test.125
ATP2B4_real_test.126
ATP2B4_real_test.99
ATP2B4_real_test.97
ATP2B4_real_test.68
ATP2B4_real_test.96
ATP2B4_real_test.69
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ATP2B4_real_test.81
ATP2B4_real_test.82
ATP2B4_real_test.83
ATP2B4_real_test.84
ATP2B4_real_test.85
ATP2B4_real_test.86
ATP2B4_real_test.87
ATP2B4_real_test.88
ATP2B4_real_test.89
ATP2B4_real_test.90
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ATP2B4_real_test.93
ATP2B4_real_test.94
ATP2B4_real_test.95
ATP2B4_real_test.252
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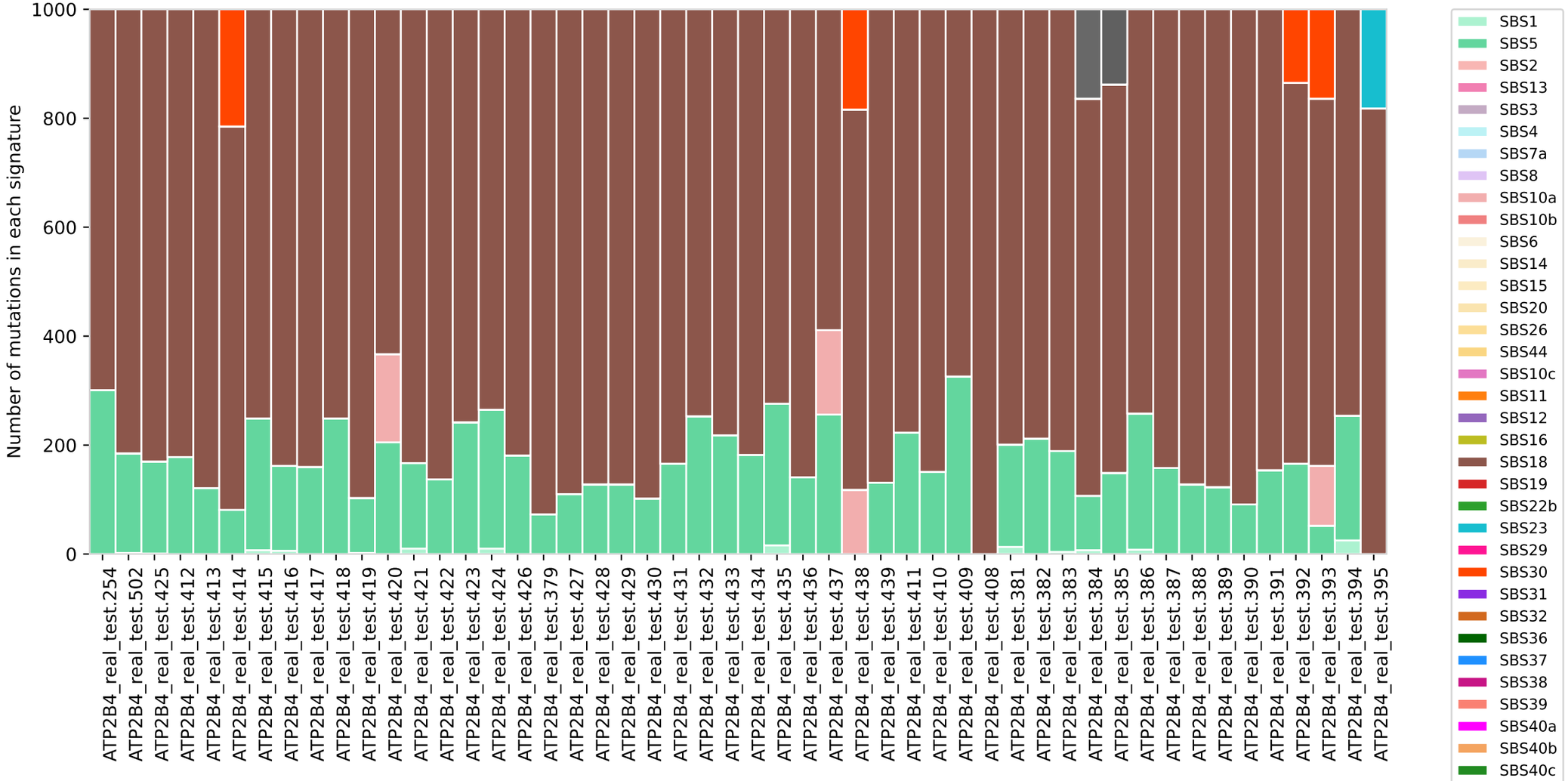
SBS40c


Number of mutations in each signature
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600
400
200
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ATP2B4_real_test.416
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ATP2B4_real_test.422
ATP2B4_real_test.423
ATP2B4_real_test.424
ATP2B4_real_test.426
ATP2B4_real_test.379
ATP2B4_real_test.427
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ATP2B4_real_test.429
ATP2B4_real_test.430
ATP2B4_real_test.431
ATP2B4_real_test.432
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ATP2B4_real_test.381
ATP2B4_real_test.382
ATP2B4_real_test.383
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SBS4
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SBS10b
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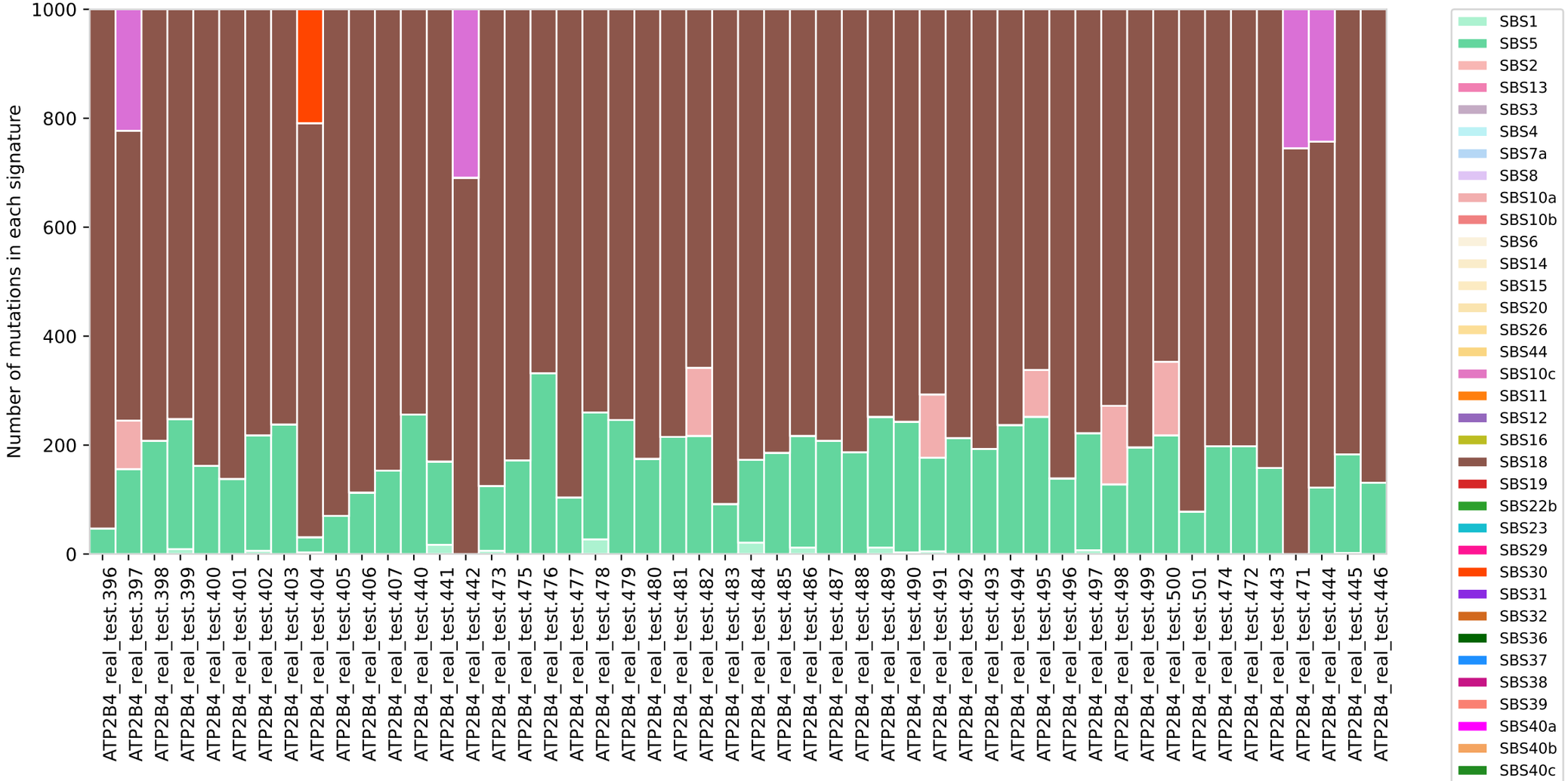
Number of mutations in each signature
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ATP2B4_real_test.402
ATP2B4_real_test.403
ATP2B4_real_test.404
ATP2B4_real_test.405
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ATP2B4_real_test.407
ATP2B4_real_test.440
ATP2B4_real_test.441
ATP2B4_real_test.442
ATP2B4_real_test.473
ATP2B4_real_test.475
ATP2B4_real_test.476
ATP2B4_real_test.477
ATP2B4_real_test.478
ATP2B4_real_test.479
ATP2B4_real_test.480
ATP2B4_real_test.481
ATP2B4_real_test.482
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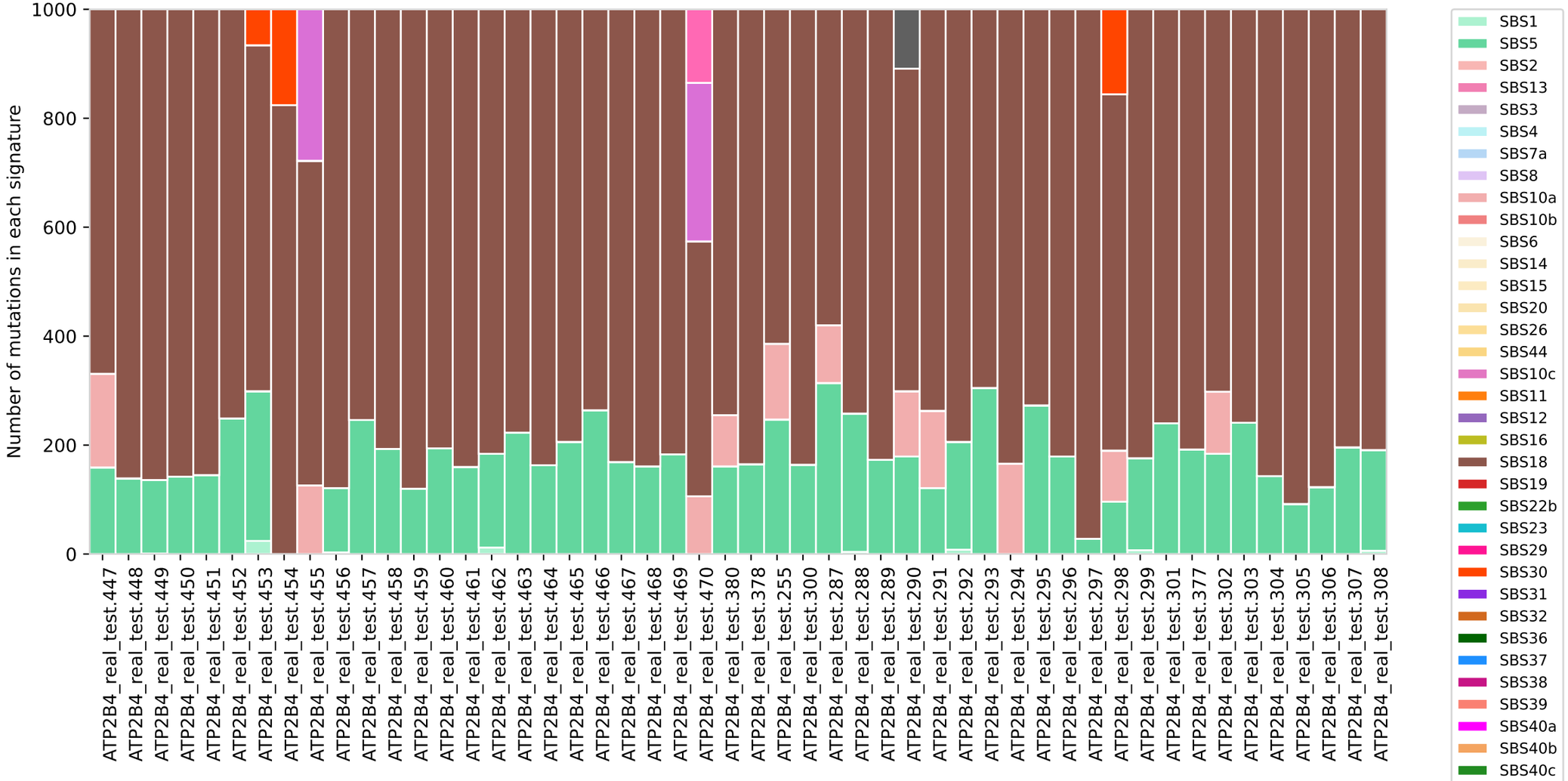
SBS40b
SBS40c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ATP2B4_real_test.452
ATP2B4_real_test.453
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ATP2B4_real_test.455
ATP2B4_real_test.456
ATP2B4_real_test.457
ATP2B4_real_test.458
ATP2B4_real_test.459
ATP2B4_real_test.460
ATP2B4_real_test.461
ATP2B4_real_test.462
ATP2B4_real_test.463
ATP2B4_real_test.464
ATP2B4_real_test.465
ATP2B4_real_test.466
ATP2B4_real_test.467
ATP2B4_real_test.468
ATP2B4_real_test.469
ATP2B4_real_test.470
ATP2B4_real_test.380
ATP2B4_real_test.378
ATP2B4_real_test.255
ATP2B4_real_test.300
ATP2B4_real_test.287
ATP2B4_real_test.288
ATP2B4_real_test.289
ATP2B4_real_test.290
ATP2B4_real_test.291
ATP2B4_real_test.292
ATP2B4_real_test.293
ATP2B4_real_test.294
ATP2B4_real_test.295
ATP2B4_real_test.296
ATP2B4_real_test.297
ATP2B4_real_test.298
ATP2B4_real_test.299
ATP2B4_real_test.301
ATP2B4_real_test.377
ATP2B4_real_test.302
ATP2B4_real_test.303
ATP2B4_real_test.304
ATP2B4_real_test.305
ATP2B4_real_test.306
ATP2B4_real_test.307
ATP2B4_real_test.308
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SBS8
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SBS26
SBS44
SBS10c
SBS11
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SBS16
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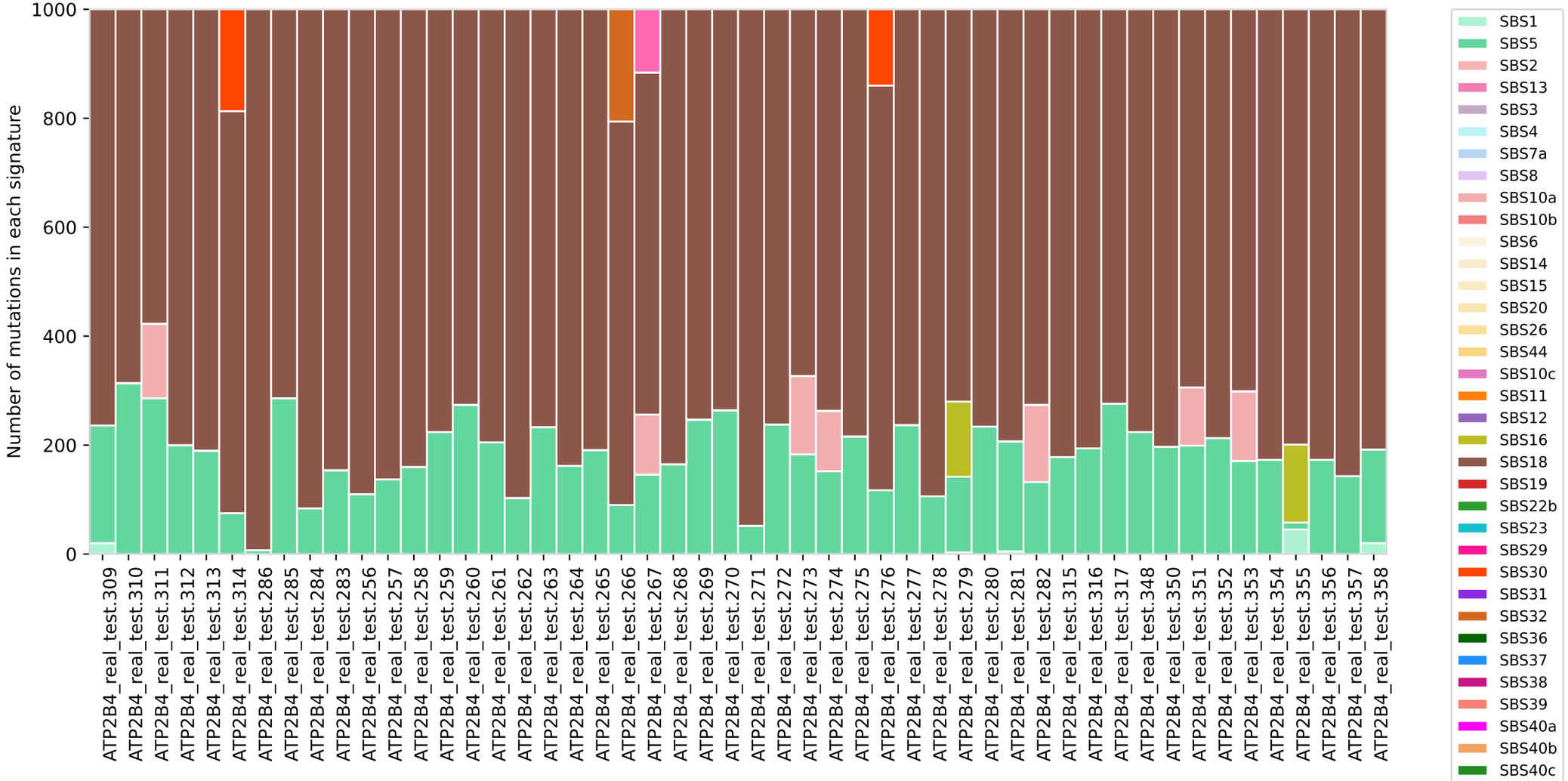
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ATP2B4_real_test.285
ATP2B4_real_test.284
ATP2B4_real_test.283
ATP2B4_real_test.256
ATP2B4_real_test.257
ATP2B4_real_test.258
ATP2B4_real_test.259
ATP2B4_real_test.260
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ATP2B4_real_test.262
ATP2B4_real_test.263
ATP2B4_real_test.264
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ATP2B4_real_test.268
ATP2B4_real_test.269
ATP2B4_real_test.270
ATP2B4_real_test.271
ATP2B4_real_test.272
ATP2B4_real_test.273
ATP2B4_real_test.274
ATP2B4_real_test.275
ATP2B4_real_test.276
ATP2B4_real_test.277
ATP2B4_real_test.278
ATP2B4_real_test.279
ATP2B4_real_test.280
ATP2B4_real_test.281
ATP2B4_real_test.282
ATP2B4_real_test.315
ATP2B4_real_test.316
ATP2B4_real_test.317
ATP2B4_real_test.348
ATP2B4_real_test.350
ATP2B4_real_test.351
ATP2B4_real_test.352
ATP2B4_real_test.353
ATP2B4_real_test.354
ATP2B4_real_test.355
ATP2B4_real_test.356
ATP2B4_real_test.357
ATP2B4_real_test.358
SBS1
SBS5
SBS2
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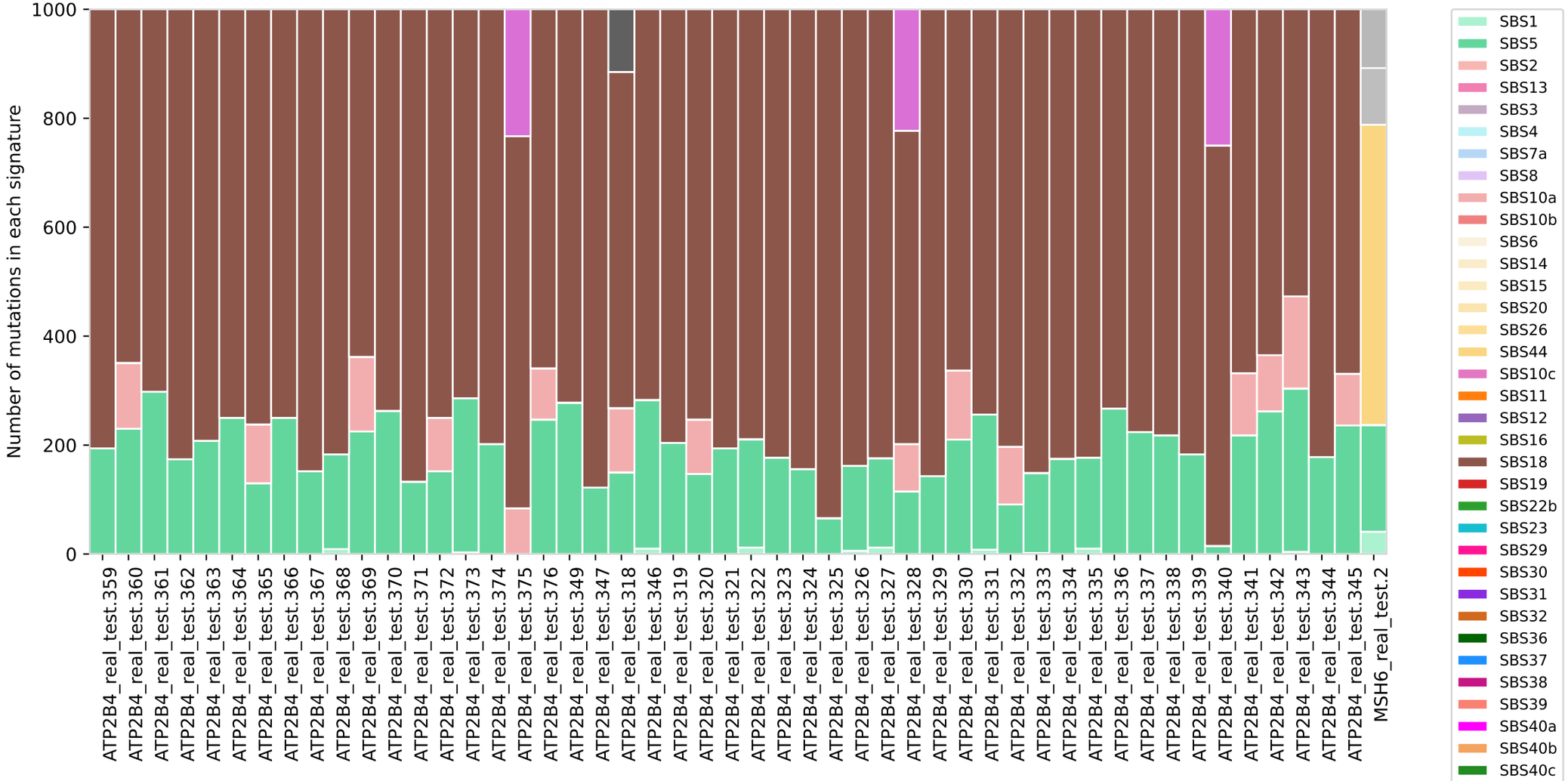
Number of mutations in each signature
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ATP2B4_real_test.363
ATP2B4_real_test.364
ATP2B4_real_test.365
ATP2B4_real_test.366
ATP2B4_real_test.367
ATP2B4_real_test.368
ATP2B4_real_test.369
ATP2B4_real_test.370
ATP2B4_real_test.371
ATP2B4_real_test.372
ATP2B4_real_test.373
ATP2B4_real_test.374
ATP2B4_real_test.375
ATP2B4_real_test.376
ATP2B4_real_test.349
ATP2B4_real_test.347
ATP2B4_real_test.318
ATP2B4_real_test.346
ATP2B4_real_test.319
ATP2B4_real_test.320
ATP2B4_real_test.321
ATP2B4_real_test.322
ATP2B4_real_test.323
ATP2B4_real_test.324
ATP2B4_real_test.325
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ATP2B4_real_test.327
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ATP2B4_real_test.344
ATP2B4_real_test.345
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SBS2
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SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
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SBS15
SBS20
SBS26
SBS44
SBS10c
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SBS12
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SBS19
SBS22b
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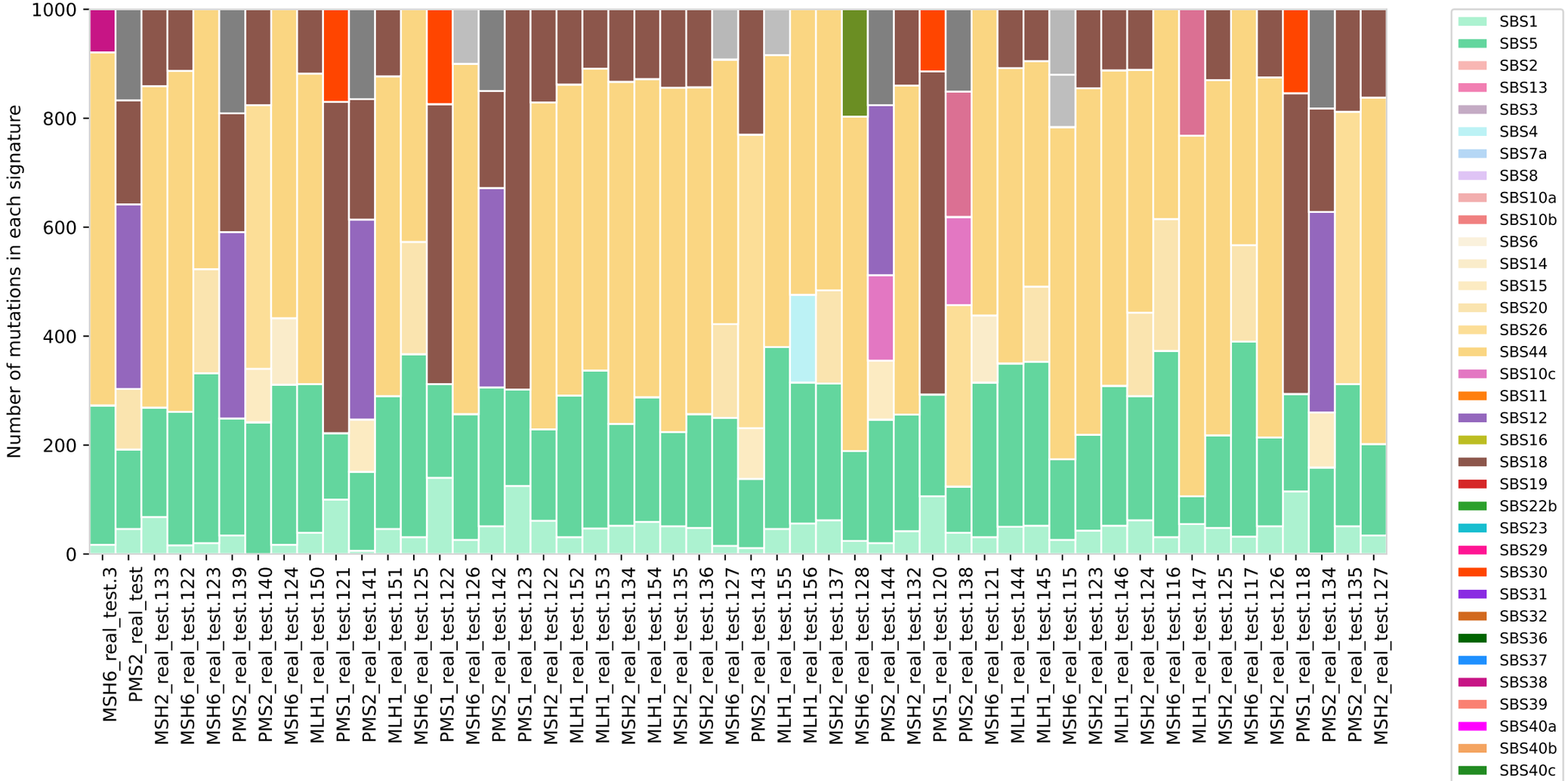
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MSH6_real_test.123
PMS2_real_test.139
PMS2_real_test.140
MSH6_real_test.124
MLH1_real_test.150
PMS1_real_test.121
PMS2_real_test.141
MLH1_real_test.151
MSH6_real_test.125
PMS1_real_test.122
MSH6_real_test.126
PMS2_real_test.142
PMS1_real_test.123
MSH2_real_test.122
MLH1_real_test.152
MLH1_real_test.153
MSH2_real_test.134
MLH1_real_test.154
MSH2_real_test.135
MSH2_real_test.136
MSH6_real_test.127
PMS2_real_test.143
MLH1_real_test.155
MLH1_real_test.156
MSH2_real_test.137
MSH6_real_test.128
PMS2_real_test.144
MSH2_real_test.132
PMS1_real_test.120
PMS2_real_test.138
MSH6_real_test.121
MLH1_real_test.144
MLH1_real_test.145
MSH6_real_test.115
MSH2_real_test.123
MLH1_real_test.146
MSH2_real_test.124
MSH6_real_test.116
MLH1_real_test.147
MSH2_real_test.125
MSH6_real_test.117
MSH2_real_test.126
PMS1_real_test.118
PMS2_real_test.134
PMS2_real_test.135
MSH2_real_test.127
SBS1
SBS5
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SBS4
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SBS8
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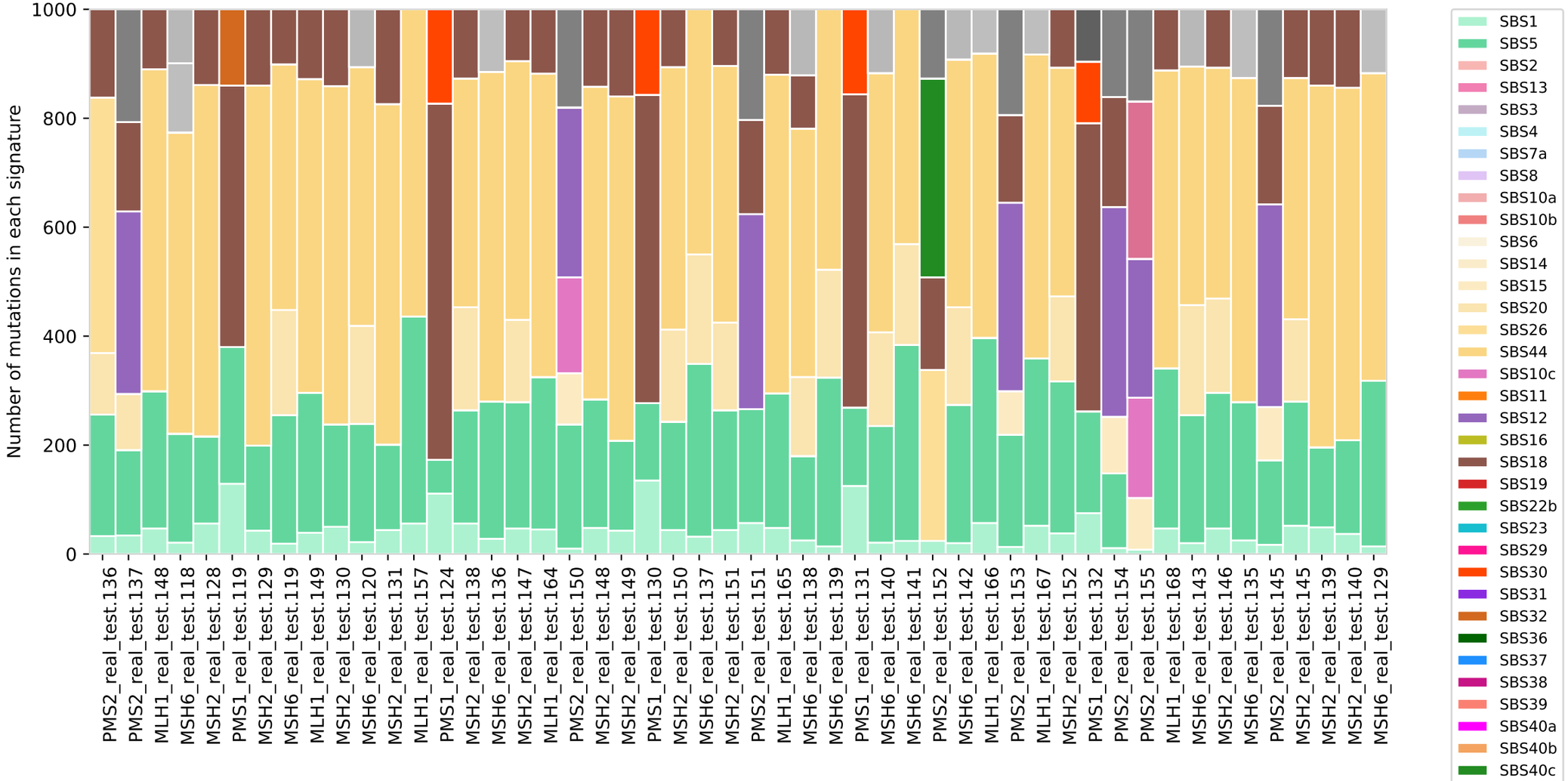
SBS40c


Number of mutations in each signature
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MSH6_real_test.118
MSH2_real_test.128
PMS1_real_test.119
MSH2_real_test.129
MSH6_real_test.119
MLH1_real_test.149
MSH2_real_test.130
MSH6_real_test.120
MSH2_real_test.131
MLH1_real_test.157
PMS1_real_test.124
MSH2_real_test.138
MSH6_real_test.136
MSH2_real_test.147
MLH1_real_test.164
PMS2_real_test.150
MSH2_real_test.148
MSH2_real_test.149
PMS1_real_test.130
MSH2_real_test.150
MSH6_real_test.137
MSH2_real_test.151
PMS2_real_test.151
MLH1_real_test.165
MSH6_real_test.138
MSH6_real_test.139
PMS1_real_test.131
MSH6_real_test.140
MSH6_real_test.141
PMS2_real_test.152
MSH6_real_test.142
MLH1_real_test.166
PMS2_real_test.153
MLH1_real_test.167
MSH2_real_test.152
PMS1_real_test.132
PMS2_real_test.154
PMS2_real_test.155
MLH1_real_test.168
MSH6_real_test.143
MSH2_real_test.146
MSH6_real_test.135
PMS2_real_test.145
MSH2_real_test.145
MSH2_real_test.139
MSH2_real_test.140
MSH6_real_test.129
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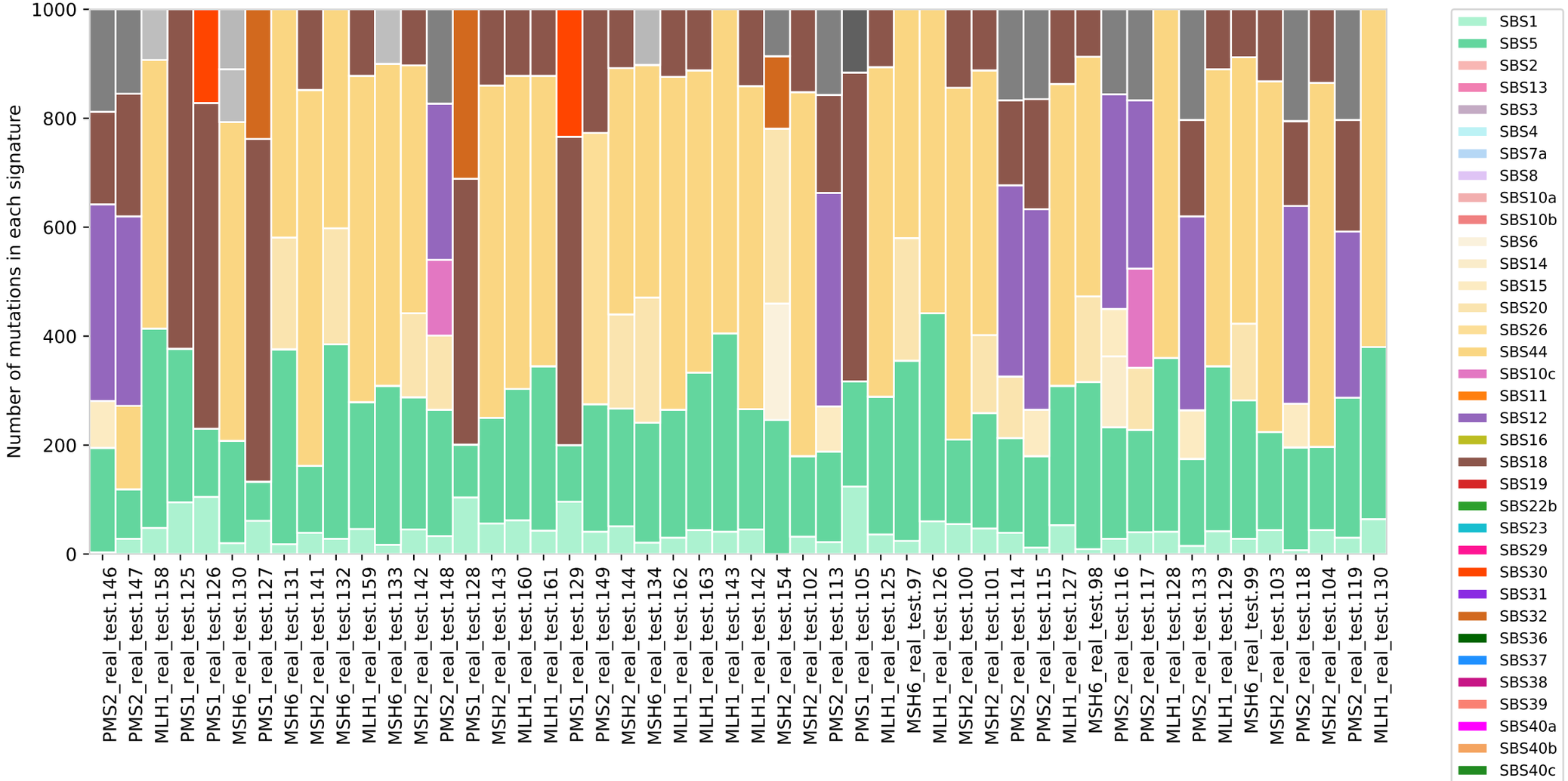
Number of mutations in each signature
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PMS1_real_test.126
MSH6_real_test.130
PMS1_real_test.127
MSH6_real_test.131
MSH2_real_test.141
MSH6_real_test.132
MLH1_real_test.159
MSH6_real_test.133
MSH2_real_test.142
PMS2_real_test.148
PMS1_real_test.128
MSH2_real_test.143
MLH1_real_test.160
MLH1_real_test.161
PMS1_real_test.129
PMS2_real_test.149
MSH2_real_test.144
MSH6_real_test.134
MLH1_real_test.162
MLH1_real_test.163
MLH1_real_test.143
MLH1_real_test.142
MSH2_real_test.154
MSH2_real_test.102
PMS2_real_test.113
PMS1_real_test.105
MLH1_real_test.125
MSH6_real_test.97
MLH1_real_test.126
MSH2_real_test.100
MSH2_real_test.101
PMS2_real_test.114
PMS2_real_test.115
MLH1_real_test.127
MSH6_real_test.98
PMS2_real_test.116
PMS2_real_test.117
MLH1_real_test.128
PMS2_real_test.133
MLH1_real_test.129
MSH6_real_test.99
MSH2_real_test.103
PMS2_real_test.118
MSH2_real_test.104
PMS2_real_test.119
MLH1_real_test.130
SBS1
SBS5
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SBS8
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SBS10b
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SBS10c
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SBS12
SBS16
SBS18
SBS19
SBS22b
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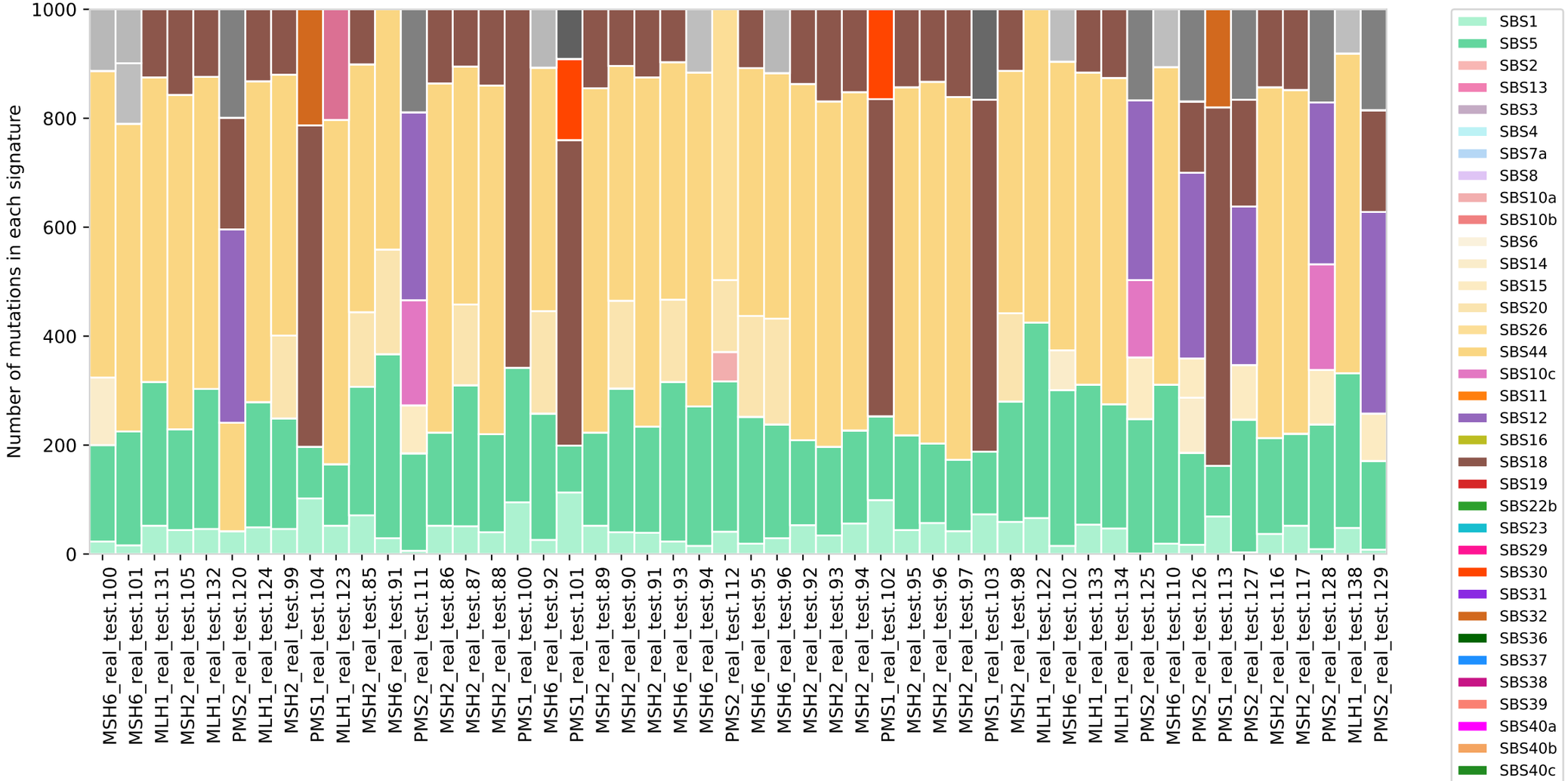
SBS40c


Number of mutations in each signature
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MLH1_real_test.132
PMS2_real_test.120
MLH1_real_test.124
MSH2_real_test.99
PMS1_real_test.104
MLH1_real_test.123
MSH2_real_test.85
MSH6_real_test.91
PMS2_real_test.111
MSH2_real_test.86
MSH2_real_test.87
MSH2_real_test.88
PMS1_real_test.100
MSH6_real_test.92
PMS1_real_test.101
MSH2_real_test.89
MSH2_real_test.90
MSH2_real_test.91
MSH6_real_test.93
MSH6_real_test.94
PMS2_real_test.112
MSH6_real_test.95
MSH6_real_test.96
MSH2_real_test.92
MSH2_real_test.93
MSH2_real_test.94
PMS1_real_test.102
MSH2_real_test.95
MSH2_real_test.96
MSH2_real_test.97
PMS1_real_test.103
MSH2_real_test.98
MLH1_real_test.122
MSH6_real_test.102
MLH1_real_test.133
MLH1_real_test.134
PMS2_real_test.125
MSH6_real_test.110
PMS2_real_test.126
PMS1_real_test.113
PMS2_real_test.127
MSH2_real_test.116
MSH2_real_test.117
PMS2_real_test.128
MLH1_real_test.138
PMS2_real_test.129
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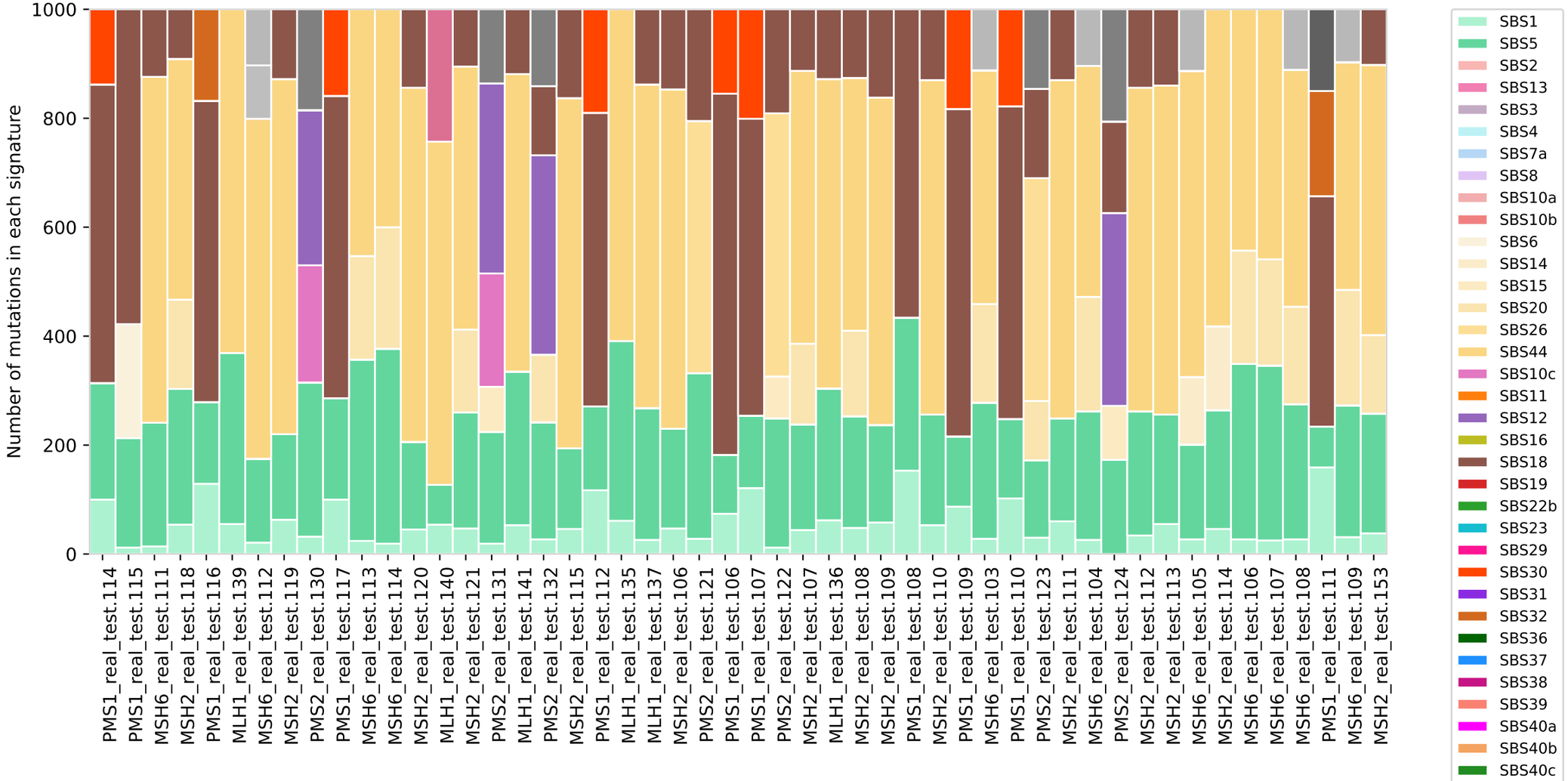
Number of mutations in each signature
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MSH2_real_test.118
PMS1_real_test.116
MLH1_real_test.139
MSH6_real_test.112
MSH2_real_test.119
PMS2_real_test.130
PMS1_real_test.117
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MSH2_real_test.120
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MSH2_real_test.121
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PMS2_real_test.132
MSH2_real_test.115
PMS1_real_test.112
MLH1_real_test.135
MLH1_real_test.137
MSH2_real_test.106
PMS2_real_test.121
PMS1_real_test.106
PMS1_real_test.107
PMS2_real_test.122
MSH2_real_test.107
MLH1_real_test.136
MSH2_real_test.108
MSH2_real_test.109
PMS1_real_test.108
MSH2_real_test.110
PMS1_real_test.109
MSH6_real_test.103
PMS1_real_test.110
PMS2_real_test.123
MSH2_real_test.111
MSH6_real_test.104
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MSH2_real_test.112
MSH2_real_test.113
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MSH2_real_test.114
MSH6_real_test.106
MSH6_real_test.107
MSH6_real_test.108
PMS1_real_test.111
MSH6_real_test.109
MSH2_real_test.153
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SBS8
SBS10a
SBS10b
SBS6
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SBS44
SBS10c
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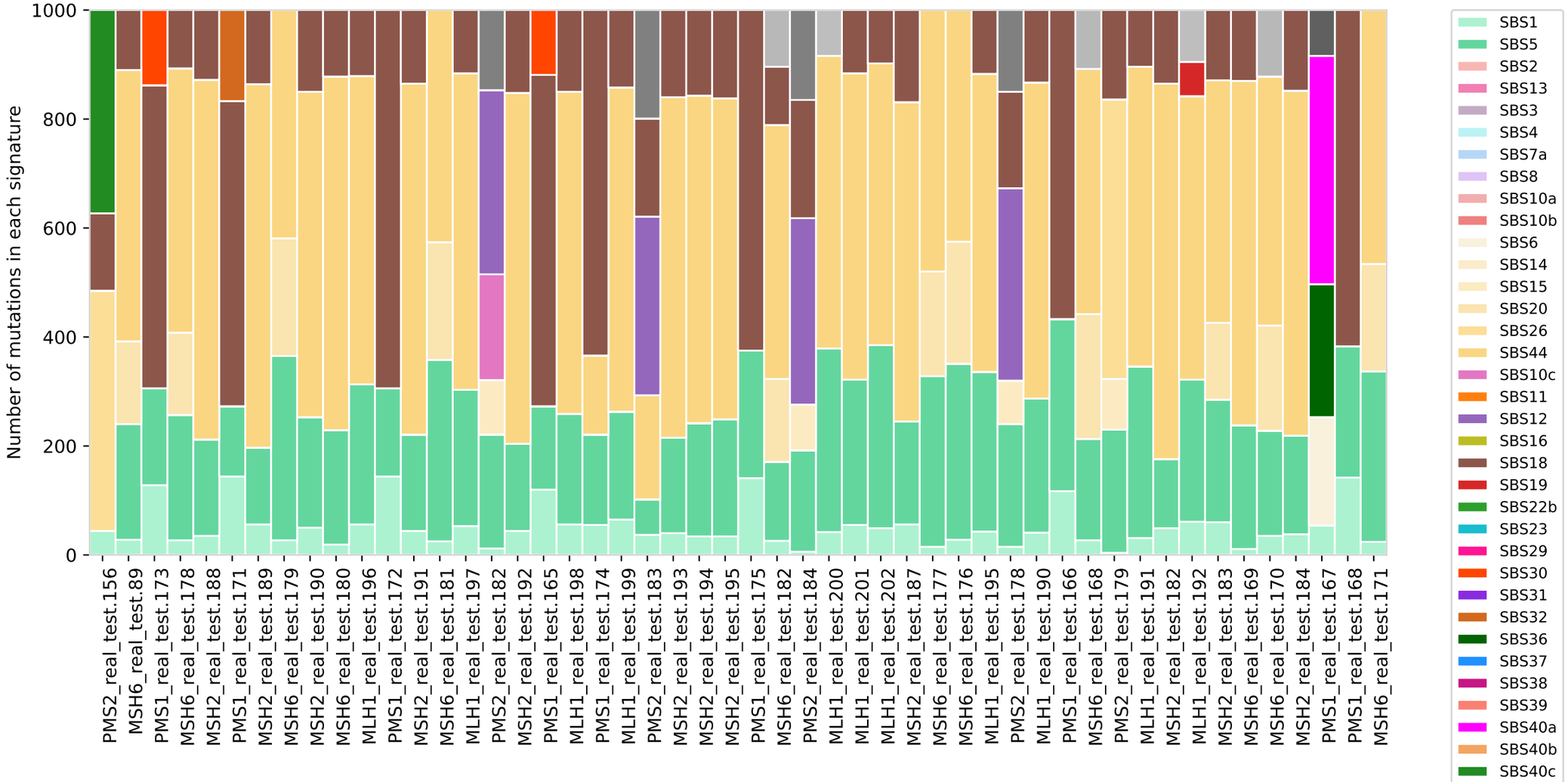
SBS40c


Number of mutations in each signature
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MSH6_real_test.179
MSH2_real_test.190
MSH6_real_test.180
MLH1_real_test.196
PMS1_real_test.172
MSH2_real_test.191
MSH6_real_test.181
MLH1_real_test.197
PMS2_real_test.182
MSH2_real_test.192
PMS1_real_test.165
MLH1_real_test.198
PMS1_real_test.174
MLH1_real_test.199
PMS2_real_test.183
MSH2_real_test.193
MSH2_real_test.194
MSH2_real_test.195
PMS1_real_test.175
MSH6_real_test.182
PMS2_real_test.184
MLH1_real_test.200
MLH1_real_test.201
MLH1_real_test.202
MSH2_real_test.187
MSH6_real_test.177
MSH6_real_test.176
MLH1_real_test.195
PMS2_real_test.178
MLH1_real_test.190
PMS1_real_test.166
MSH6_real_test.168
PMS2_real_test.179
MLH1_real_test.191
MSH2_real_test.182
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MSH6_real_test.169
MSH6_real_test.170
MSH2_real_test.184
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PMS1_real_test.168
MSH6_real_test.171
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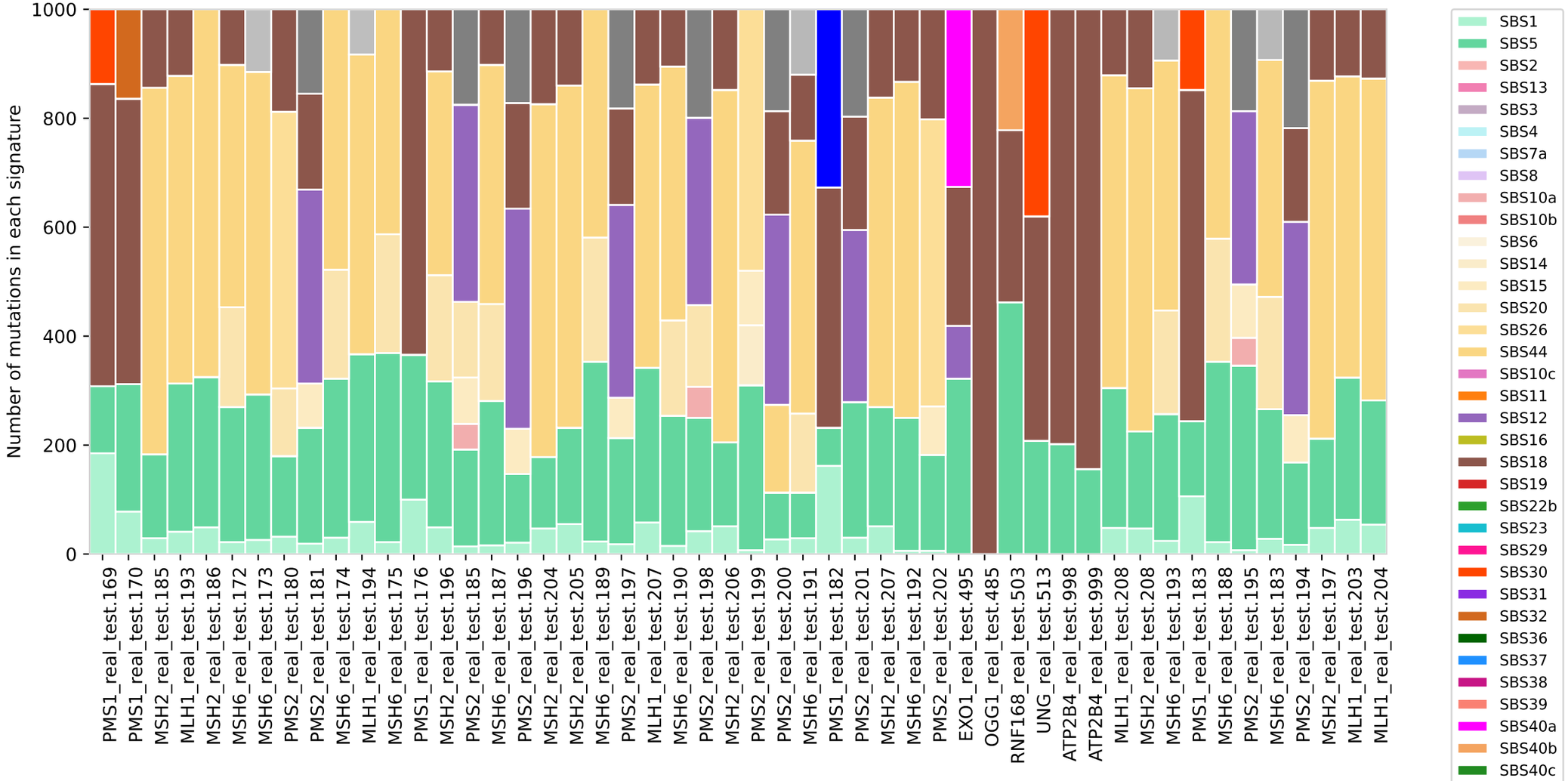
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MSH6_real_test.173
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MSH6_real_test.174
MLH1_real_test.194
MSH6_real_test.175
PMS1_real_test.176
MSH2_real_test.196
PMS2_real_test.185
MSH6_real_test.187
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MSH2_real_test.204
MSH2_real_test.205
MSH6_real_test.189
PMS2_real_test.197
MLH1_real_test.207
MSH6_real_test.190
PMS2_real_test.198
MSH2_real_test.206
PMS2_real_test.199
PMS2_real_test.200
MSH6_real_test.191
PMS1_real_test.182
PMS2_real_test.201
MSH2_real_test.207
MSH6_real_test.192
PMS2_real_test.202
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OGG1_real_test.485
RNF168_real_test.503
UNG_real_test.513
ATP2B4_real_test.998
ATP2B4_real_test.999
MLH1_real_test.208
MSH2_real_test.208
MSH6_real_test.193
PMS1_real_test.183
MSH6_real_test.188
PMS2_real_test.195
MSH6_real_test.183
PMS2_real_test.194
MSH2_real_test.197
MLH1_real_test.203
MLH1_real_test.204
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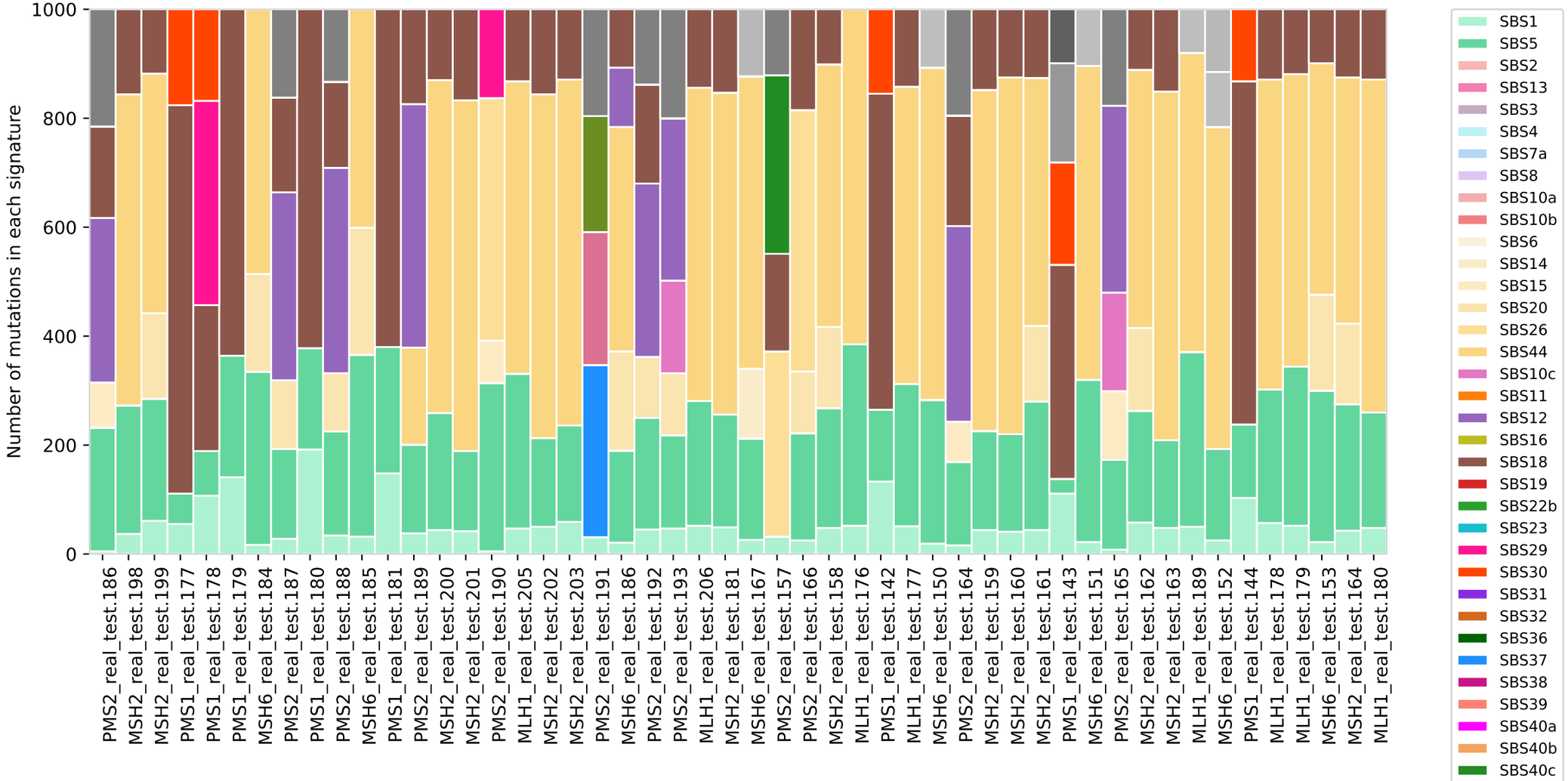
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MSH2_real_test.201
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MLH1_real_test.205
MSH2_real_test.202
MSH2_real_test.203
PMS2_real_test.191
MSH6_real_test.186
PMS2_real_test.192
PMS2_real_test.193
MLH1_real_test.206
MSH2_real_test.181
MSH6_real_test.167
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MSH2_real_test.158
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MSH6_real_test.151
PMS2_real_test.165
MSH2_real_test.162
MSH2_real_test.163
MLH1_real_test.189
MSH6_real_test.152
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MLH1_real_test.179
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MSH2_real_test.164
MLH1_real_test.180
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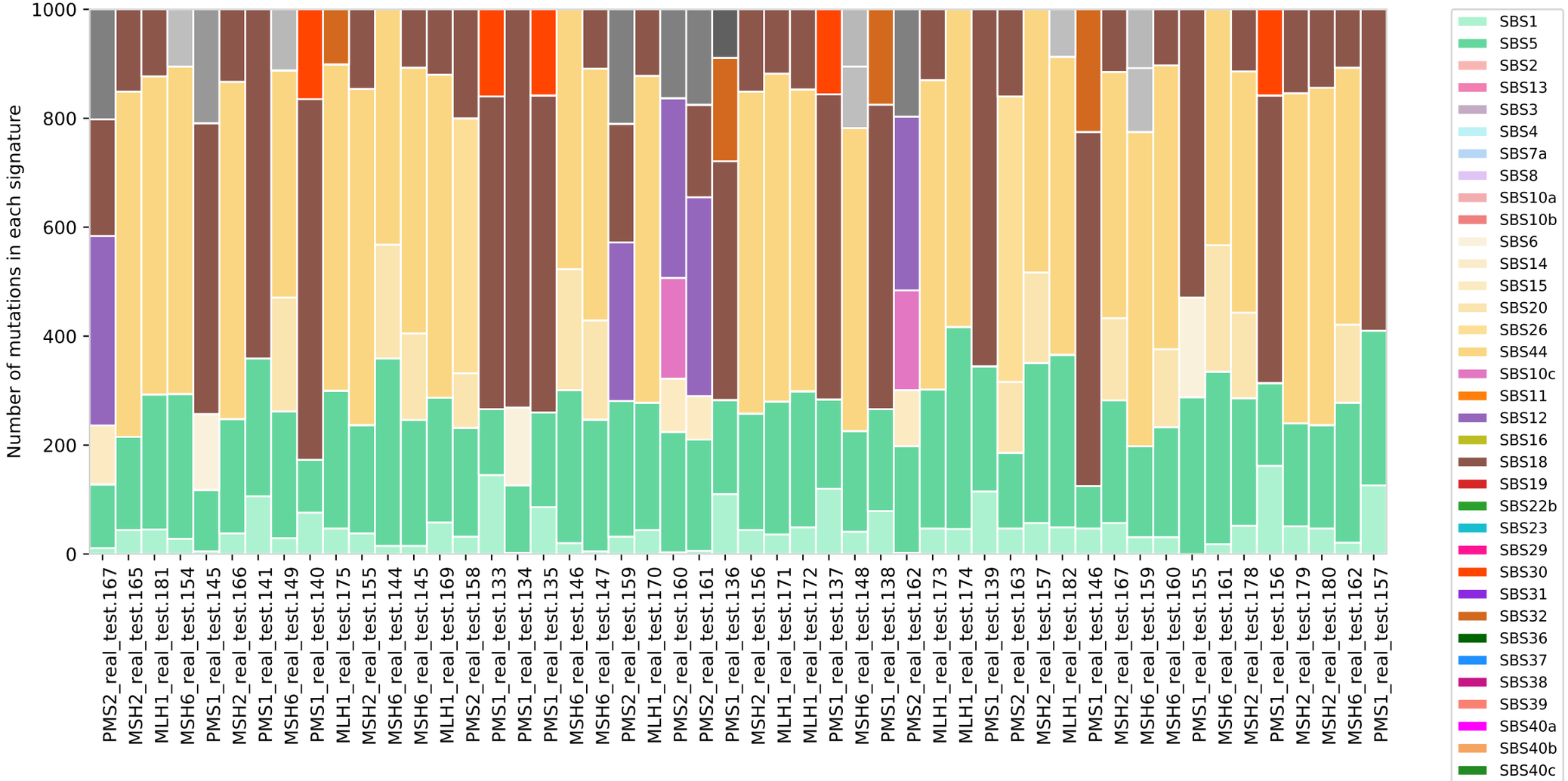
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PMS1_real_test.141
MSH6_real_test.149
PMS1_real_test.140
MLH1_real_test.175
MSH2_real_test.155
MSH6_real_test.144
MSH6_real_test.145
MLH1_real_test.169
PMS2_real_test.158
PMS1_real_test.133
PMS1_real_test.134
PMS1_real_test.135
MSH6_real_test.146
MSH6_real_test.147
PMS2_real_test.159
MLH1_real_test.170
PMS2_real_test.160
PMS2_real_test.161
PMS1_real_test.136
MSH2_real_test.156
MLH1_real_test.171
MLH1_real_test.172
PMS1_real_test.137
MSH6_real_test.148
PMS1_real_test.138
PMS2_real_test.162
MLH1_real_test.173
MLH1_real_test.174
PMS1_real_test.139
PMS2_real_test.163
MSH2_real_test.157
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MSH2_real_test.178
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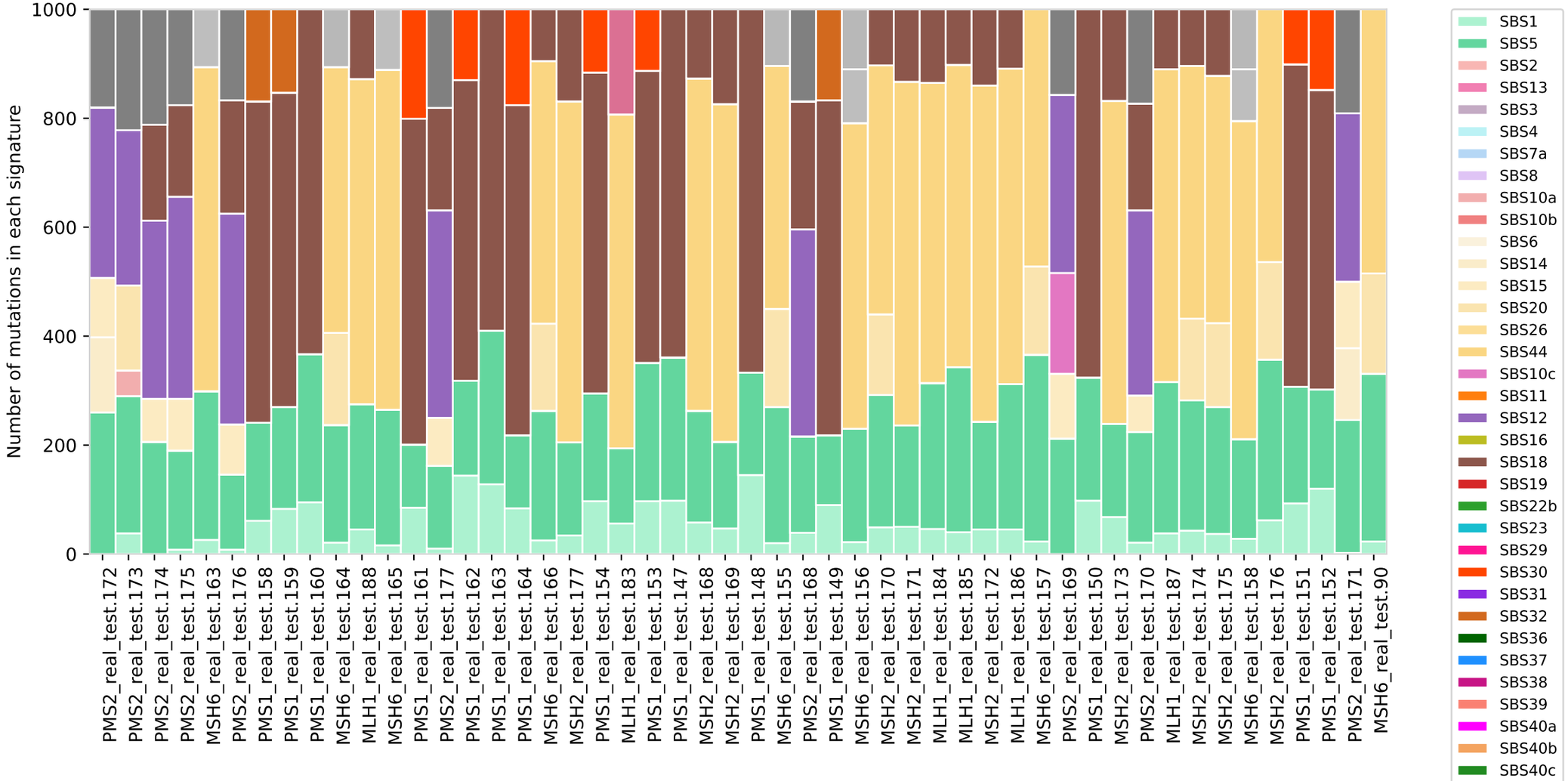
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MSH6_real_test.166
MSH2_real_test.177
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MLH1_real_test.183
PMS1_real_test.153
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MSH2_real_test.168
MSH2_real_test.169
PMS1_real_test.148
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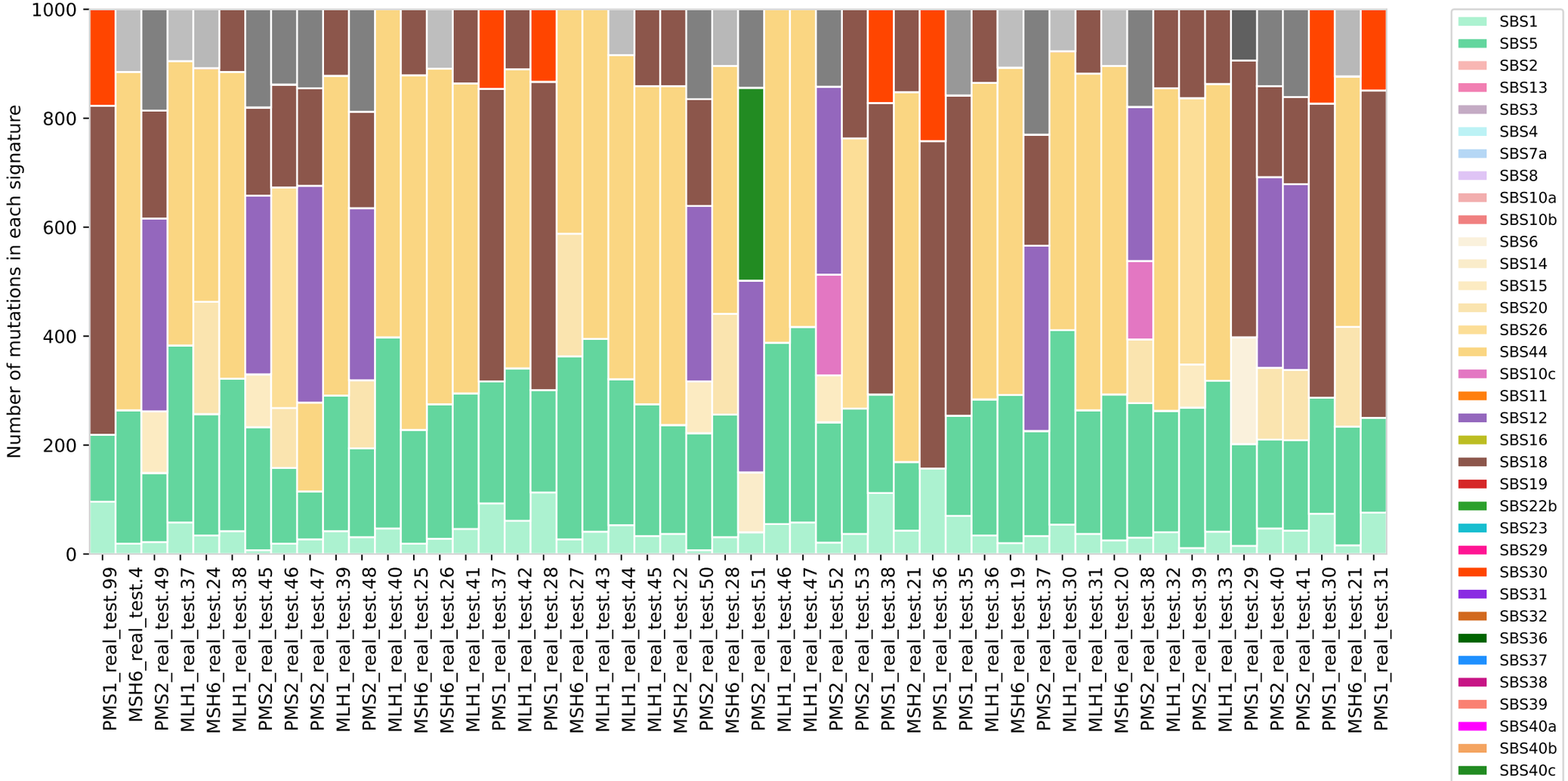
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PMS2_real_test.45
PMS2_real_test.46
PMS2_real_test.47
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MSH6_real_test.25
MSH6_real_test.26
MLH1_real_test.41
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MLH1_real_test.42
PMS1_real_test.28
MSH6_real_test.27
MLH1_real_test.43
MLH1_real_test.44
MLH1_real_test.45
MSH2_real_test.22
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MSH6_real_test.28
PMS2_real_test.51
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MLH1_real_test.47
PMS2_real_test.52
PMS2_real_test.53
PMS1_real_test.38
MSH2_real_test.21
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MLH1_real_test.36
MSH6_real_test.19
PMS2_real_test.37
MLH1_real_test.30
MLH1_real_test.31
MSH6_real_test.20
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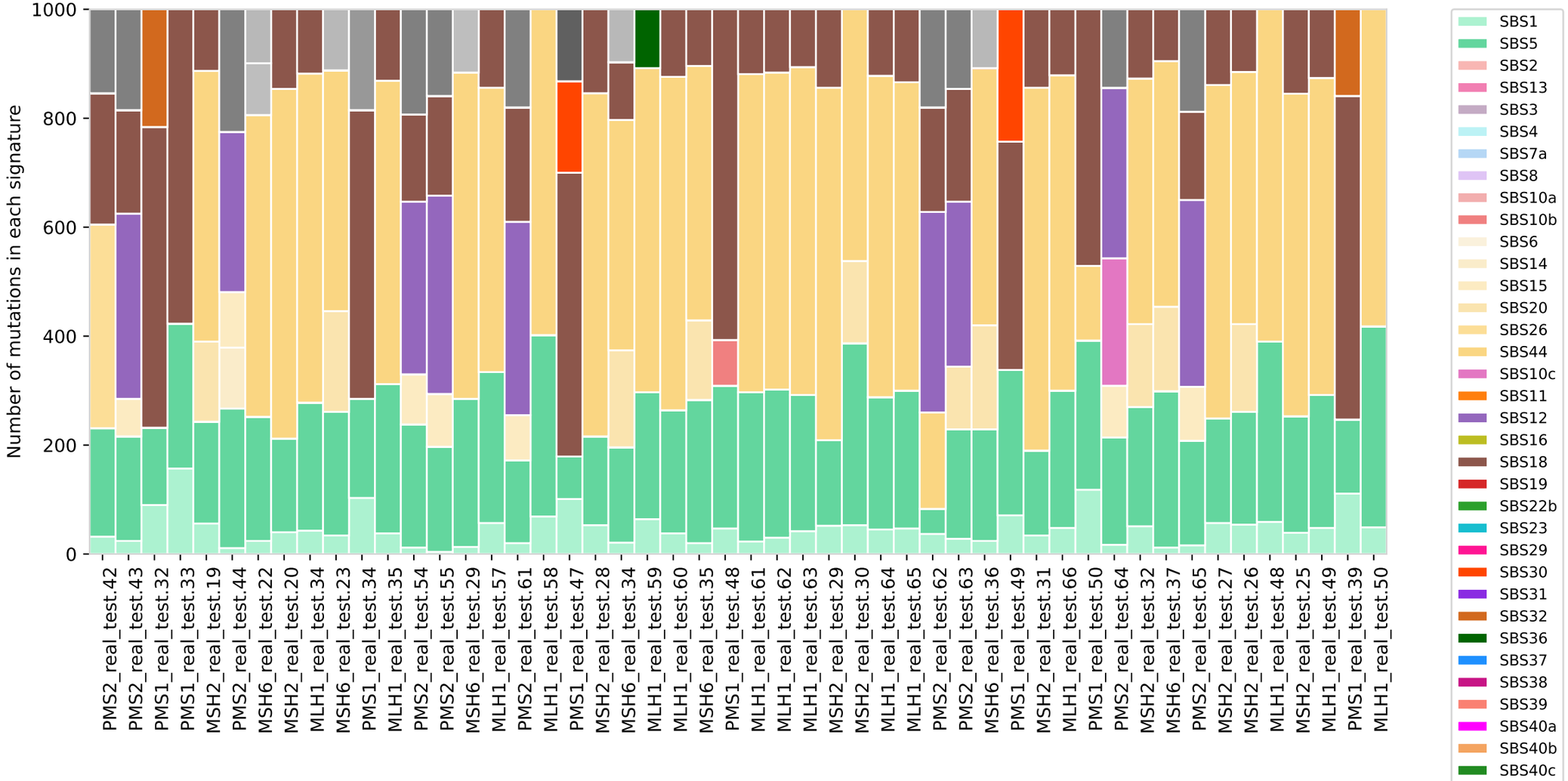
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MSH6_real_test.35
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MLH1_real_test.63
MSH2_real_test.29
MSH2_real_test.30
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MLH1_real_test.65
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PMS2_real_test.63
MSH6_real_test.36
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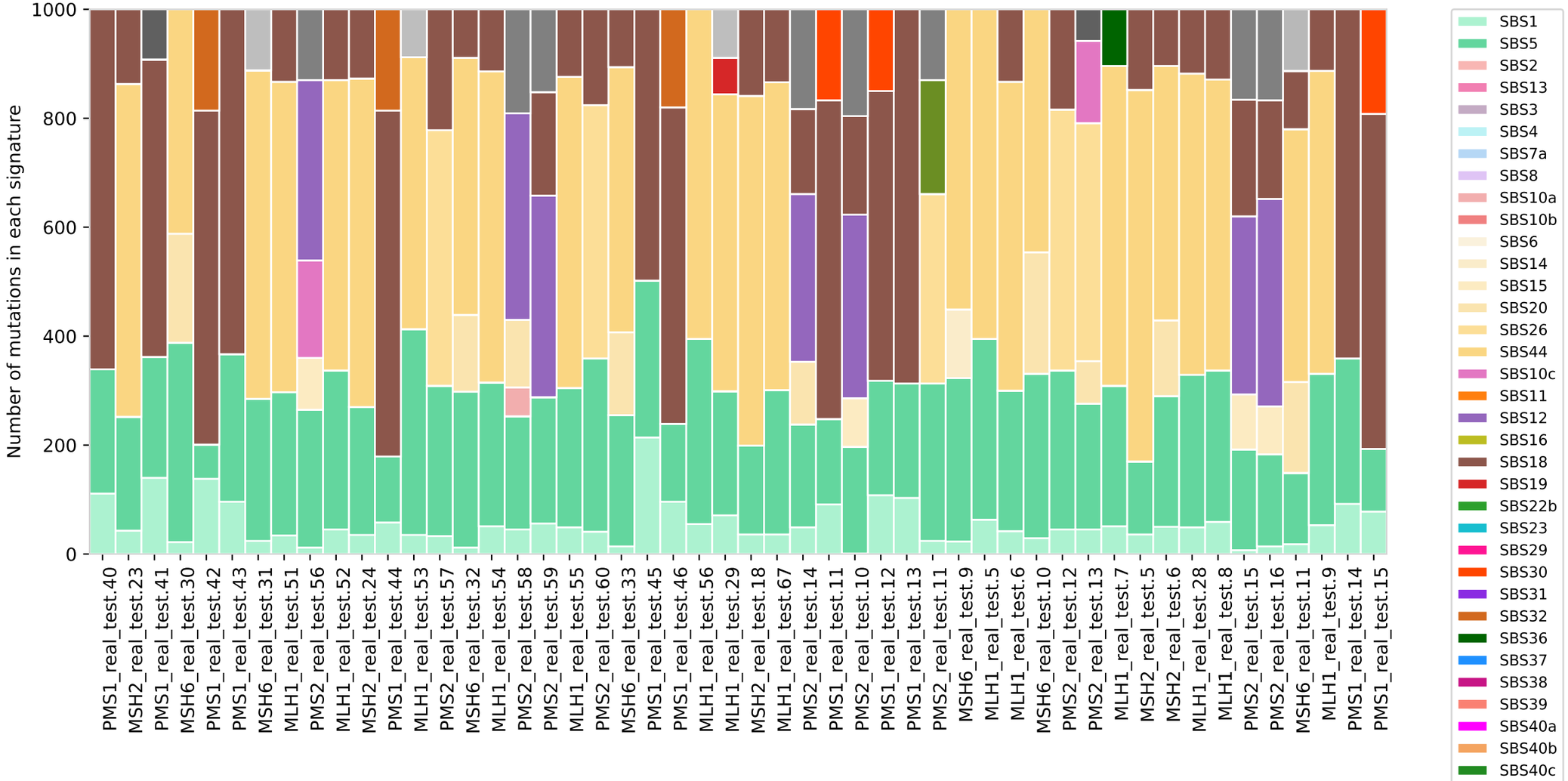
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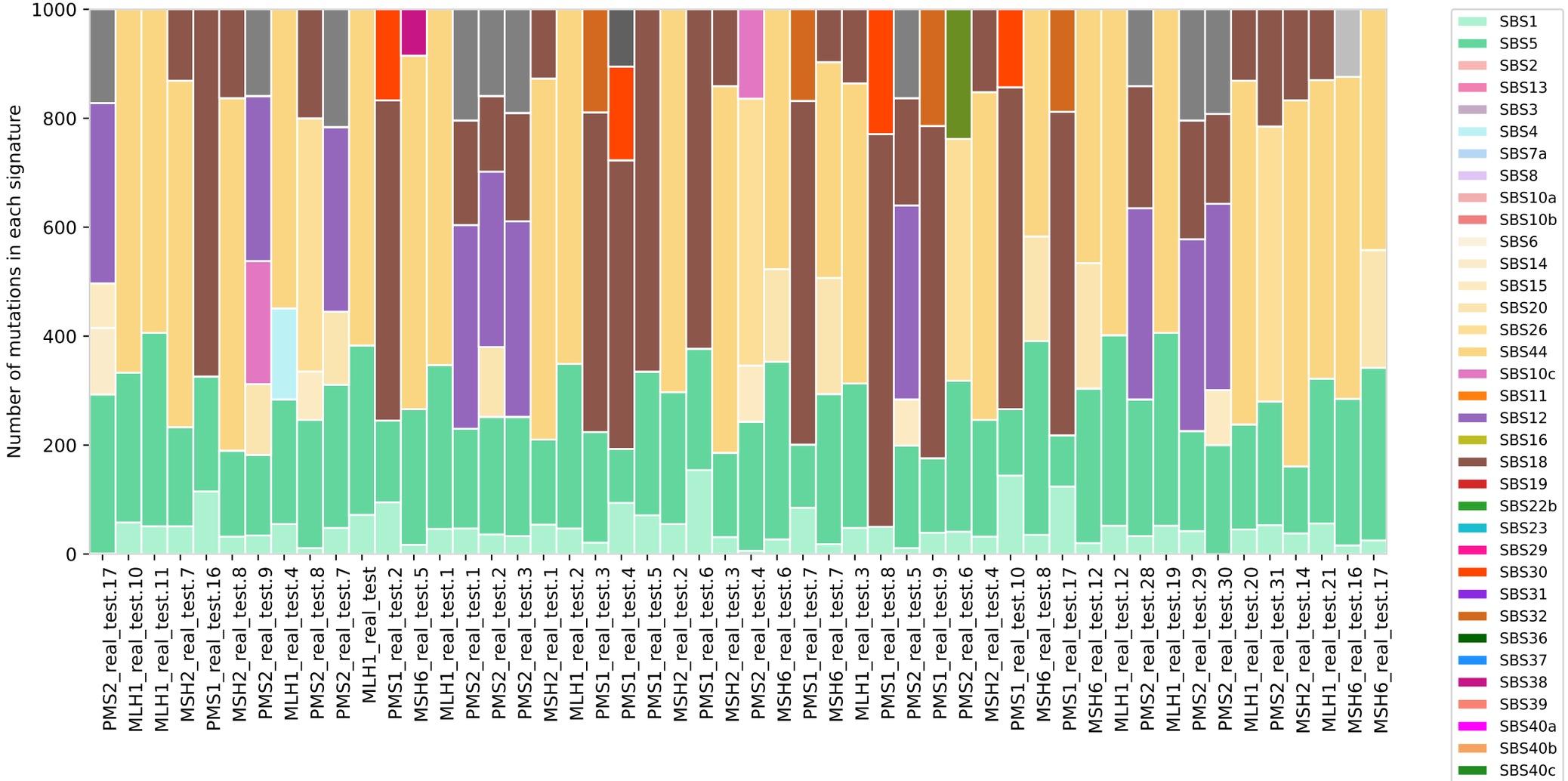
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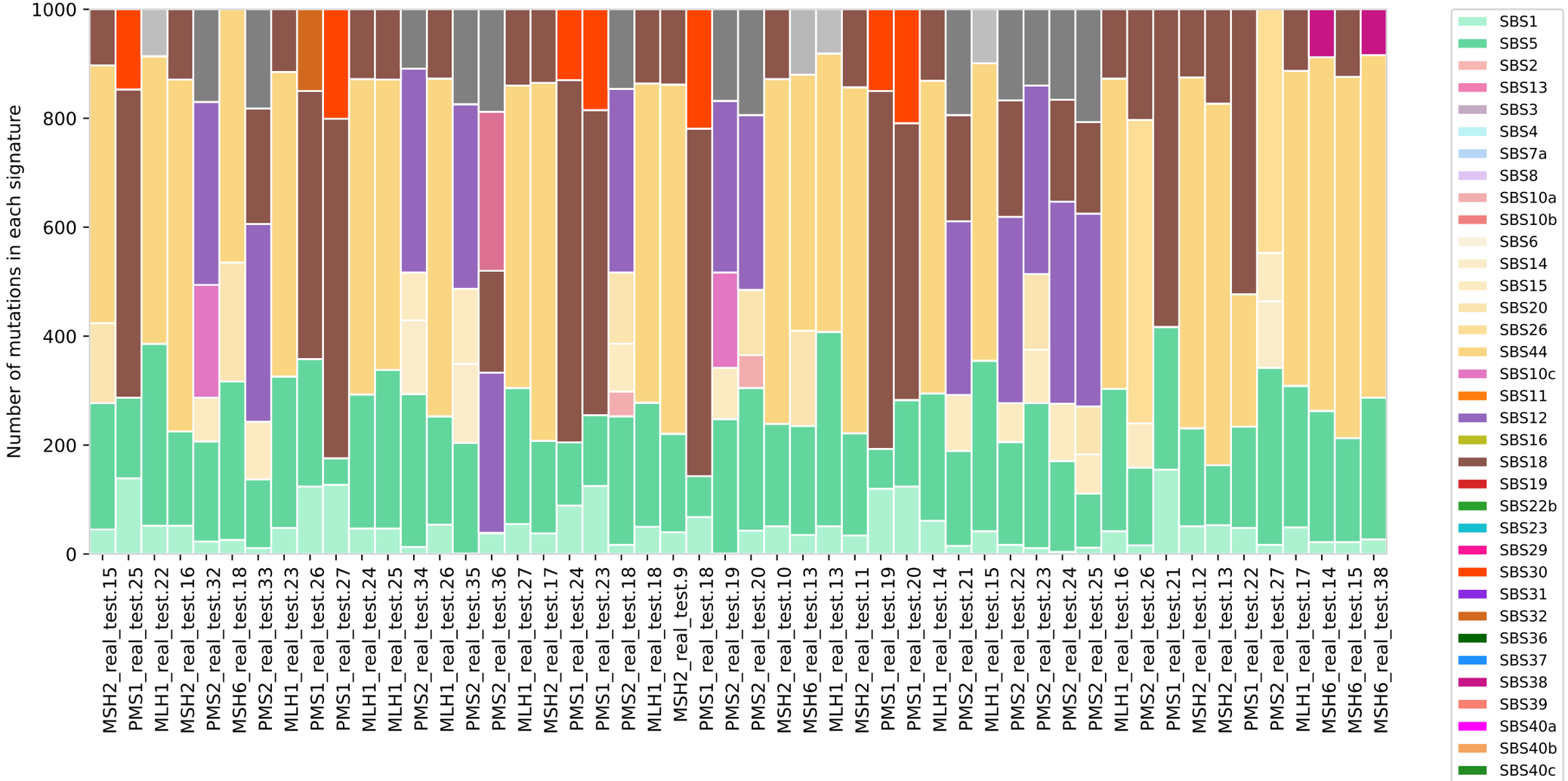
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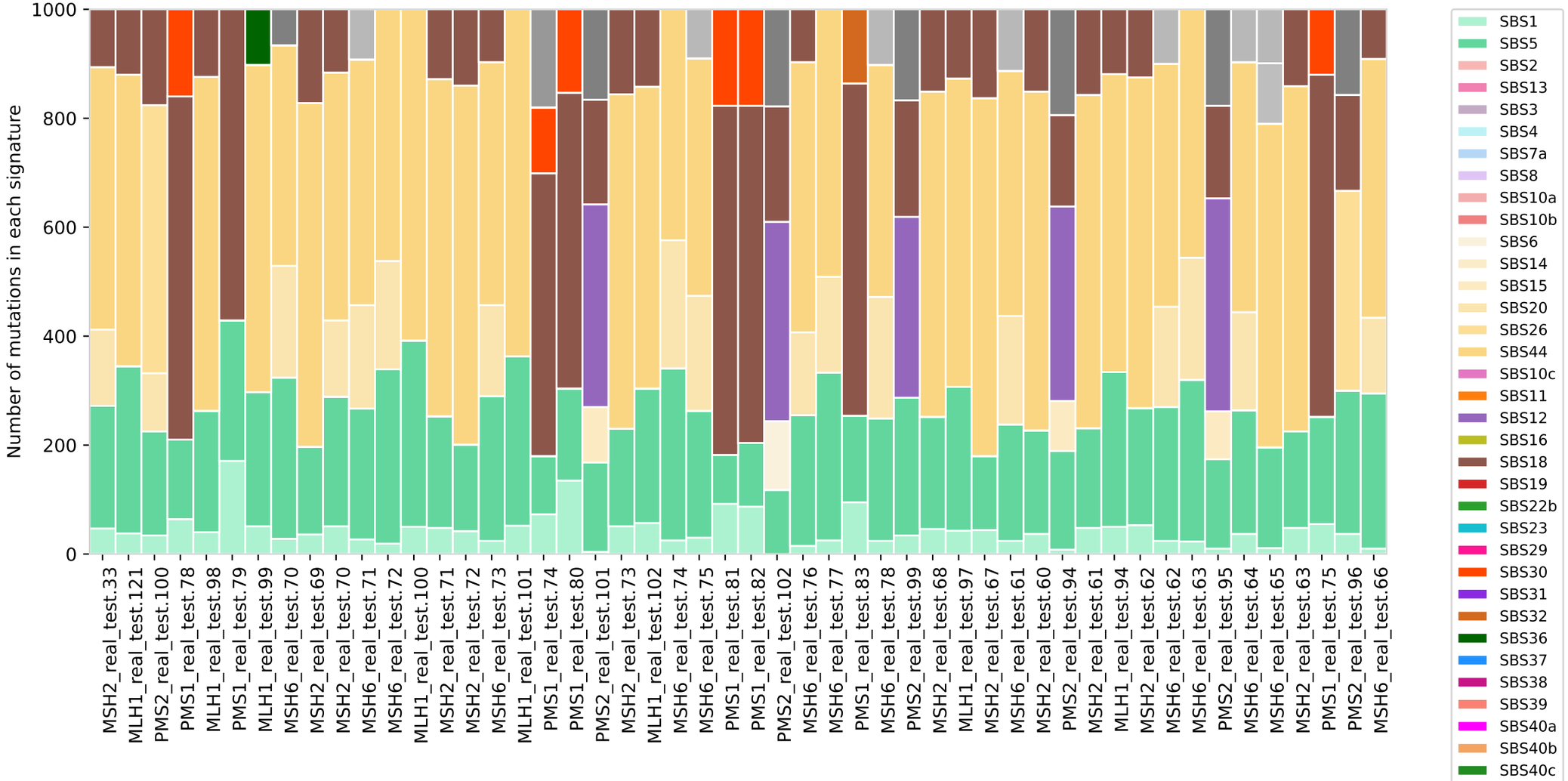
Number of mutations in each signature
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MLH1_real_test.98
PMS1_real_test.79
MLH1_real_test.99
MSH6_real_test.70
MSH2_real_test.69
MSH2_real_test.70
MSH6_real_test.71
MSH6_real_test.72
MLH1_real_test.100
MSH2_real_test.71
MSH2_real_test.72
MSH6_real_test.73
MLH1_real_test.101
PMS1_real_test.74
PMS1_real_test.80
PMS2_real_test.101
MSH2_real_test.73
MLH1_real_test.102
MSH6_real_test.74
MSH6_real_test.75
PMS1_real_test.81
PMS1_real_test.82
PMS2_real_test.102
MSH6_real_test.76
MSH6_real_test.77
PMS1_real_test.83
MSH6_real_test.78
PMS2_real_test.99
MSH2_real_test.68
MLH1_real_test.97
MSH2_real_test.67
MSH6_real_test.61
MSH2_real_test.60
PMS2_real_test.94
MSH2_real_test.61
MLH1_real_test.94
MSH2_real_test.62
MSH6_real_test.62
MSH6_real_test.63
PMS2_real_test.95
MSH6_real_test.64
MSH6_real_test.65
MSH2_real_test.63
PMS1_real_test.75
PMS2_real_test.96
MSH6_real_test.66
SBS1
SBS5
SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
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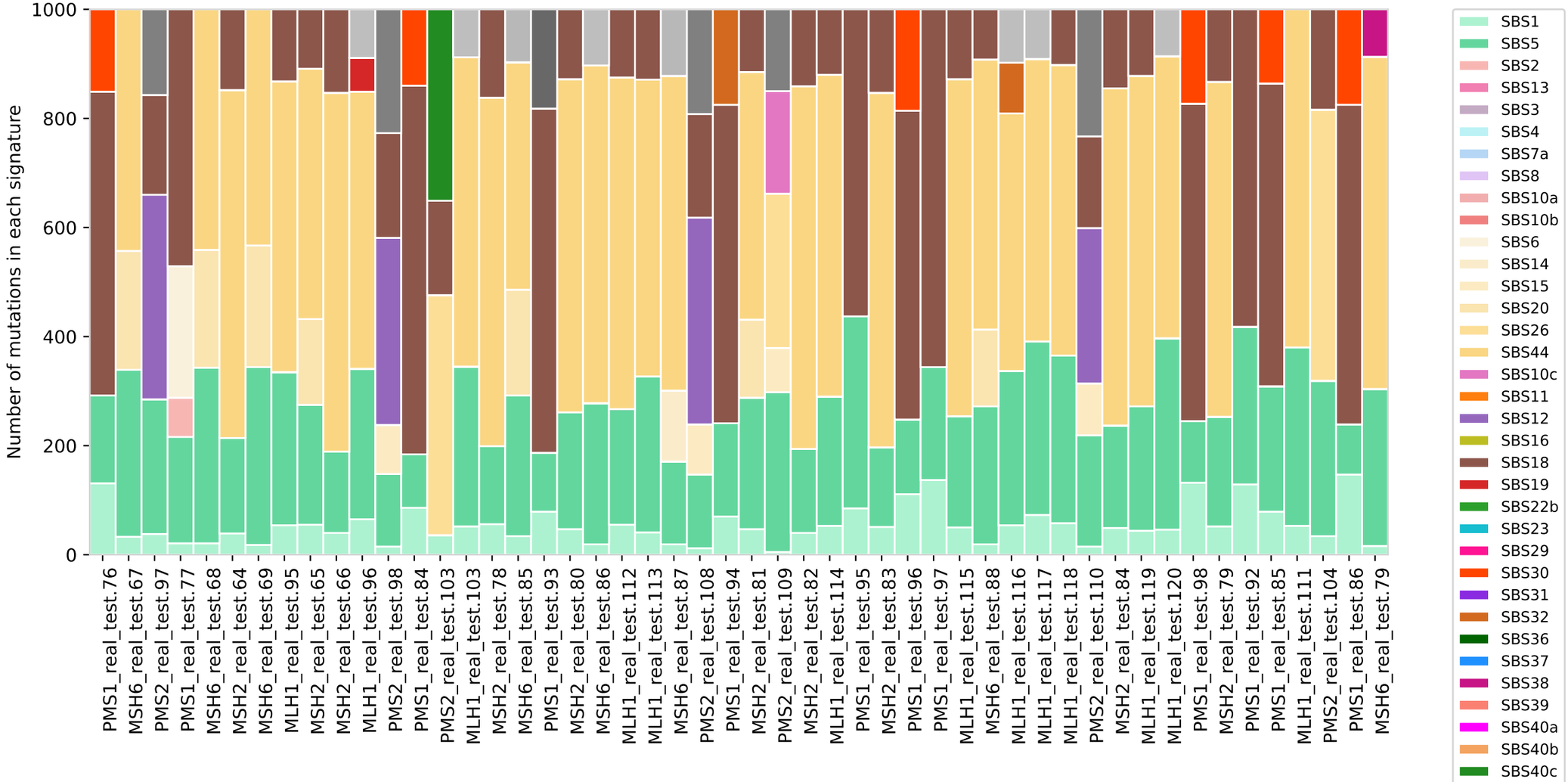
Number of mutations in each signature
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400
200
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PMS1_real_test.77
MSH6_real_test.68
MSH2_real_test.64
MSH6_real_test.69
MLH1_real_test.95
MSH2_real_test.65
MSH2_real_test.66
MLH1_real_test.96
PMS2_real_test.98
PMS1_real_test.84
PMS2_real_test.103
MLH1_real_test.103
MSH2_real_test.78
MSH6_real_test.85
PMS1_real_test.93
MSH2_real_test.80
MSH6_real_test.86
MLH1_real_test.112
MLH1_real_test.113
MSH6_real_test.87
PMS2_real_test.108
PMS1_real_test.94
MSH2_real_test.81
PMS2_real_test.109
MSH2_real_test.82
MLH1_real_test.114
PMS1_real_test.95
MSH2_real_test.83
PMS1_real_test.96
PMS1_real_test.97
MLH1_real_test.115
MSH6_real_test.88
MLH1_real_test.116
MLH1_real_test.117
MLH1_real_test.118
PMS2_real_test.110
MSH2_real_test.84
MLH1_real_test.119
MLH1_real_test.120
PMS1_real_test.98
MSH2_real_test.79
PMS1_real_test.92
PMS1_real_test.85
MLH1_real_test.111
PMS2_real_test.104
PMS1_real_test.86
MSH6_real_test.79
SBS1
SBS5
SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
SBS6
SBS14
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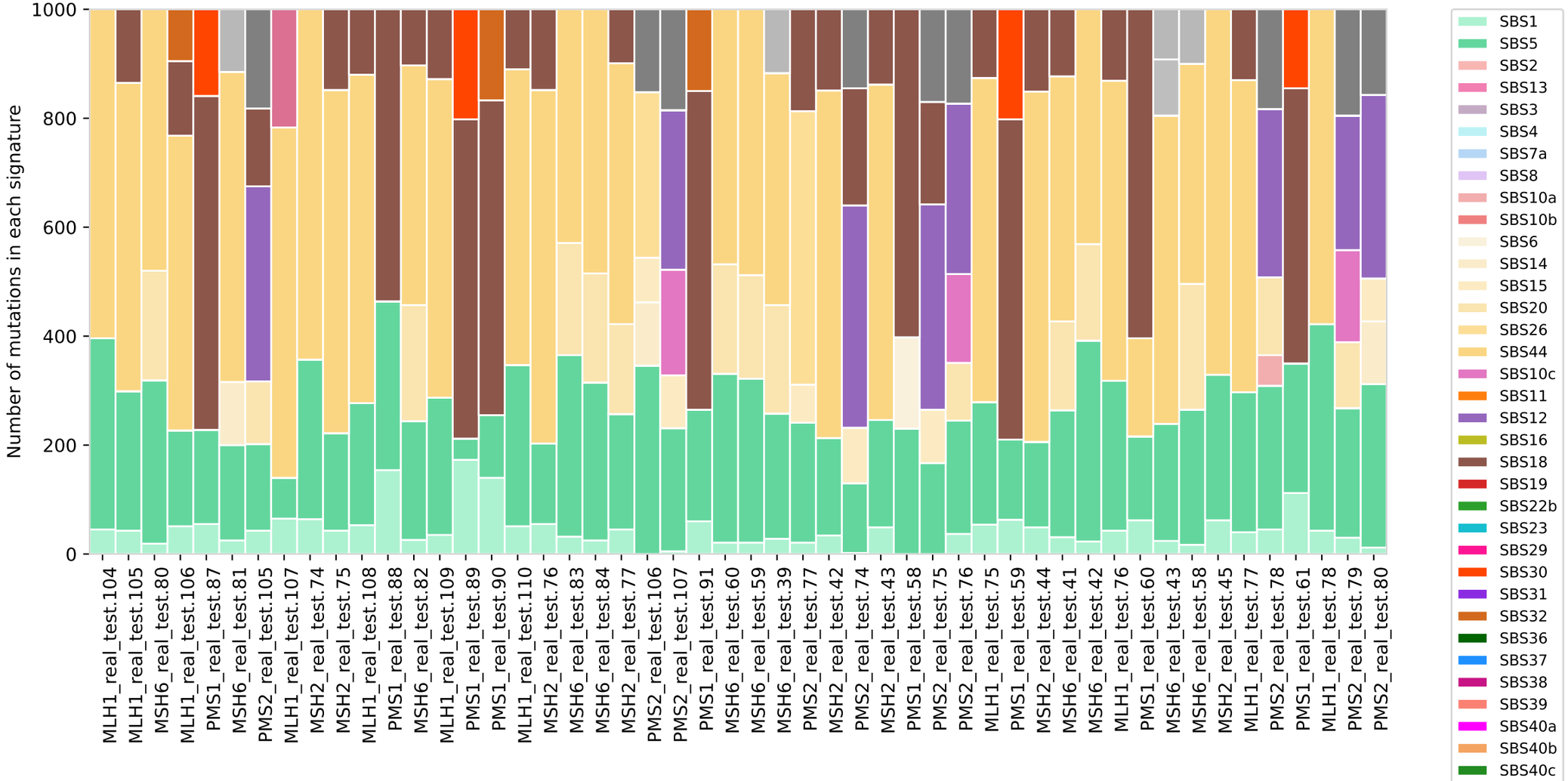
SBS40c


Number of mutations in each signature
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600
400
200
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MSH6_real_test.80
MLH1_real_test.106
PMS1_real_test.87
MSH6_real_test.81
PMS2_real_test.105
MLH1_real_test.107
MSH2_real_test.74
MSH2_real_test.75
MLH1_real_test.108
PMS1_real_test.88
MSH6_real_test.82
MLH1_real_test.109
PMS1_real_test.89
PMS1_real_test.90
MLH1_real_test.110
MSH2_real_test.76
MSH6_real_test.83
MSH6_real_test.84
MSH2_real_test.77
PMS2_real_test.106
PMS2_real_test.107
PMS1_real_test.91
MSH6_real_test.60
MSH6_real_test.59
MSH6_real_test.39
PMS2_real_test.77
MSH2_real_test.42
PMS2_real_test.74
MSH2_real_test.43
PMS1_real_test.58
PMS2_real_test.75
PMS2_real_test.76
MLH1_real_test.75
PMS1_real_test.59
MSH2_real_test.44
MSH6_real_test.41
MSH6_real_test.42
MLH1_real_test.76
PMS1_real_test.60
MSH6_real_test.43
MSH6_real_test.58
MSH2_real_test.45
MLH1_real_test.77
PMS2_real_test.78
PMS1_real_test.61
MLH1_real_test.78
PMS2_real_test.79
PMS2_real_test.80
SBS1
SBS5
SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
SBS6
SBS14
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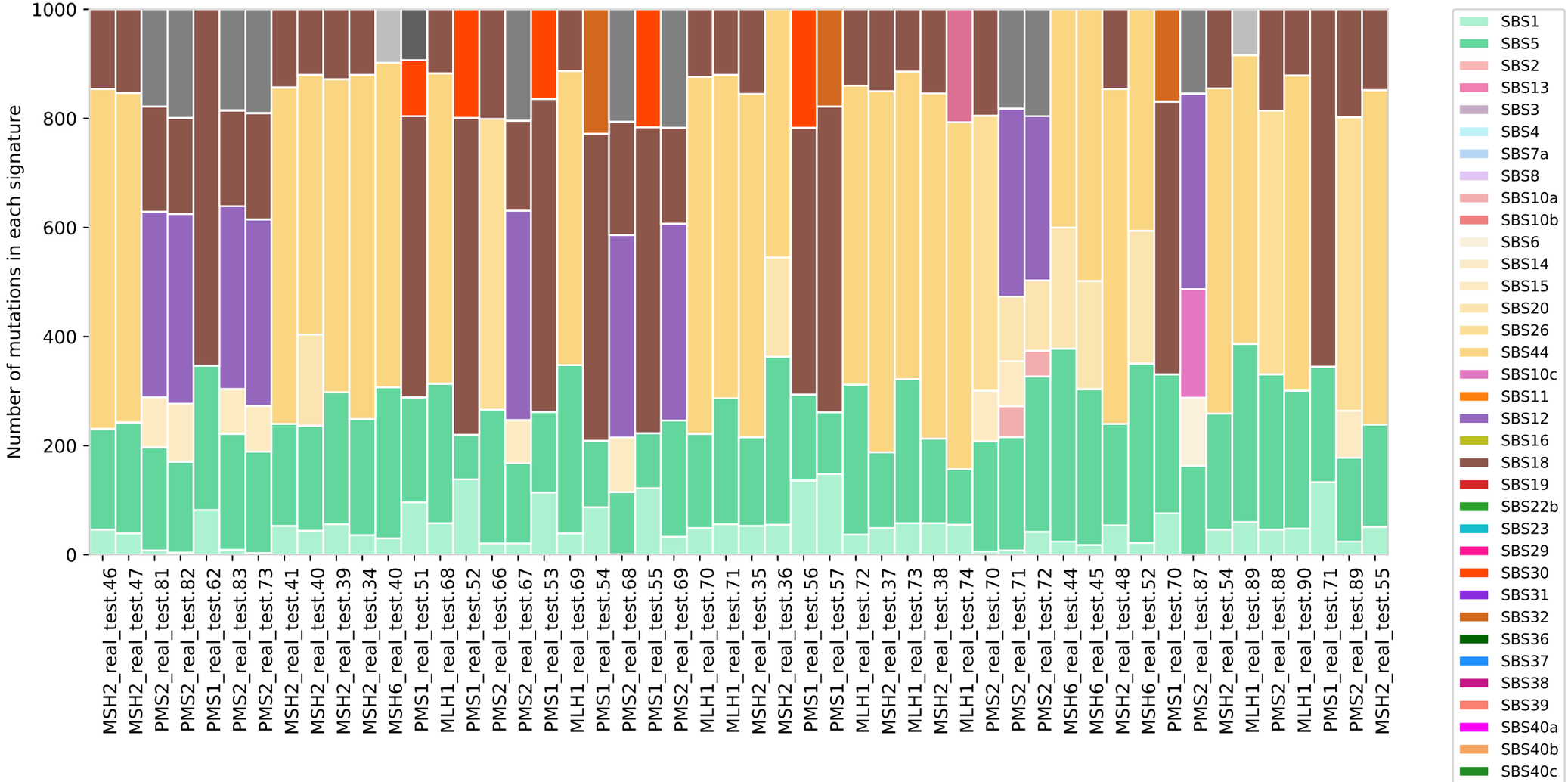
SBS40c


Number of mutations in each signature
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400
200
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PMS2_real_test.81
PMS2_real_test.82
PMS1_real_test.62
PMS2_real_test.83
PMS2_real_test.73
MSH2_real_test.41
MSH2_real_test.40
MSH2_real_test.39
MSH2_real_test.34
MSH6_real_test.40
PMS1_real_test.51
MLH1_real_test.68
PMS1_real_test.52
PMS2_real_test.66
PMS2_real_test.67
PMS1_real_test.53
MLH1_real_test.69
PMS1_real_test.54
PMS2_real_test.68
PMS1_real_test.55
PMS2_real_test.69
MLH1_real_test.70
MLH1_real_test.71
MSH2_real_test.35
MSH2_real_test.36
PMS1_real_test.56
PMS1_real_test.57
MLH1_real_test.72
MSH2_real_test.37
MLH1_real_test.73
MSH2_real_test.38
MLH1_real_test.74
PMS2_real_test.70
PMS2_real_test.71
PMS2_real_test.72
MSH6_real_test.44
MSH6_real_test.45
MSH2_real_test.48
MSH6_real_test.52
PMS1_real_test.70
PMS2_real_test.87
MSH2_real_test.54
MLH1_real_test.89
PMS2_real_test.88
MLH1_real_test.90
PMS1_real_test.71
PMS2_real_test.89
MSH2_real_test.55
SBS1
SBS5
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SBS4
SBS7a
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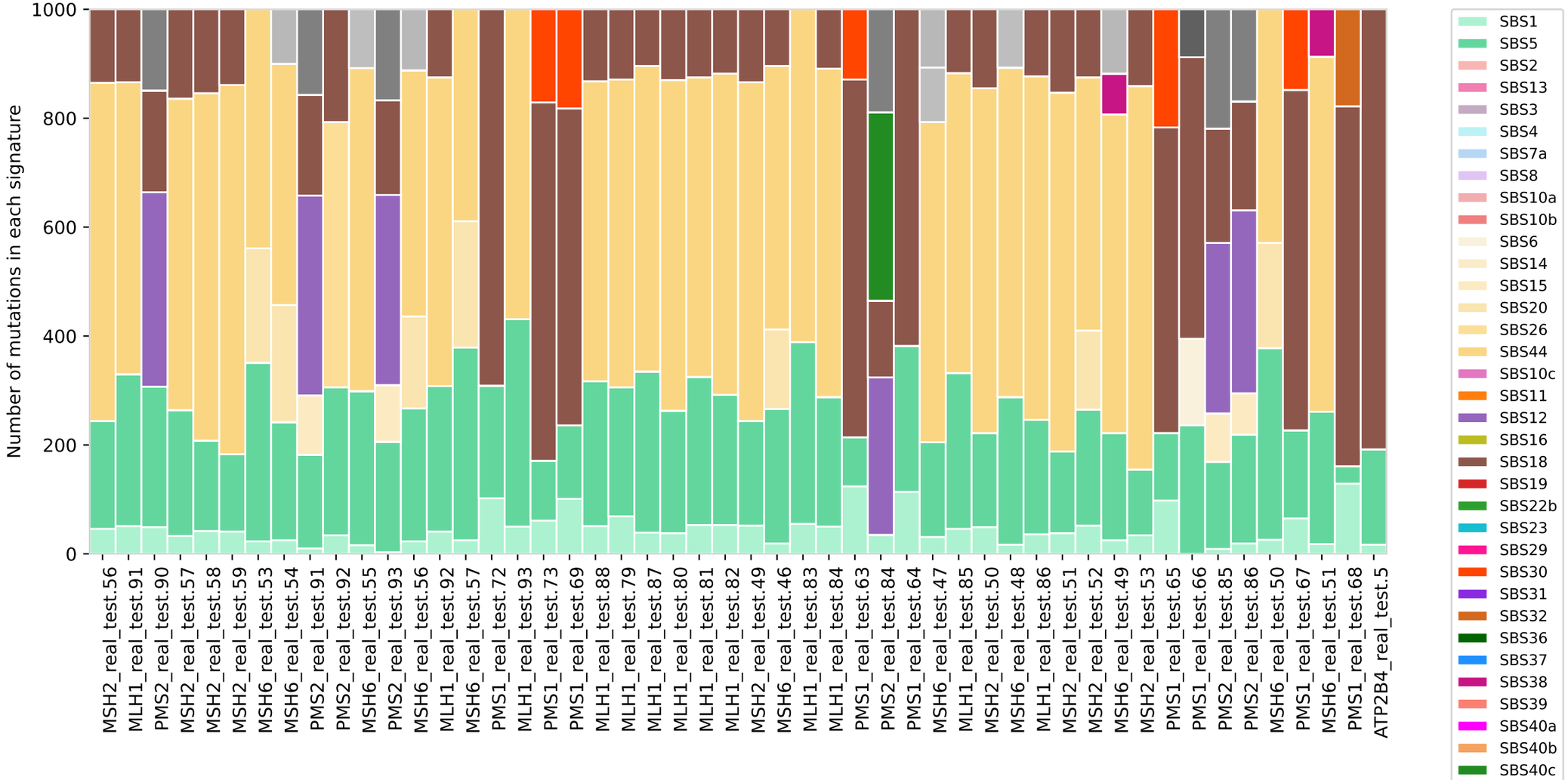
Number of mutations in each signature
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400
200
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MSH2_real_test.56
MLH1_real_test.91
PMS2_real_test.90
MSH2_real_test.57
MSH2_real_test.58
MSH2_real_test.59
MSH6_real_test.53
MSH6_real_test.54
PMS2_real_test.91
PMS2_real_test.92
MSH6_real_test.55
PMS2_real_test.93
MSH6_real_test.56
MLH1_real_test.92
MSH6_real_test.57
PMS1_real_test.72
MLH1_real_test.93
PMS1_real_test.73
PMS1_real_test.69
MLH1_real_test.88
MLH1_real_test.79
MLH1_real_test.87
MLH1_real_test.80
MLH1_real_test.81
MLH1_real_test.82
MSH2_real_test.49
MSH6_real_test.46
MLH1_real_test.83
MLH1_real_test.84
PMS1_real_test.63
PMS2_real_test.84
PMS1_real_test.64
MSH6_real_test.47
MLH1_real_test.85
MSH2_real_test.50
MSH6_real_test.48
MLH1_real_test.86
MSH2_real_test.51
MSH2_real_test.52
MSH6_real_test.49
MSH2_real_test.53
PMS1_real_test.65
PMS1_real_test.66
PMS2_real_test.85
PMS2_real_test.86
MSH6_real_test.50
PMS1_real_test.67
MSH6_real_test.51
PMS1_real_test.68
ATP2B4_real_test.5
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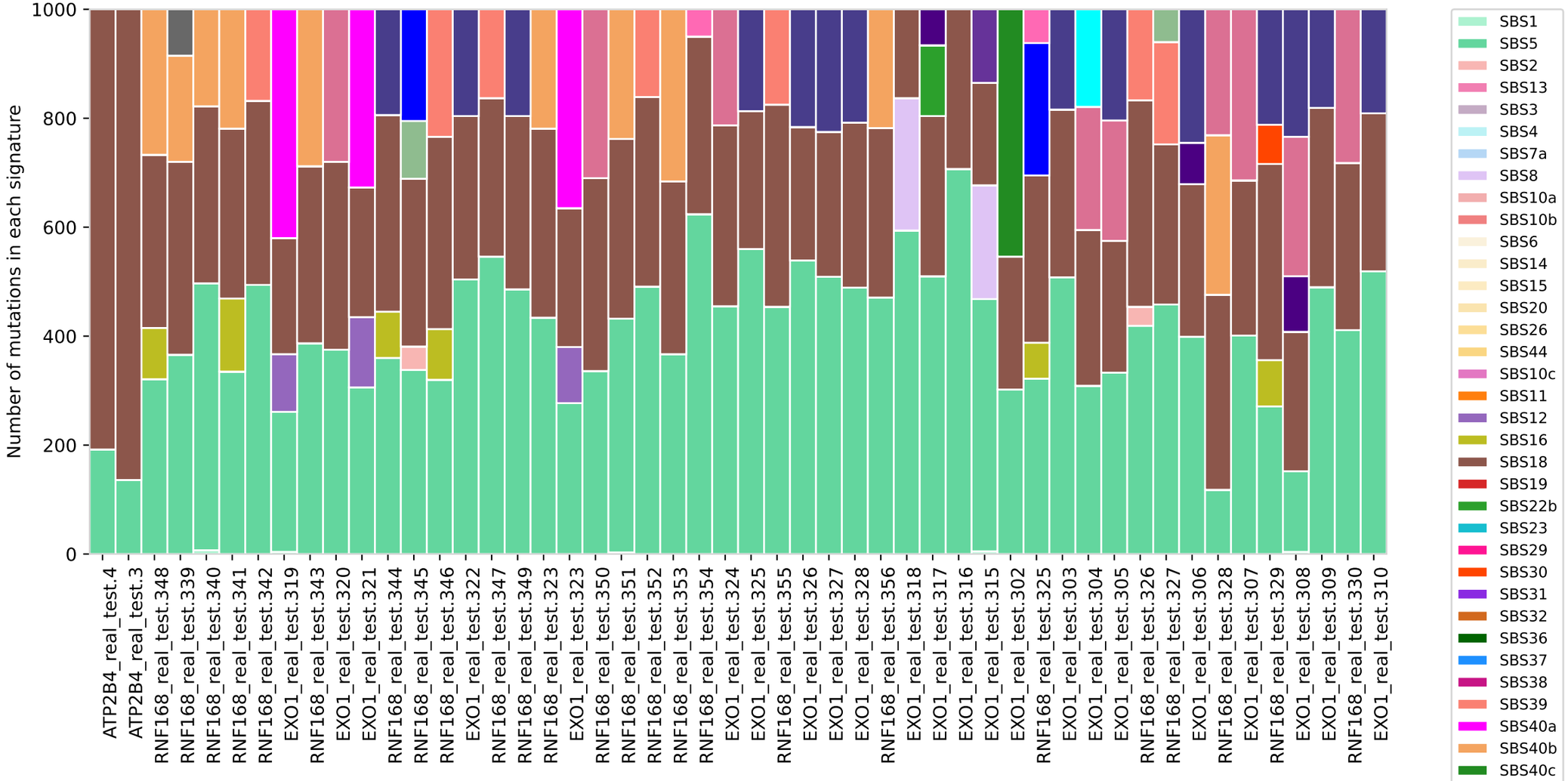
SBS40c


Number of mutations in each signature
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ATP2B4_real_test.3
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RNF168_real_test.340
RNF168_real_test.341
RNF168_real_test.342
EXO1_real_test.319
RNF168_real_test.343
EXO1_real_test.320
EXO1_real_test.321
RNF168_real_test.344
RNF168_real_test.345
RNF168_real_test.346
EXO1_real_test.322
RNF168_real_test.347
RNF168_real_test.349
RNF168_real_test.323
EXO1_real_test.323
RNF168_real_test.350
RNF168_real_test.351
RNF168_real_test.352
RNF168_real_test.353
RNF168_real_test.354
EXO1_real_test.324
EXO1_real_test.325
RNF168_real_test.355
EXO1_real_test.326
EXO1_real_test.327
EXO1_real_test.328
RNF168_real_test.356
EXO1_real_test.318
EXO1_real_test.317
EXO1_real_test.316
EXO1_real_test.315
EXO1_real_test.302
RNF168_real_test.325
EXO1_real_test.303
EXO1_real_test.304
EXO1_real_test.305
RNF168_real_test.326
RNF168_real_test.327
EXO1_real_test.306
RNF168_real_test.328
EXO1_real_test.307
RNF168_real_test.329
EXO1_real_test.308
EXO1_real_test.309
RNF168_real_test.330
EXO1_real_test.310
SBS1
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SBS16
SBS18
SBS19
SBS22b
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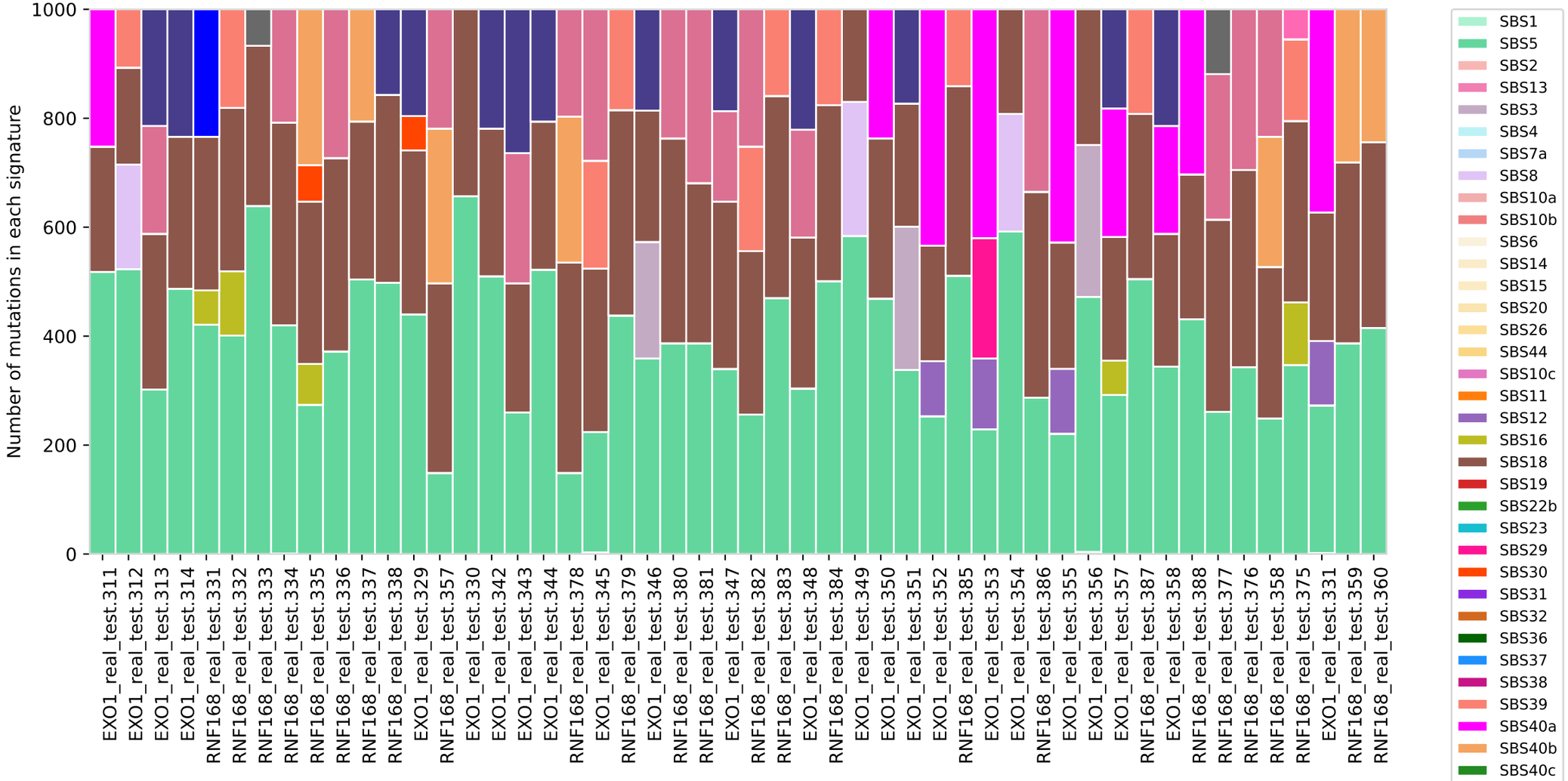
SBS40b
SBS40c


Number of mutations in each signature
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EXO1_real_test.313
EXO1_real_test.314
RNF168_real_test.331
RNF168_real_test.332
RNF168_real_test.333
RNF168_real_test.334
RNF168_real_test.335
RNF168_real_test.336
RNF168_real_test.337
RNF168_real_test.338
EXO1_real_test.329
RNF168_real_test.357
EXO1_real_test.330
EXO1_real_test.342
EXO1_real_test.343
EXO1_real_test.344
RNF168_real_test.378
EXO1_real_test.345
RNF168_real_test.379
EXO1_real_test.346
RNF168_real_test.380
RNF168_real_test.381
EXO1_real_test.347
RNF168_real_test.382
RNF168_real_test.383
EXO1_real_test.348
RNF168_real_test.384
EXO1_real_test.349
EXO1_real_test.350
EXO1_real_test.351
EXO1_real_test.352
RNF168_real_test.385
EXO1_real_test.353
EXO1_real_test.354
RNF168_real_test.386
EXO1_real_test.355
EXO1_real_test.356
EXO1_real_test.357
RNF168_real_test.387
EXO1_real_test.358
RNF168_real_test.388
RNF168_real_test.377
RNF168_real_test.376
RNF168_real_test.358
RNF168_real_test.375
EXO1_real_test.331
RNF168_real_test.359
RNF168_real_test.360
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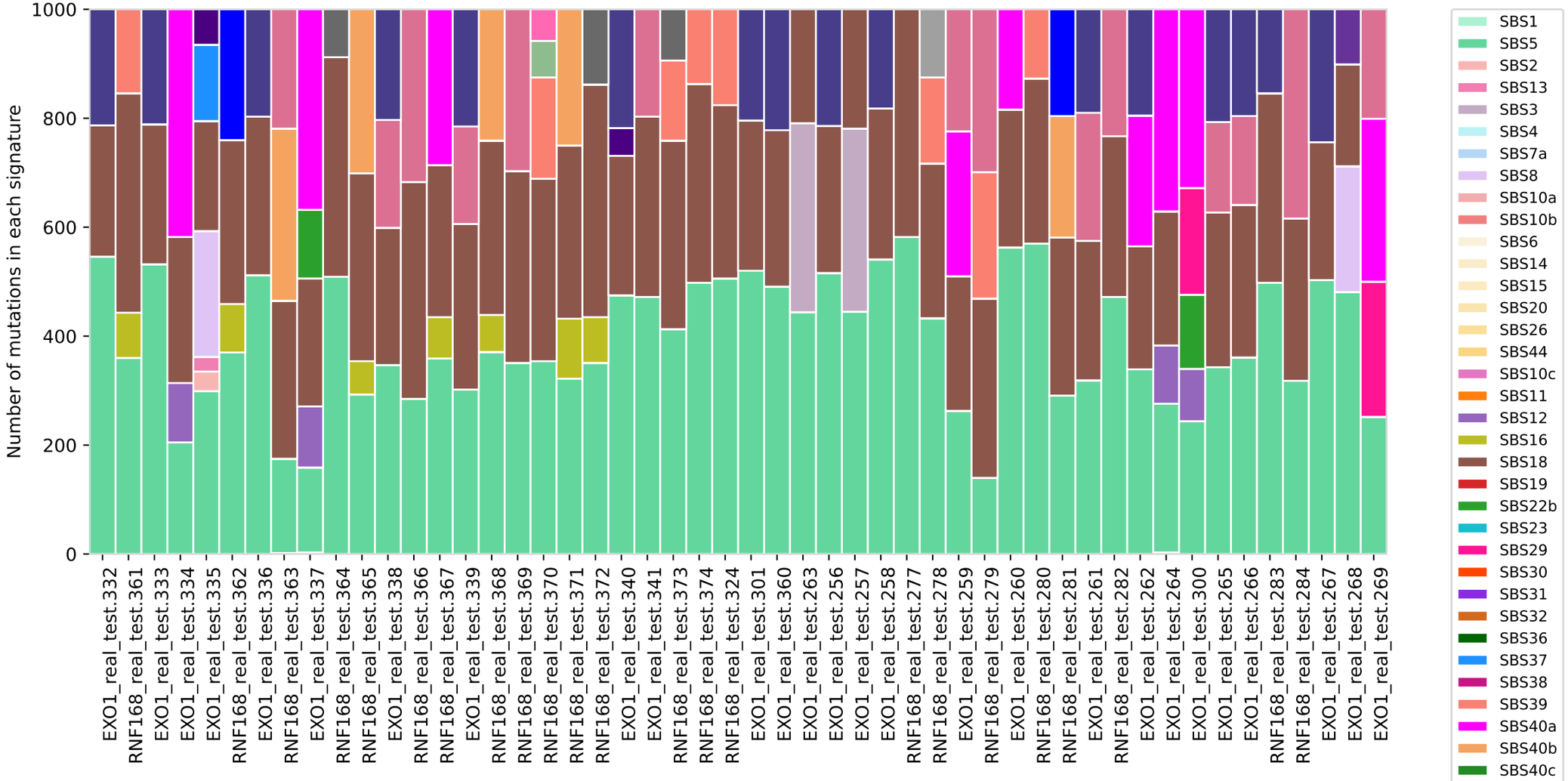
SBS40c


Number of mutations in each signature
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400
200
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EXO1_real_test.334
EXO1_real_test.335
RNF168_real_test.362
EXO1_real_test.336
RNF168_real_test.363
EXO1_real_test.337
RNF168_real_test.364
RNF168_real_test.365
EXO1_real_test.338
RNF168_real_test.366
RNF168_real_test.367
EXO1_real_test.339
RNF168_real_test.368
RNF168_real_test.369
RNF168_real_test.370
RNF168_real_test.371
RNF168_real_test.372
EXO1_real_test.340
EXO1_real_test.341
RNF168_real_test.373
RNF168_real_test.374
RNF168_real_test.324
EXO1_real_test.301
EXO1_real_test.360
EXO1_real_test.263
EXO1_real_test.256
EXO1_real_test.257
EXO1_real_test.258
RNF168_real_test.277
RNF168_real_test.278
EXO1_real_test.259
RNF168_real_test.279
EXO1_real_test.260
RNF168_real_test.280
RNF168_real_test.281
EXO1_real_test.261
RNF168_real_test.282
EXO1_real_test.262
EXO1_real_test.264
EXO1_real_test.300
EXO1_real_test.265
EXO1_real_test.266
RNF168_real_test.283
RNF168_real_test.284
EXO1_real_test.267
EXO1_real_test.268
EXO1_real_test.269
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SBS4
SBS7a
SBS8
SBS10a
SBS10b
SBS6
SBS14
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SBS20
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SBS44
SBS10c
SBS11
SBS12
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SBS18
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SBS22b
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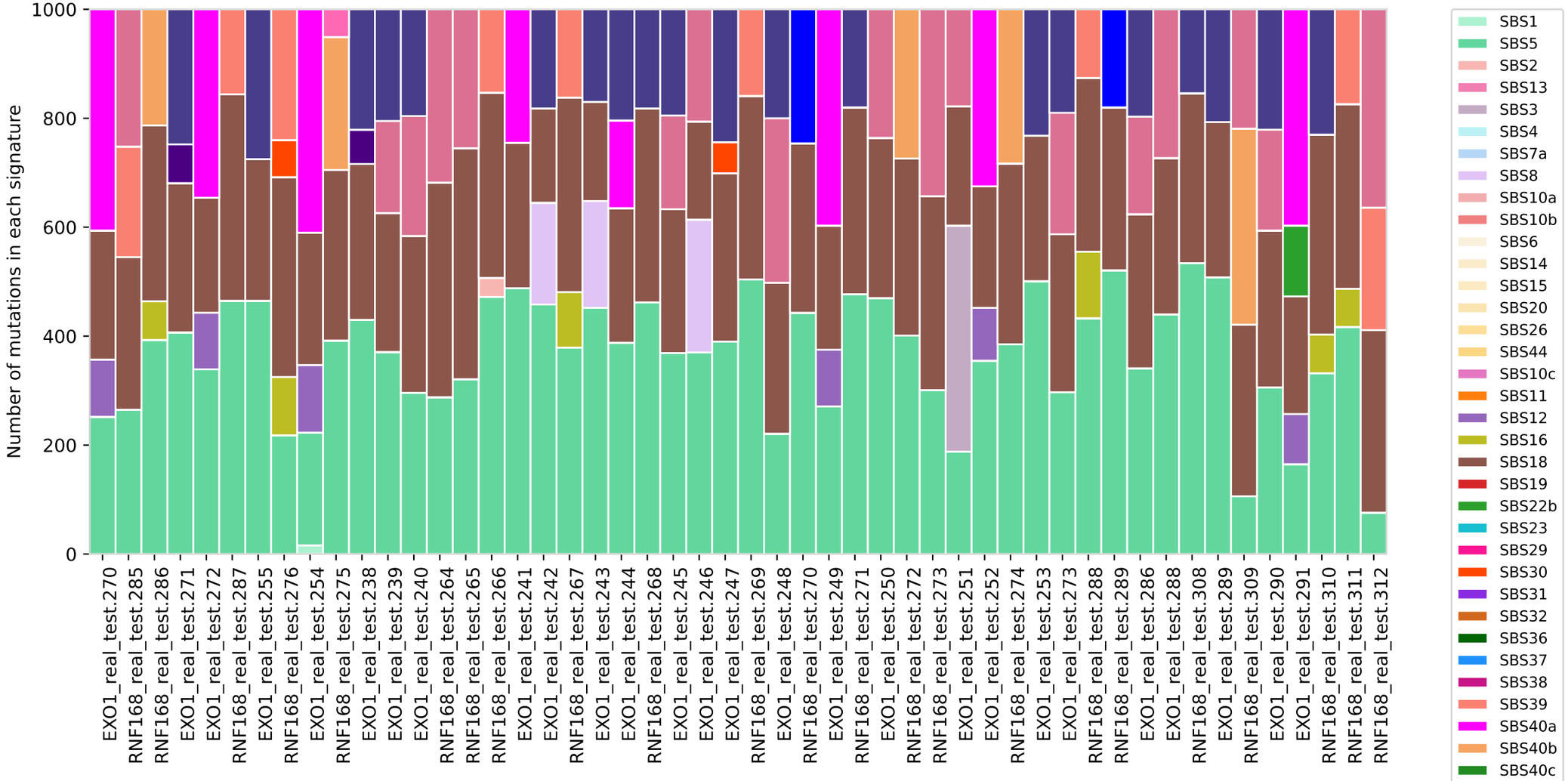
SBS40b
SBS40c


Number of mutations in each signature
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200
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EXO1_real_test.272
RNF168_real_test.287
EXO1_real_test.255
RNF168_real_test.276
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RNF168_real_test.275
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RNF168_real_test.266
EXO1_real_test.241
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EXO1_real_test.247
RNF168_real_test.269
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RNF168_real_test.270
EXO1_real_test.249
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EXO1_real_test.250
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EXO1_real_test.251
EXO1_real_test.252
RNF168_real_test.274
EXO1_real_test.253
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EXO1_real_test.286
EXO1_real_test.288
RNF168_real_test.308
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EXO1_real_test.290
EXO1_real_test.291
RNF168_real_test.310
RNF168_real_test.311
RNF168_real_test.312
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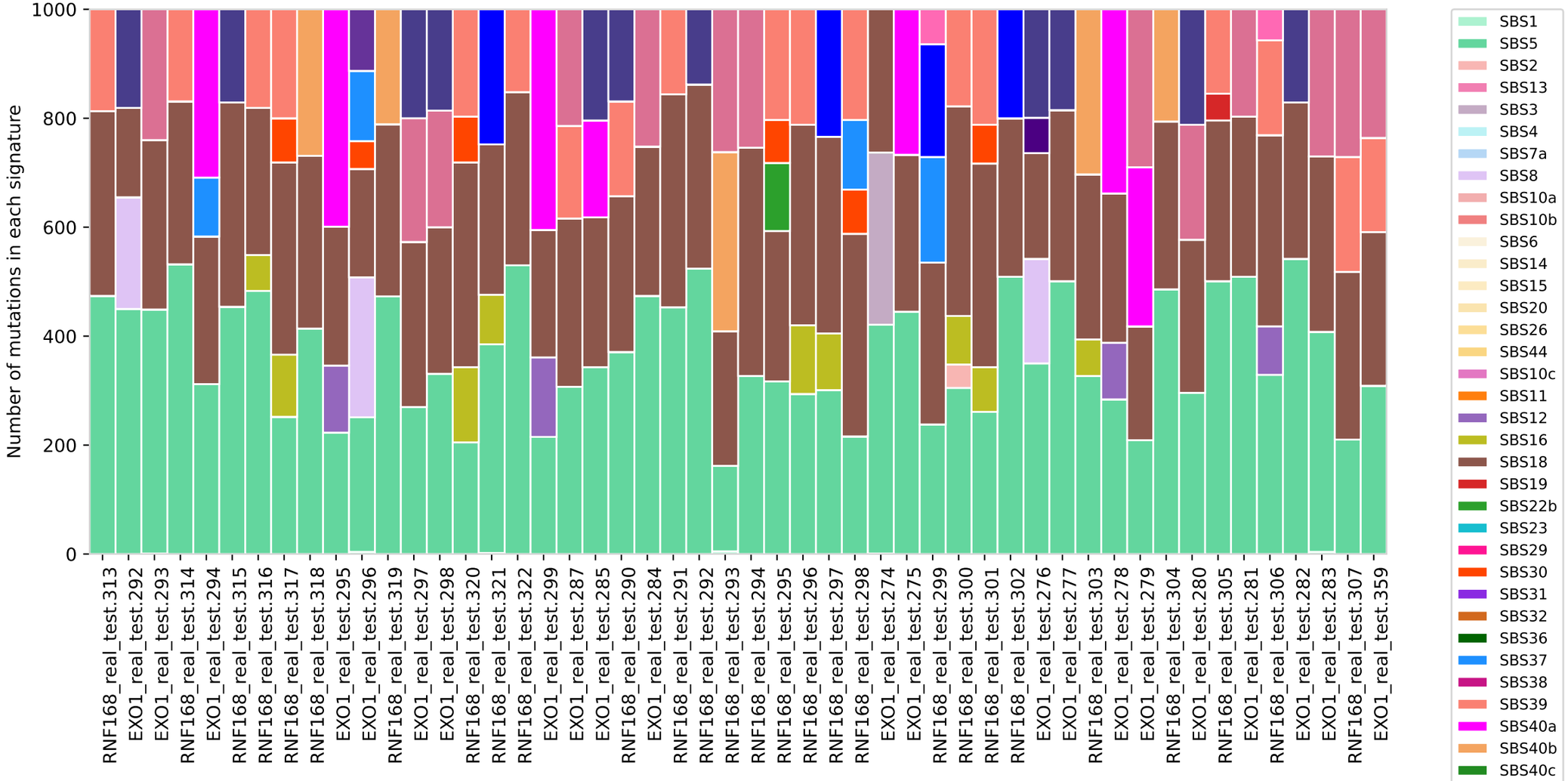
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RNF168_real_test.298
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EXO1_real_test.359
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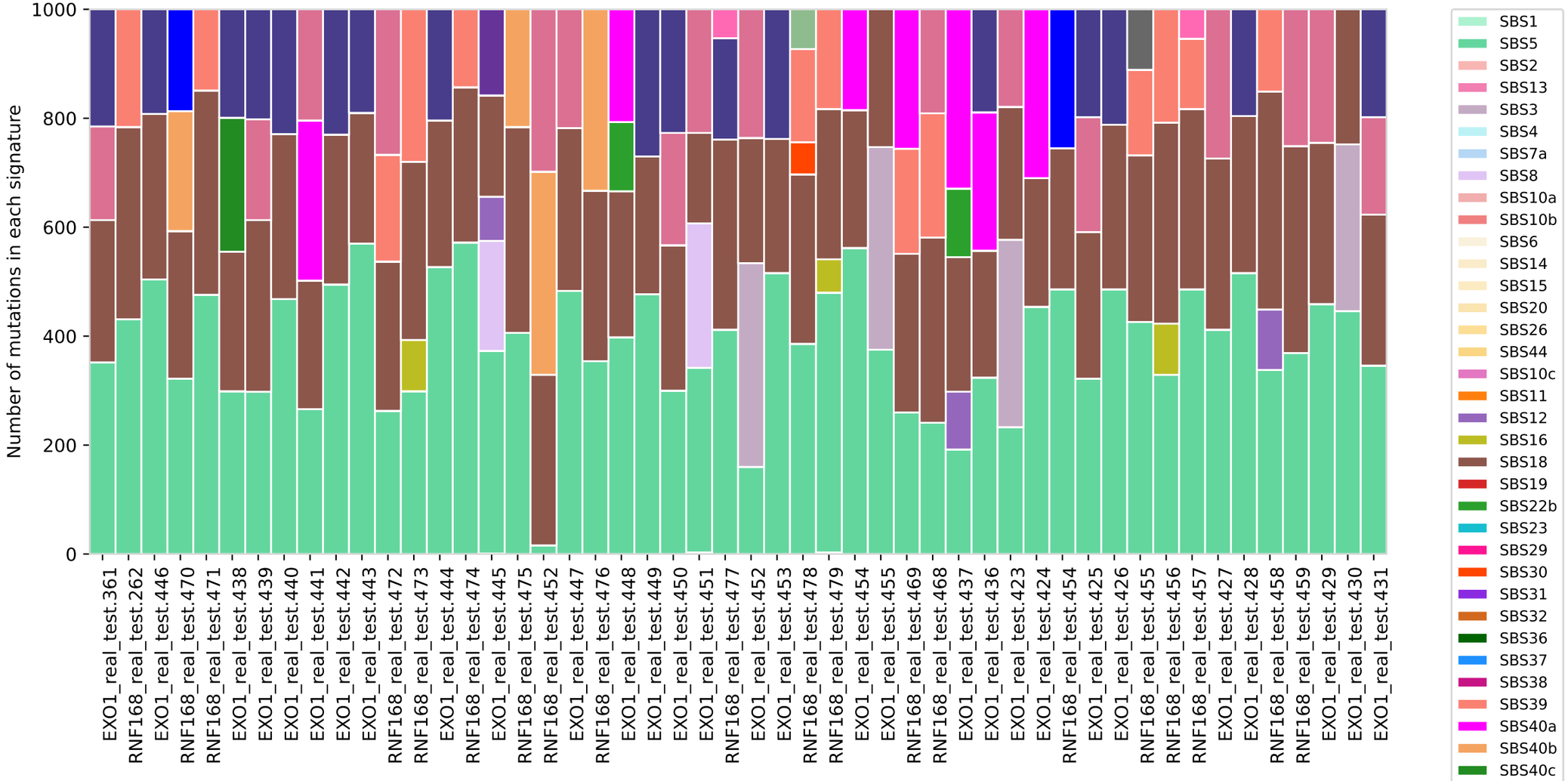
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RNF168_real_test.476
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EXO1_real_test.451
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EXO1_real_test.455
RNF168_real_test.469
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EXO1_real_test.425
EXO1_real_test.426
RNF168_real_test.455
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RNF168_real_test.459
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EXO1_real_test.431
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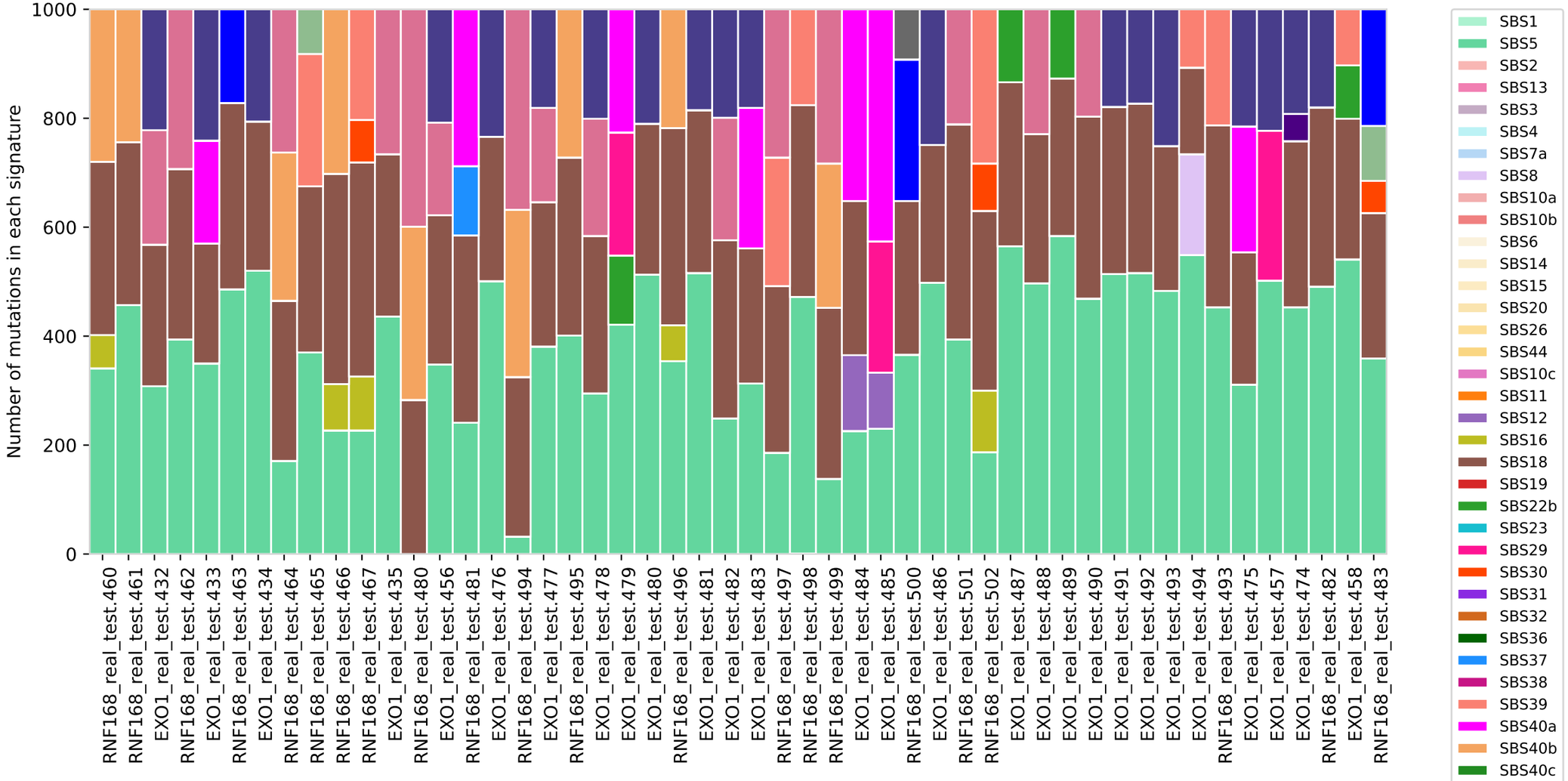
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RNF168_real_test.466
RNF168_real_test.467
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EXO1_real_test.456
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EXO1_real_test.477
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EXO1_real_test.480
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EXO1_real_test.481
EXO1_real_test.482
EXO1_real_test.483
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RNF168_real_test.502
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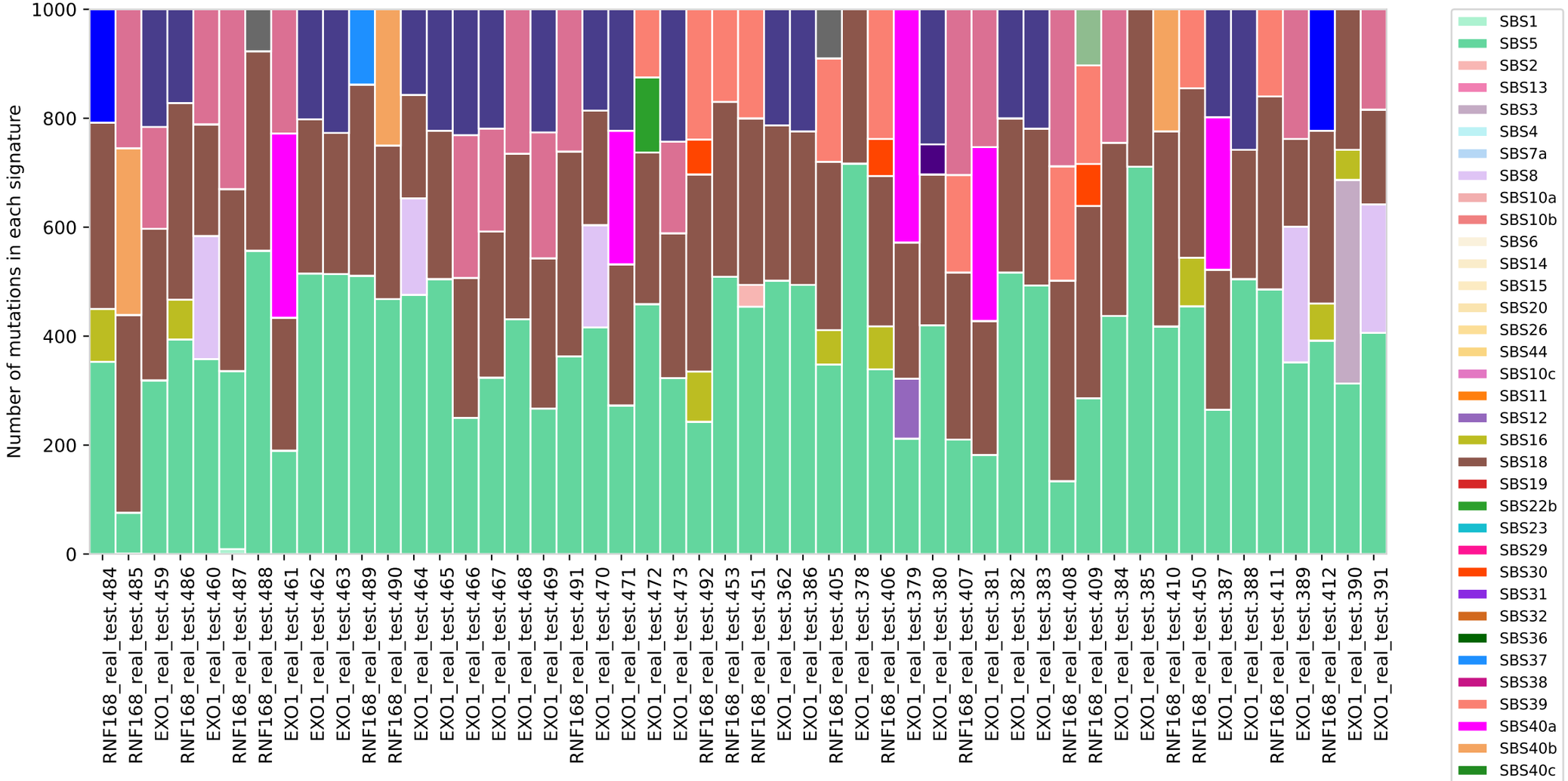
Number of mutations in each signature
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EXO1_real_test.390
EXO1_real_test.391
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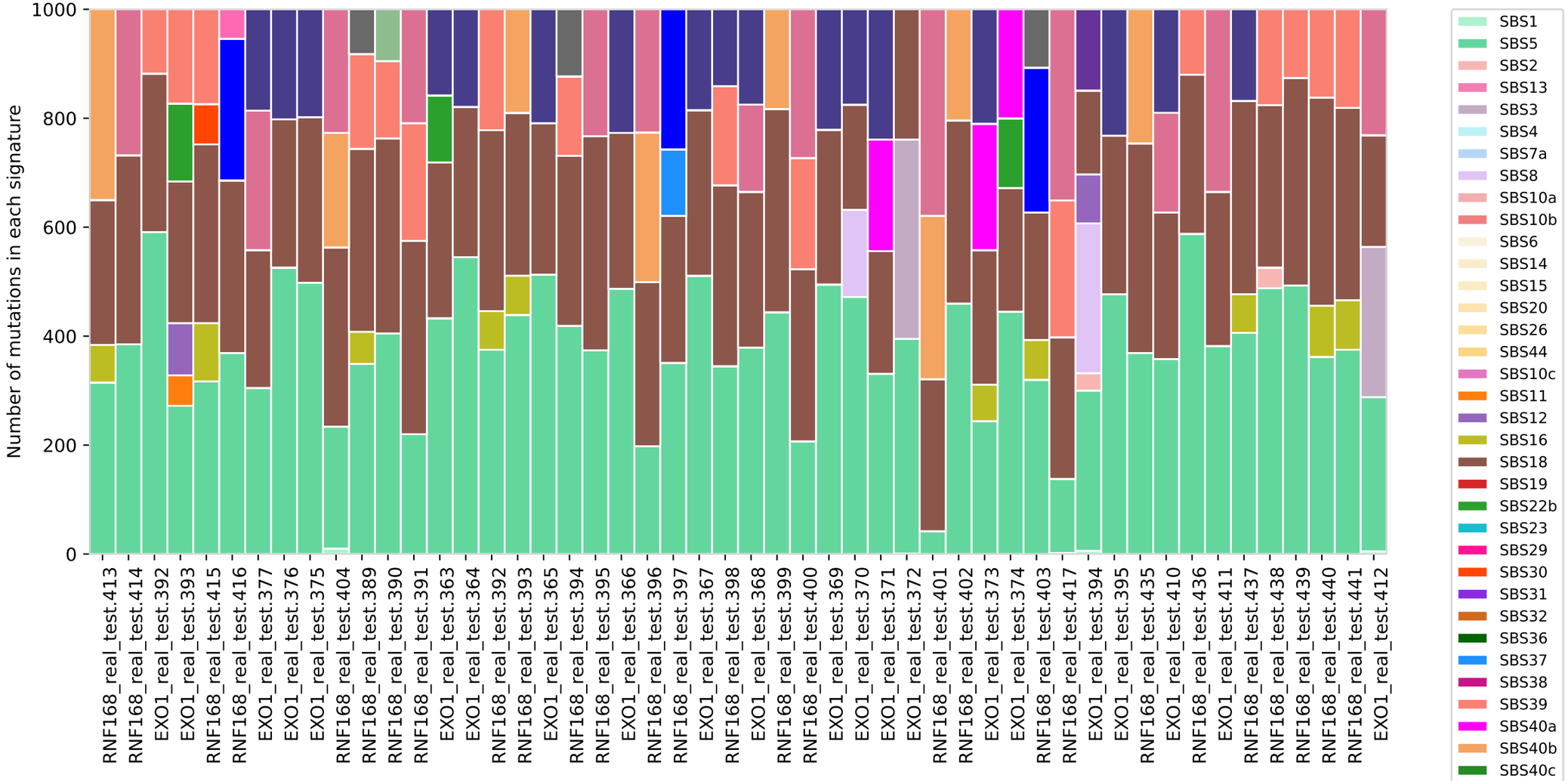
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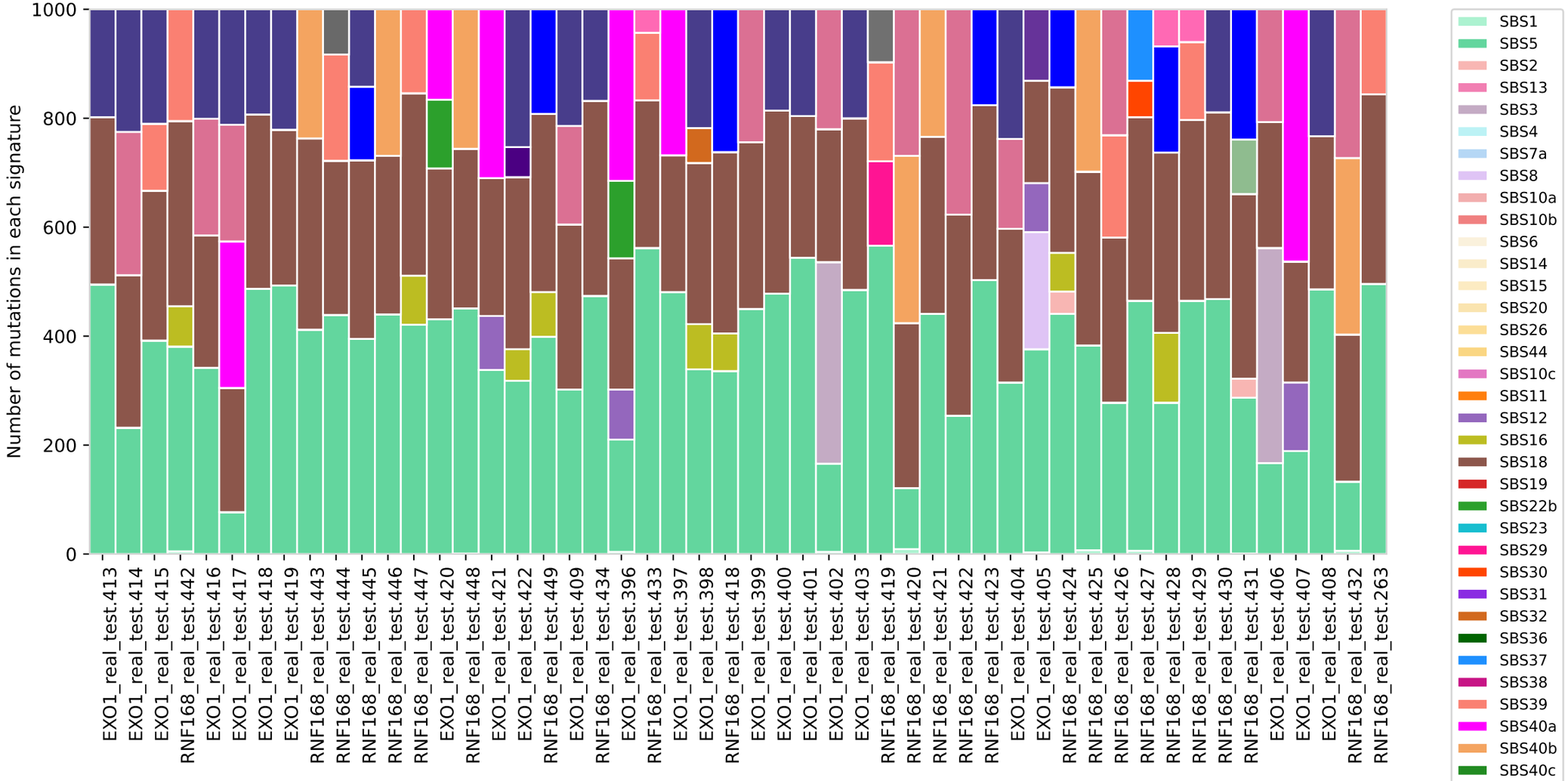
Number of mutations in each signature
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EXO1_real_test.418
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EXO1_real_test.398
RNF168_real_test.418
EXO1_real_test.399
EXO1_real_test.400
EXO1_real_test.401
EXO1_real_test.402
EXO1_real_test.403
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RNF168_real_test.423
EXO1_real_test.404
EXO1_real_test.405
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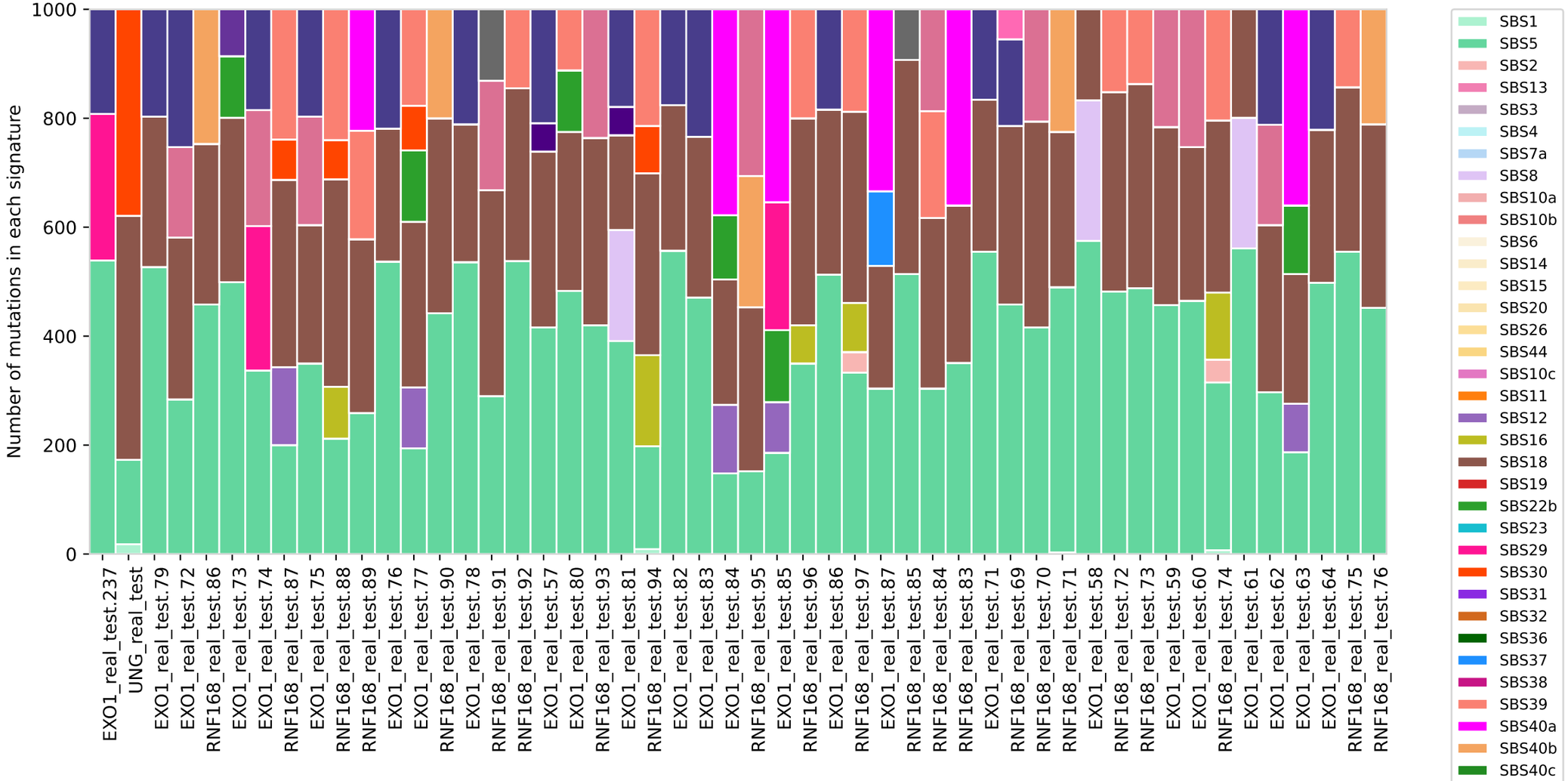
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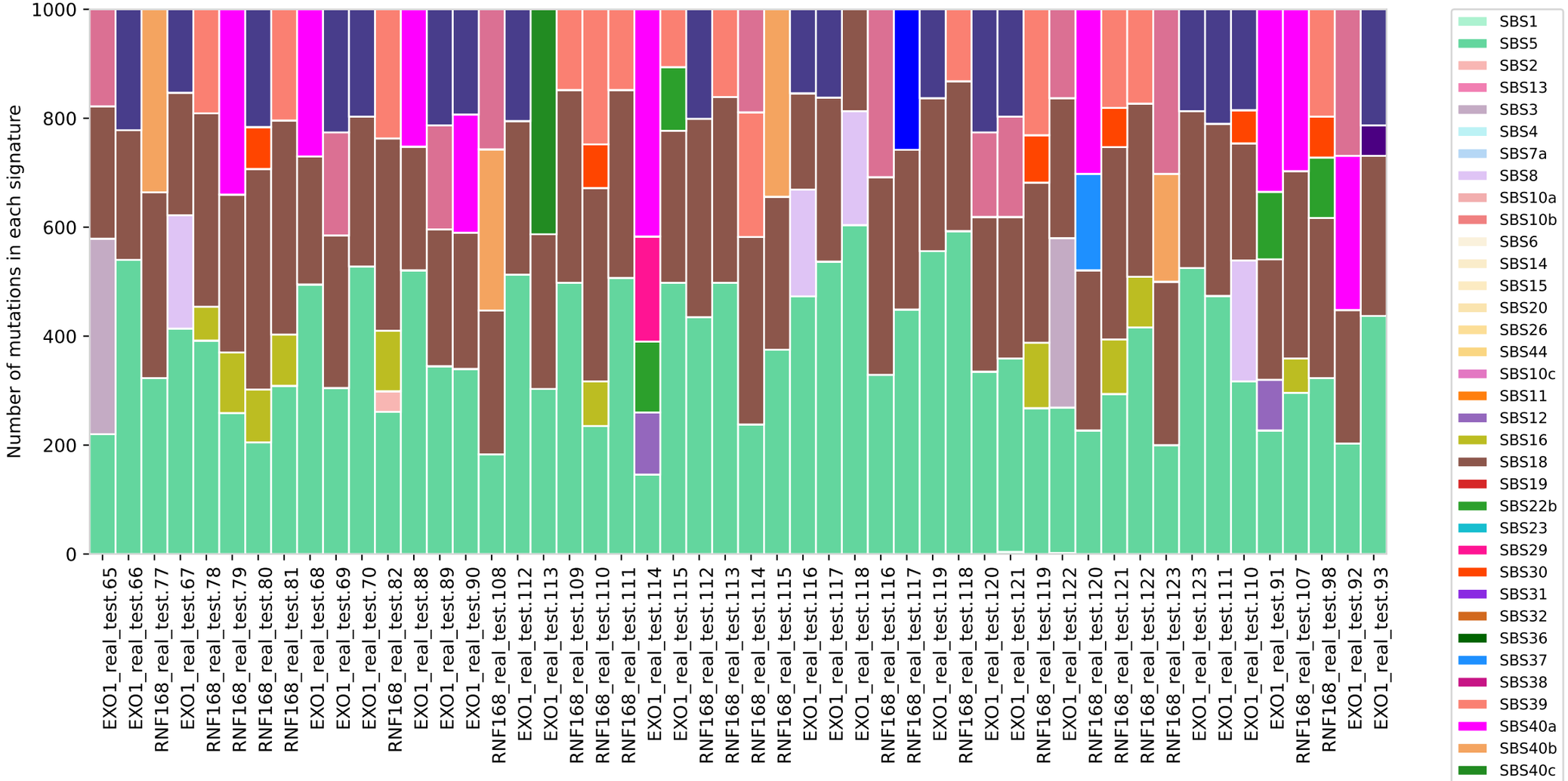
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EXO1_real_test.68
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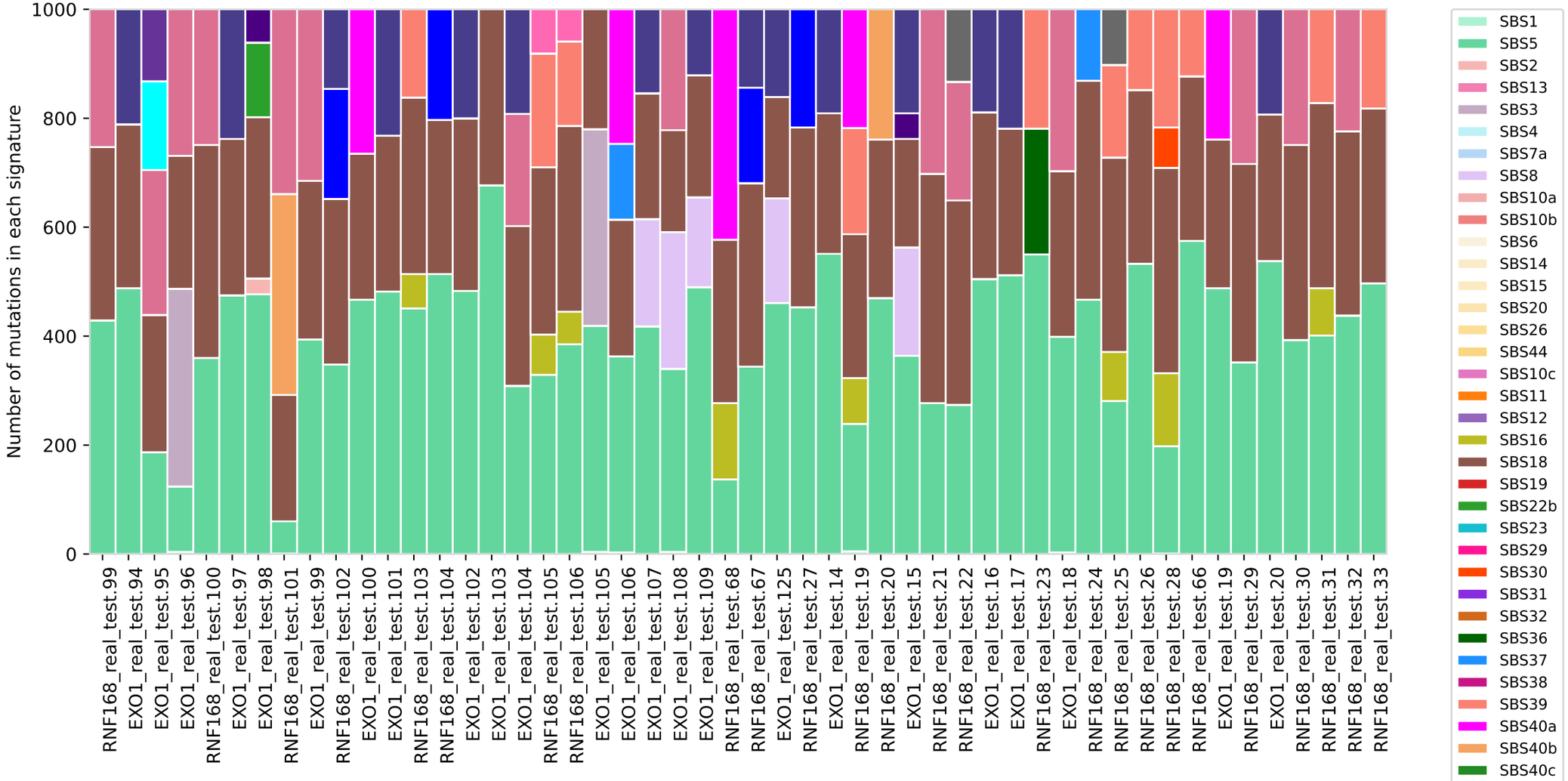
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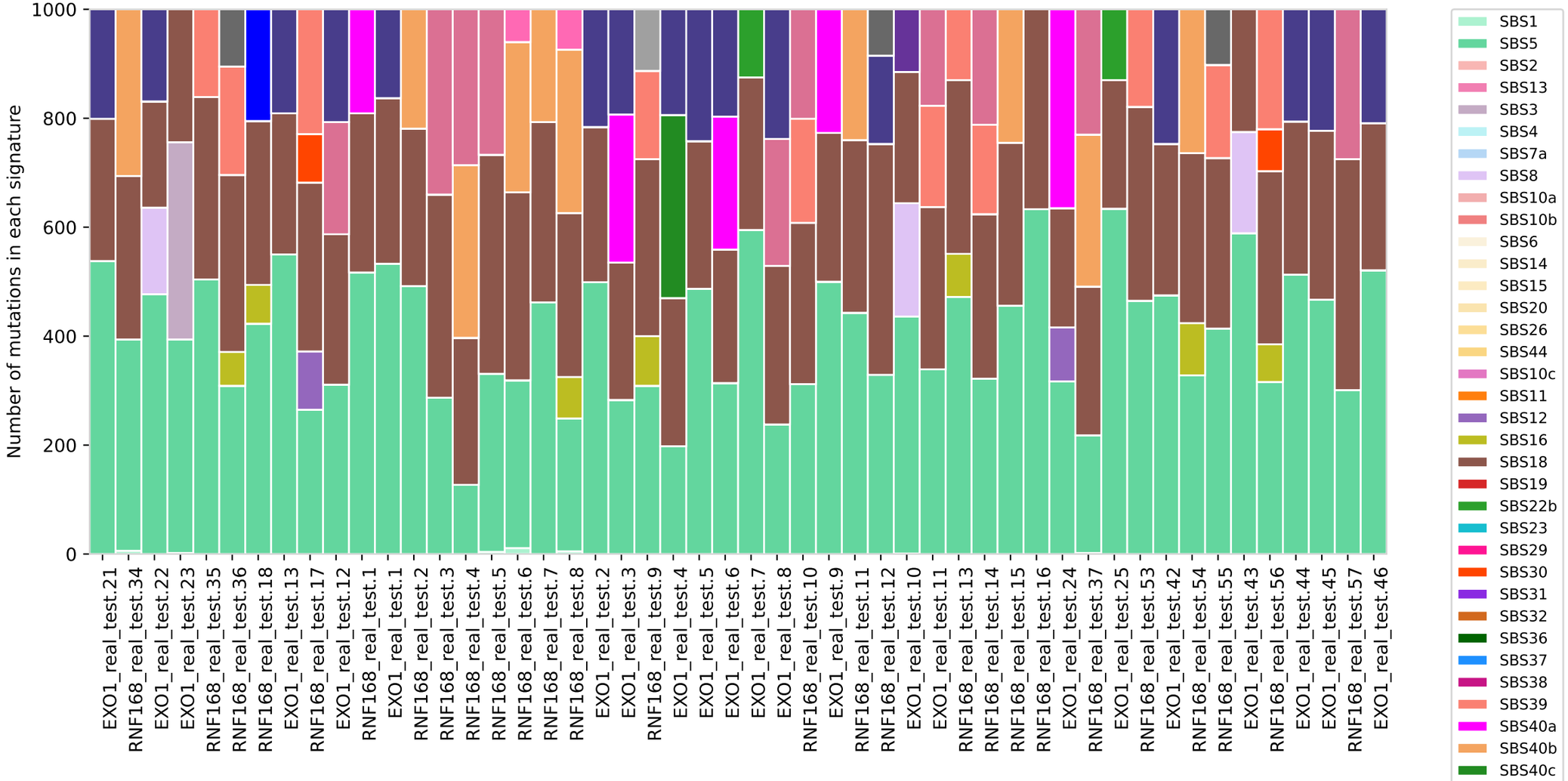
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RNF168_real_test.36
RNF168_real_test.18
EXO1_real_test.13
RNF168_real_test.17
EXO1_real_test.12
RNF168_real_test.1
EXO1_real_test.1
RNF168_real_test.2
RNF168_real_test.3
RNF168_real_test.4
RNF168_real_test.5
RNF168_real_test.6
RNF168_real_test.7
RNF168_real_test.8
EXO1_real_test.2
EXO1_real_test.3
RNF168_real_test.9
EXO1_real_test.4
EXO1_real_test.5
EXO1_real_test.6
EXO1_real_test.7
EXO1_real_test.8
RNF168_real_test.10
EXO1_real_test.9
RNF168_real_test.11
RNF168_real_test.12
EXO1_real_test.10
EXO1_real_test.11
RNF168_real_test.13
RNF168_real_test.14
RNF168_real_test.15
RNF168_real_test.16
EXO1_real_test.24
RNF168_real_test.37
EXO1_real_test.25
RNF168_real_test.53
EXO1_real_test.42
RNF168_real_test.54
RNF168_real_test.55
EXO1_real_test.43
RNF168_real_test.56
EXO1_real_test.44
EXO1_real_test.45
RNF168_real_test.57
EXO1_real_test.46
SBS1
SBS5
SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
SBS6
SBS14
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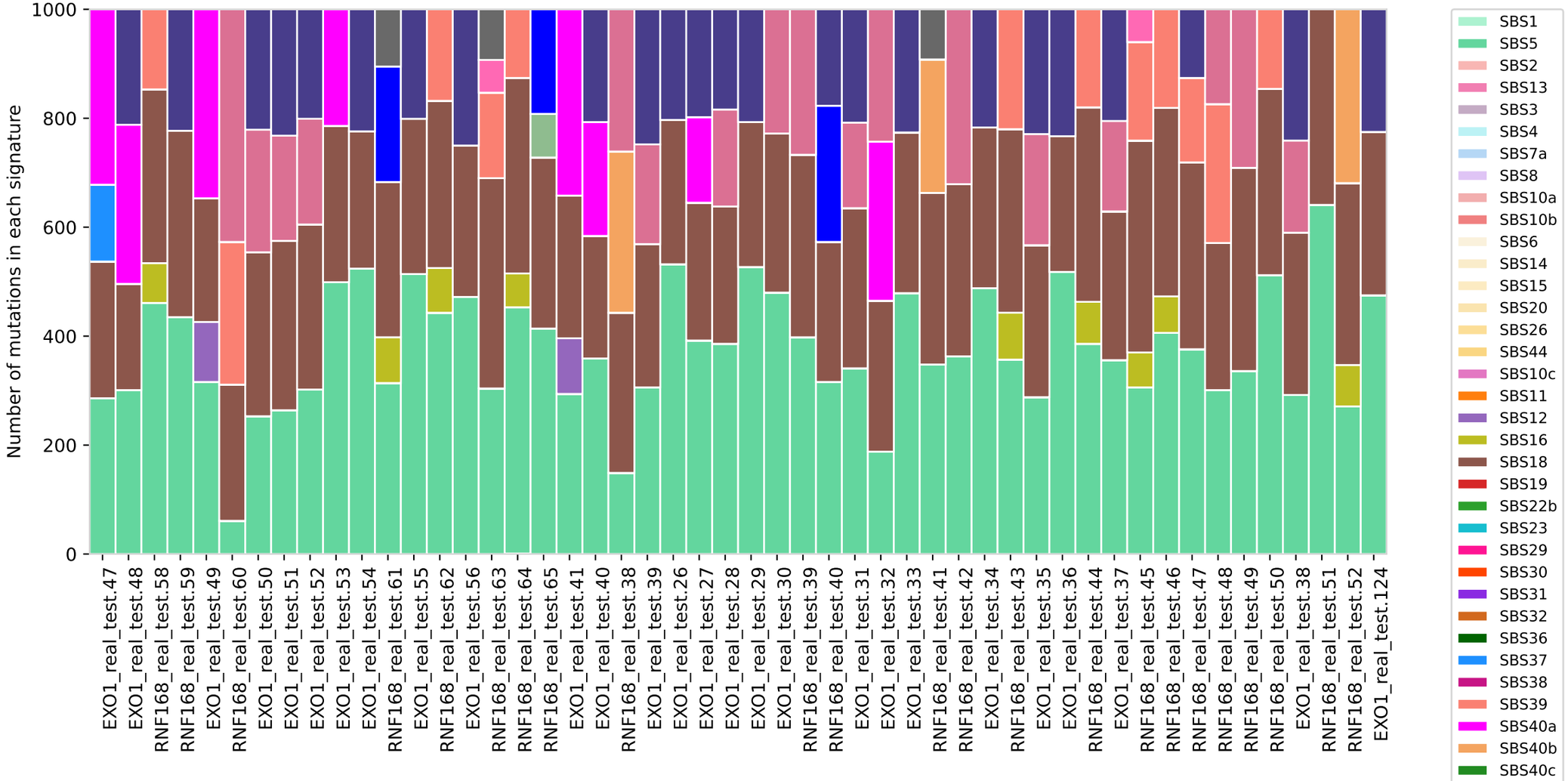
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EXO1_real_test.51
EXO1_real_test.52
EXO1_real_test.53
EXO1_real_test.54
RNF168_real_test.61
EXO1_real_test.55
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EXO1_real_test.56
RNF168_real_test.63
RNF168_real_test.64
RNF168_real_test.65
EXO1_real_test.41
EXO1_real_test.40
RNF168_real_test.38
EXO1_real_test.39
EXO1_real_test.26
EXO1_real_test.27
EXO1_real_test.28
EXO1_real_test.29
EXO1_real_test.30
RNF168_real_test.39
RNF168_real_test.40
EXO1_real_test.31
EXO1_real_test.32
EXO1_real_test.33
RNF168_real_test.41
RNF168_real_test.42
EXO1_real_test.34
RNF168_real_test.43
EXO1_real_test.35
EXO1_real_test.36
RNF168_real_test.44
EXO1_real_test.37
RNF168_real_test.45
RNF168_real_test.46
RNF168_real_test.47
RNF168_real_test.48
RNF168_real_test.49
RNF168_real_test.50
EXO1_real_test.38
RNF168_real_test.51
RNF168_real_test.52
EXO1_real_test.124
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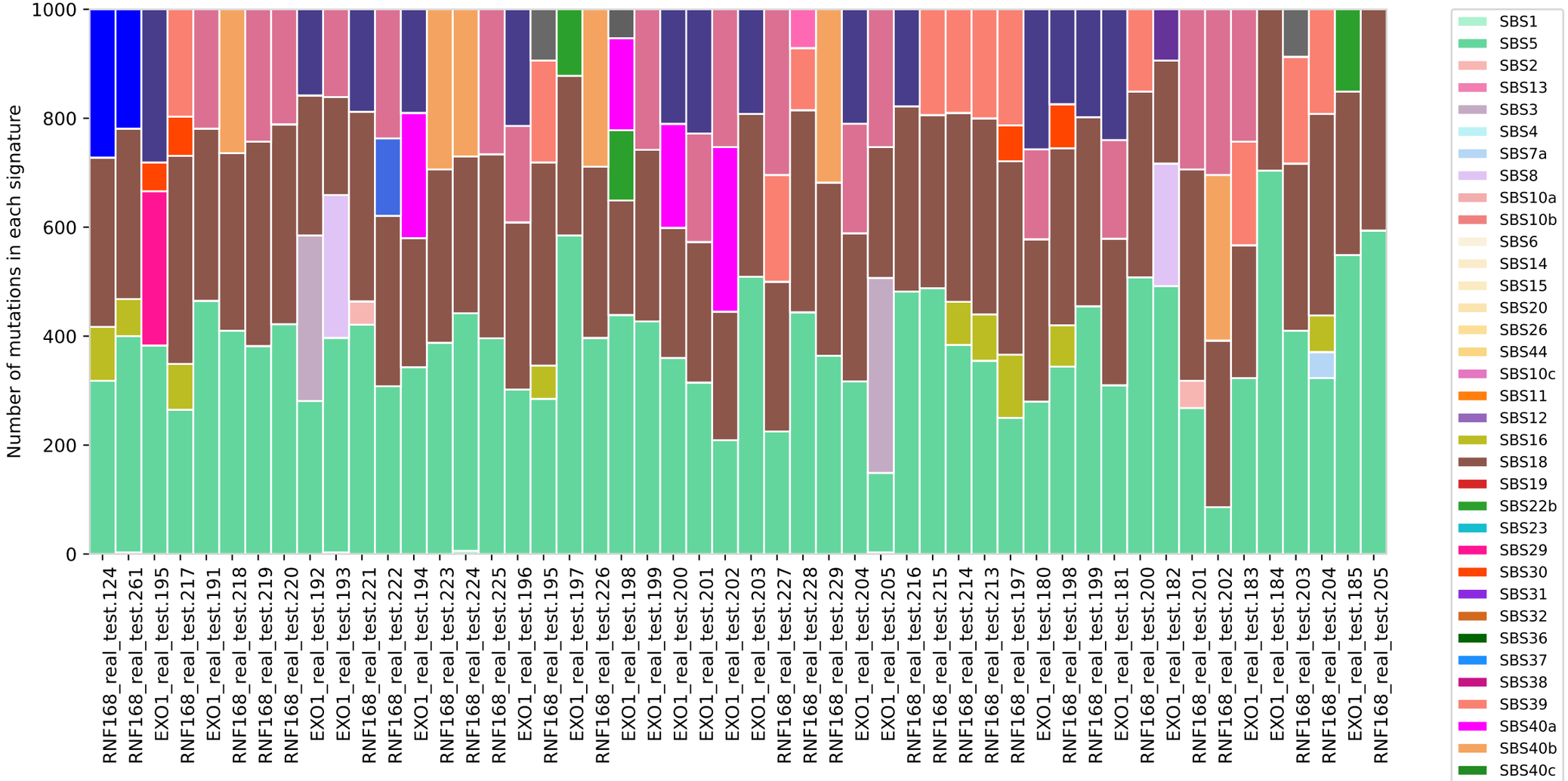
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RNF168_real_test.218
RNF168_real_test.219
RNF168_real_test.220
EXO1_real_test.192
EXO1_real_test.193
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RNF168_real_test.222
EXO1_real_test.194
RNF168_real_test.223
RNF168_real_test.224
RNF168_real_test.225
EXO1_real_test.196
RNF168_real_test.195
EXO1_real_test.197
RNF168_real_test.226
EXO1_real_test.198
EXO1_real_test.199
EXO1_real_test.200
EXO1_real_test.201
EXO1_real_test.202
EXO1_real_test.203
RNF168_real_test.227
RNF168_real_test.228
RNF168_real_test.229
EXO1_real_test.204
EXO1_real_test.205
RNF168_real_test.216
RNF168_real_test.215
RNF168_real_test.214
RNF168_real_test.213
RNF168_real_test.197
EXO1_real_test.180
RNF168_real_test.198
RNF168_real_test.199
EXO1_real_test.181
RNF168_real_test.200
EXO1_real_test.182
RNF168_real_test.201
RNF168_real_test.202
EXO1_real_test.183
EXO1_real_test.184
RNF168_real_test.203
RNF168_real_test.204
EXO1_real_test.185
RNF168_real_test.205
SBS1
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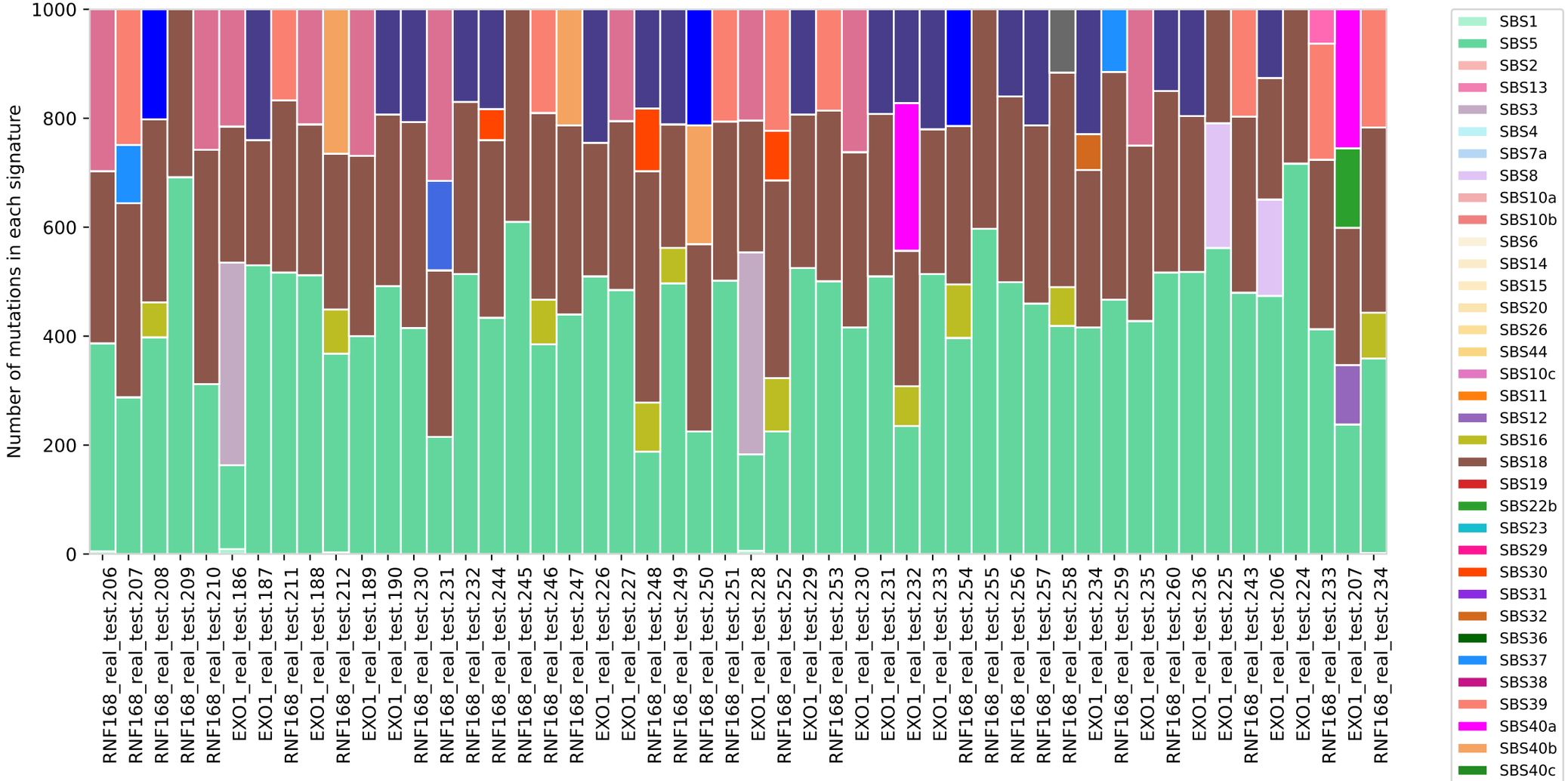
Number of mutations in each signature
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RNF168_real_test.212
EXO1_real_test.189
EXO1_real_test.190
RNF168_real_test.230
RNF168_real_test.231
RNF168_real_test.232
RNF168_real_test.244
RNF168_real_test.245
RNF168_real_test.246
RNF168_real_test.247
EXO1_real_test.226
EXO1_real_test.227
RNF168_real_test.248
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RNF168_real_test.250
RNF168_real_test.251
EXO1_real_test.228
RNF168_real_test.252
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RNF168_real_test.253
EXO1_real_test.230
EXO1_real_test.231
EXO1_real_test.232
EXO1_real_test.233
RNF168_real_test.254
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RNF168_real_test.257
RNF168_real_test.258
EXO1_real_test.234
RNF168_real_test.259
EXO1_real_test.235
RNF168_real_test.260
EXO1_real_test.236
EXO1_real_test.225
RNF168_real_test.243
EXO1_real_test.206
EXO1_real_test.224
RNF168_real_test.233
EXO1_real_test.207
RNF168_real_test.234
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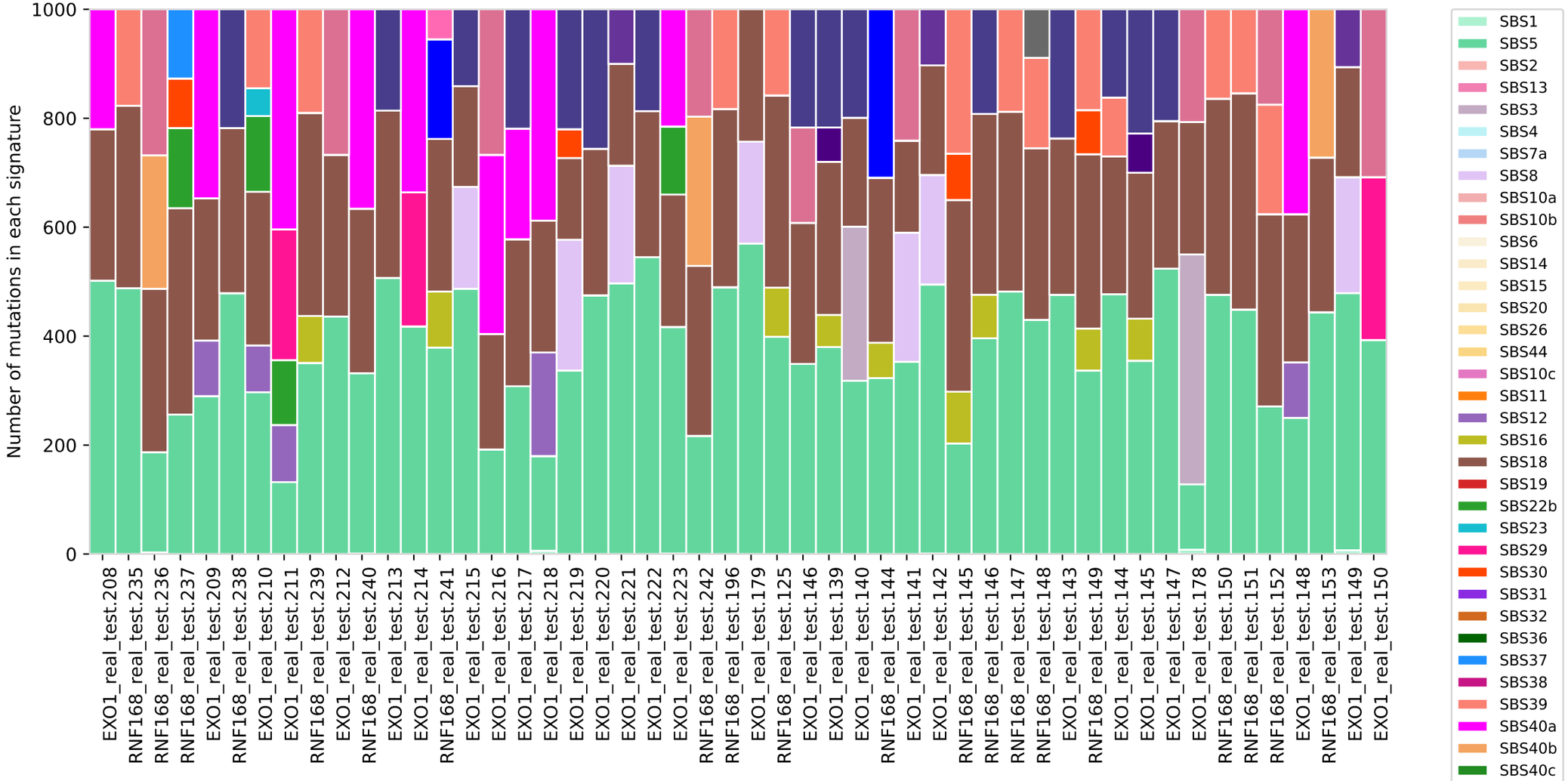
Number of mutations in each signature
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EXO1_real_test.210
EXO1_real_test.211
RNF168_real_test.239
EXO1_real_test.212
RNF168_real_test.240
EXO1_real_test.213
EXO1_real_test.214
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EXO1_real_test.215
EXO1_real_test.216
EXO1_real_test.217
EXO1_real_test.218
EXO1_real_test.219
EXO1_real_test.220
EXO1_real_test.221
EXO1_real_test.222
EXO1_real_test.223
RNF168_real_test.242
RNF168_real_test.196
EXO1_real_test.179
RNF168_real_test.125
EXO1_real_test.146
EXO1_real_test.139
EXO1_real_test.140
RNF168_real_test.144
EXO1_real_test.141
EXO1_real_test.142
RNF168_real_test.145
RNF168_real_test.146
RNF168_real_test.147
RNF168_real_test.148
EXO1_real_test.143
RNF168_real_test.149
EXO1_real_test.144
EXO1_real_test.145
EXO1_real_test.147
EXO1_real_test.178
RNF168_real_test.150
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RNF168_real_test.152
EXO1_real_test.148
RNF168_real_test.153
EXO1_real_test.149
EXO1_real_test.150
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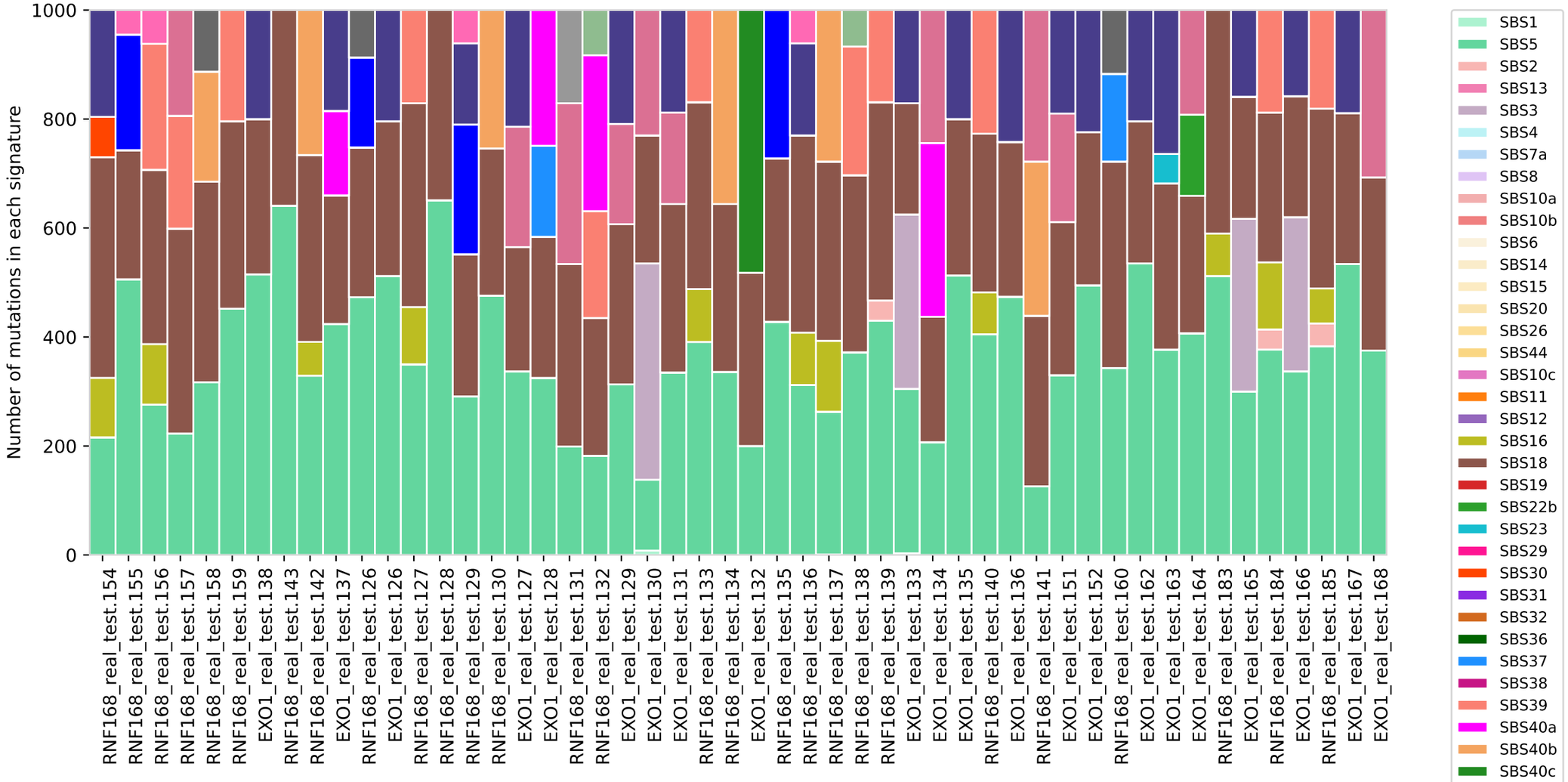
Number of mutations in each signature
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RNF168_real_test.158
RNF168_real_test.159
EXO1_real_test.138
RNF168_real_test.143
RNF168_real_test.142
EXO1_real_test.137
RNF168_real_test.126
EXO1_real_test.126
RNF168_real_test.127
RNF168_real_test.128
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RNF168_real_test.130
EXO1_real_test.127
EXO1_real_test.128
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EXO1_real_test.129
EXO1_real_test.130
EXO1_real_test.131
RNF168_real_test.133
RNF168_real_test.134
EXO1_real_test.132
RNF168_real_test.135
RNF168_real_test.136
RNF168_real_test.137
RNF168_real_test.138
RNF168_real_test.139
EXO1_real_test.133
EXO1_real_test.134
EXO1_real_test.135
RNF168_real_test.140
EXO1_real_test.136
RNF168_real_test.141
EXO1_real_test.151
EXO1_real_test.152
RNF168_real_test.160
EXO1_real_test.162
EXO1_real_test.163
EXO1_real_test.164
RNF168_real_test.183
EXO1_real_test.165
RNF168_real_test.184
EXO1_real_test.166
RNF168_real_test.185
EXO1_real_test.167
EXO1_real_test.168
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SBS10c
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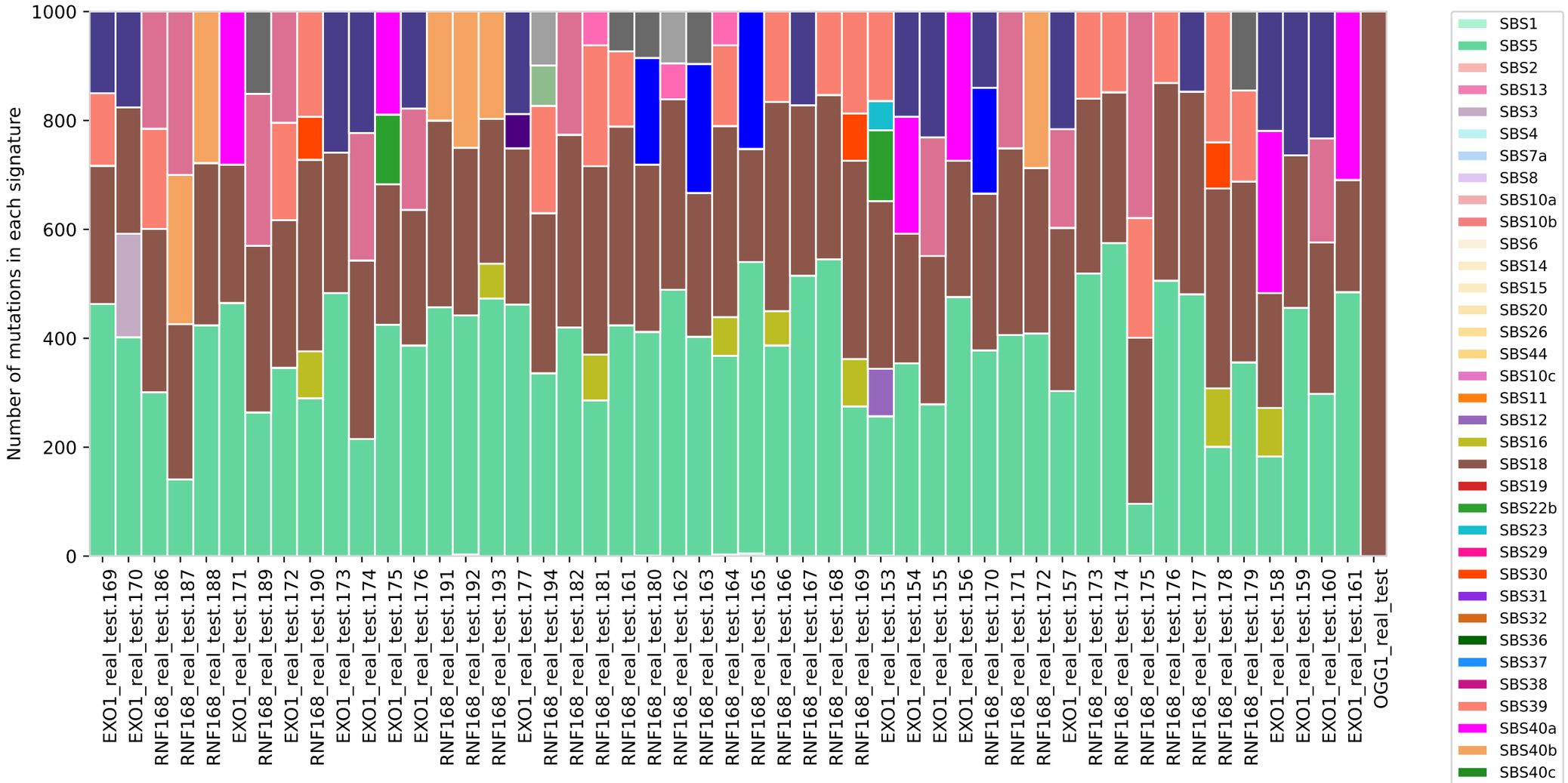
SBS40c


Number of mutations in each signature
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EXO1_real_test.173
EXO1_real_test.174
EXO1_real_test.175
EXO1_real_test.176
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EXO1_real_test.177
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RNF168_real_test.165
RNF168_real_test.166
RNF168_real_test.167
RNF168_real_test.168
RNF168_real_test.169
EXO1_real_test.153
EXO1_real_test.154
EXO1_real_test.155
EXO1_real_test.156
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EXO1_real_test.157
RNF168_real_test.173
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RNF168_real_test.179
EXO1_real_test.158
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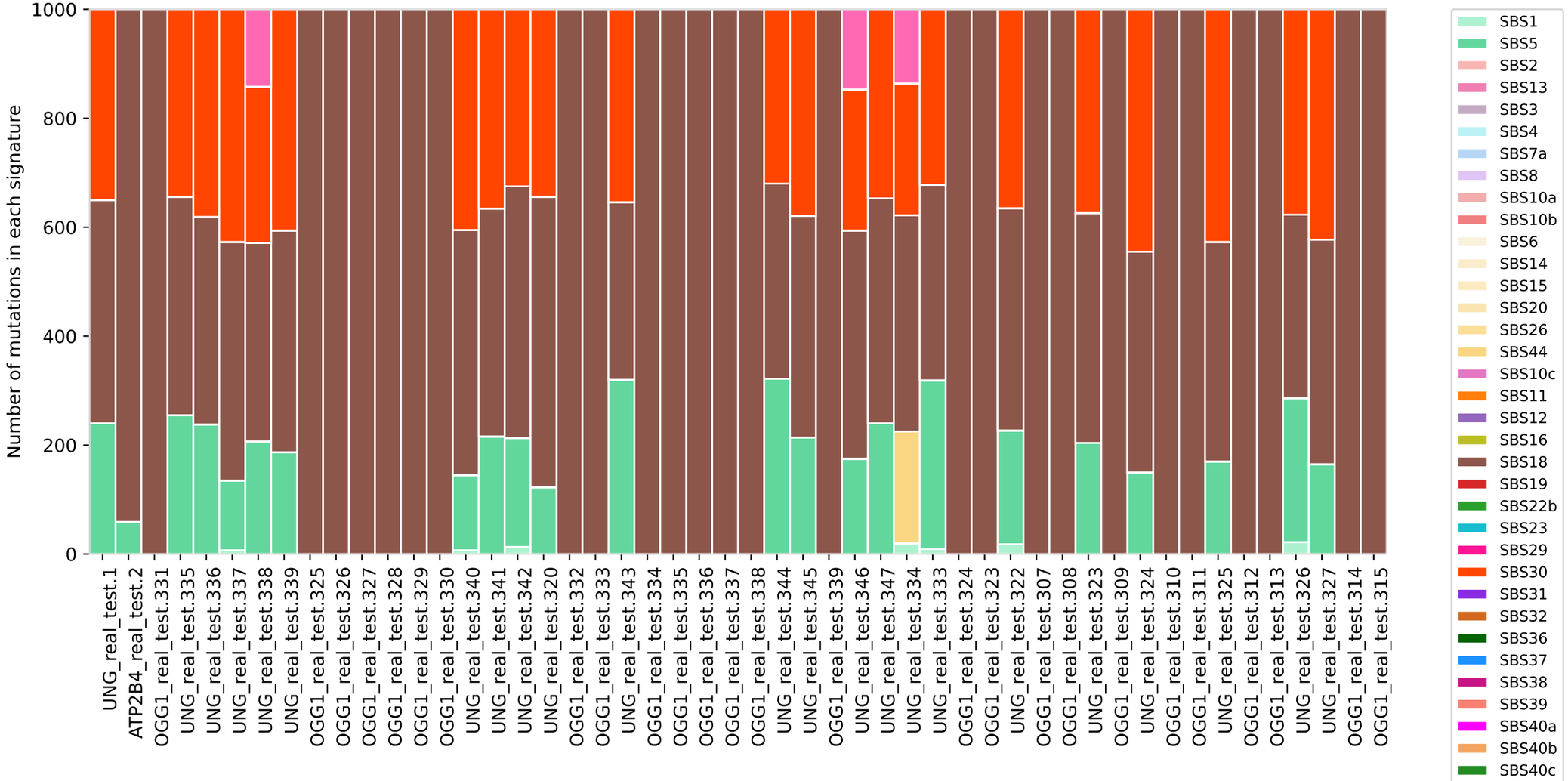
Number of mutations in each signature
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UNG_real_test.337
UNG_real_test.338
UNG_real_test.339
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UNG_real_test.342
UNG_real_test.320
OGG1_real_test.332
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UNG_real_test.343
OGG1_real_test.334
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OGG1_real_test.337
OGG1_real_test.338
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OGG1_real_test.339
UNG_real_test.346
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UNG_real_test.325
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OGG1_real_test.315
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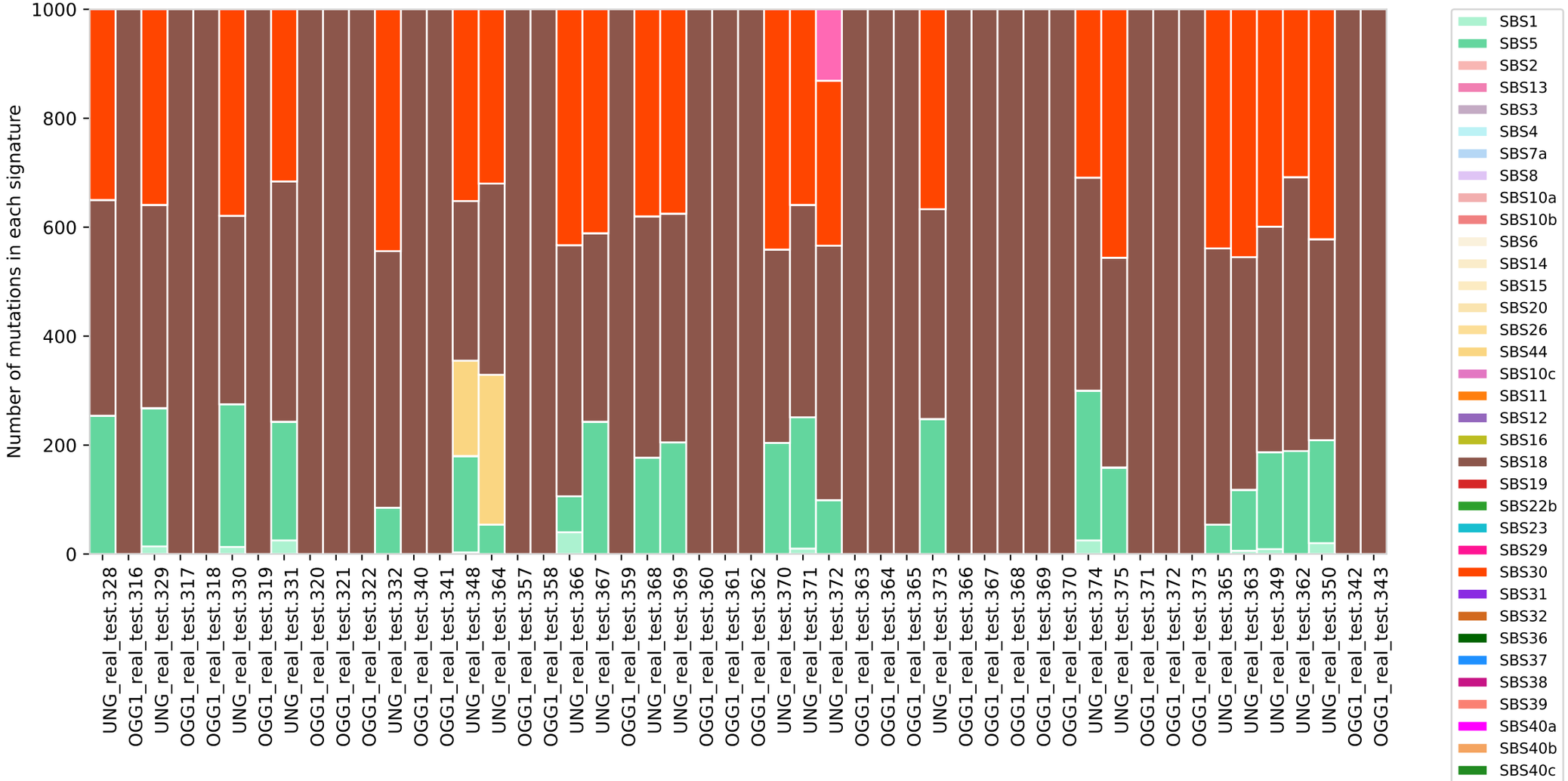
Number of mutations in each signature
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UNG_real_test.368
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UNG_real_test.370
UNG_real_test.371
UNG_real_test.372
OGG1_real_test.363
OGG1_real_test.364
OGG1_real_test.365
UNG_real_test.373
OGG1_real_test.366
OGG1_real_test.367
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OGG1_real_test.370
UNG_real_test.374
UNG_real_test.375
OGG1_real_test.371
OGG1_real_test.372
OGG1_real_test.373
UNG_real_test.365
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UNG_real_test.349
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UNG_real_test.350
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OGG1_real_test.343
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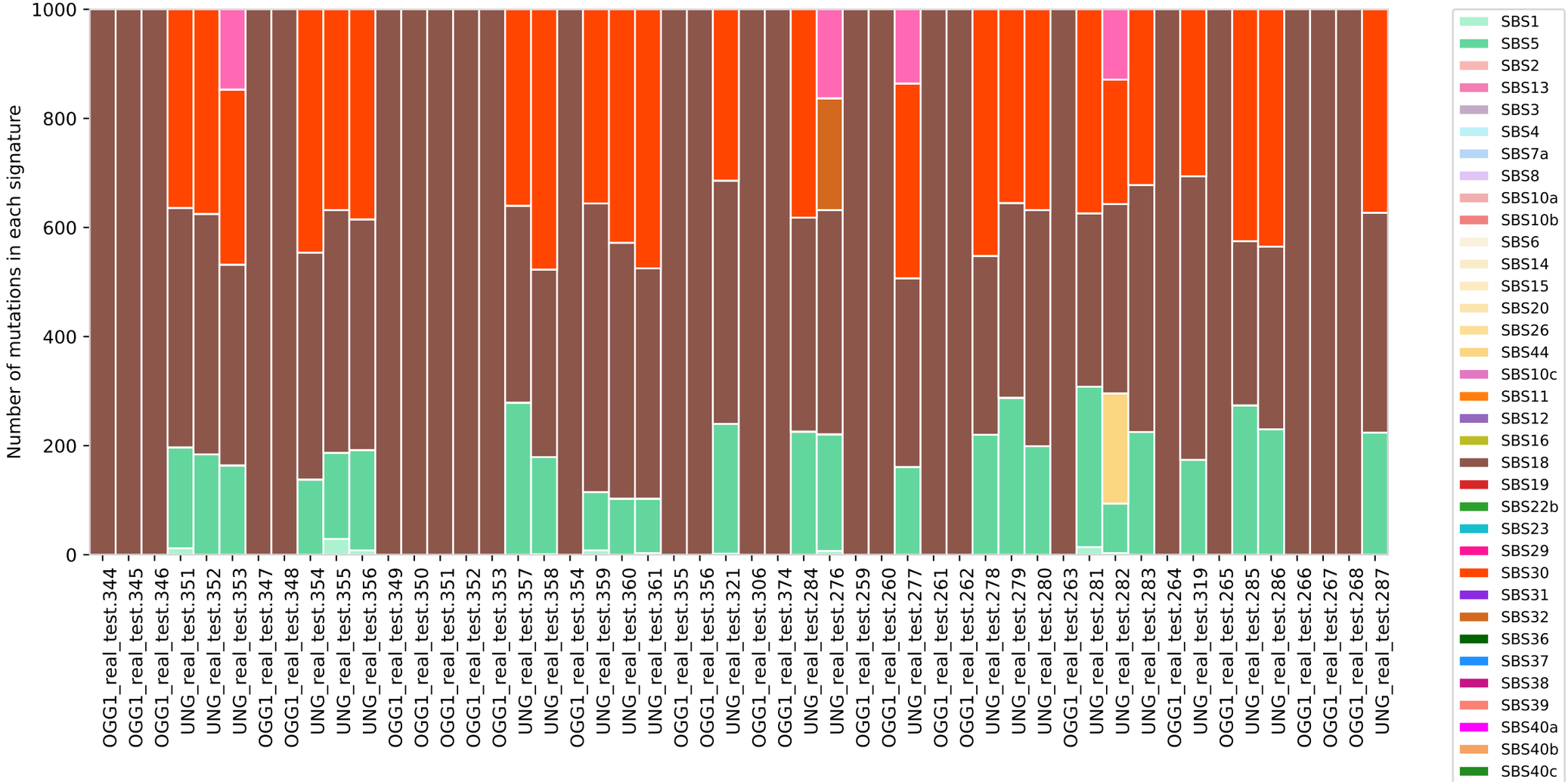
SBS40c


Number of mutations in each signature
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200
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UNG_real_test.352
UNG_real_test.353
OGG1_real_test.347
OGG1_real_test.348
UNG_real_test.354
UNG_real_test.355
UNG_real_test.356
OGG1_real_test.349
OGG1_real_test.350
OGG1_real_test.351
OGG1_real_test.352
OGG1_real_test.353
UNG_real_test.357
UNG_real_test.358
OGG1_real_test.354
UNG_real_test.359
UNG_real_test.360
UNG_real_test.361
OGG1_real_test.355
OGG1_real_test.356
UNG_real_test.321
OGG1_real_test.306
OGG1_real_test.374
UNG_real_test.284
UNG_real_test.276
OGG1_real_test.259
OGG1_real_test.260
UNG_real_test.277
OGG1_real_test.261
OGG1_real_test.262
UNG_real_test.278
UNG_real_test.279
UNG_real_test.280
OGG1_real_test.263
UNG_real_test.281
UNG_real_test.282
UNG_real_test.283
OGG1_real_test.264
UNG_real_test.319
OGG1_real_test.265
UNG_real_test.285
UNG_real_test.286
OGG1_real_test.266
OGG1_real_test.267
OGG1_real_test.268
UNG_real_test.287
SBS1
SBS5
SBS2
SBS13
SBS3
SBS4
SBS7a
SBS8
SBS10a
SBS10b
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SBS44
SBS10c
SBS11
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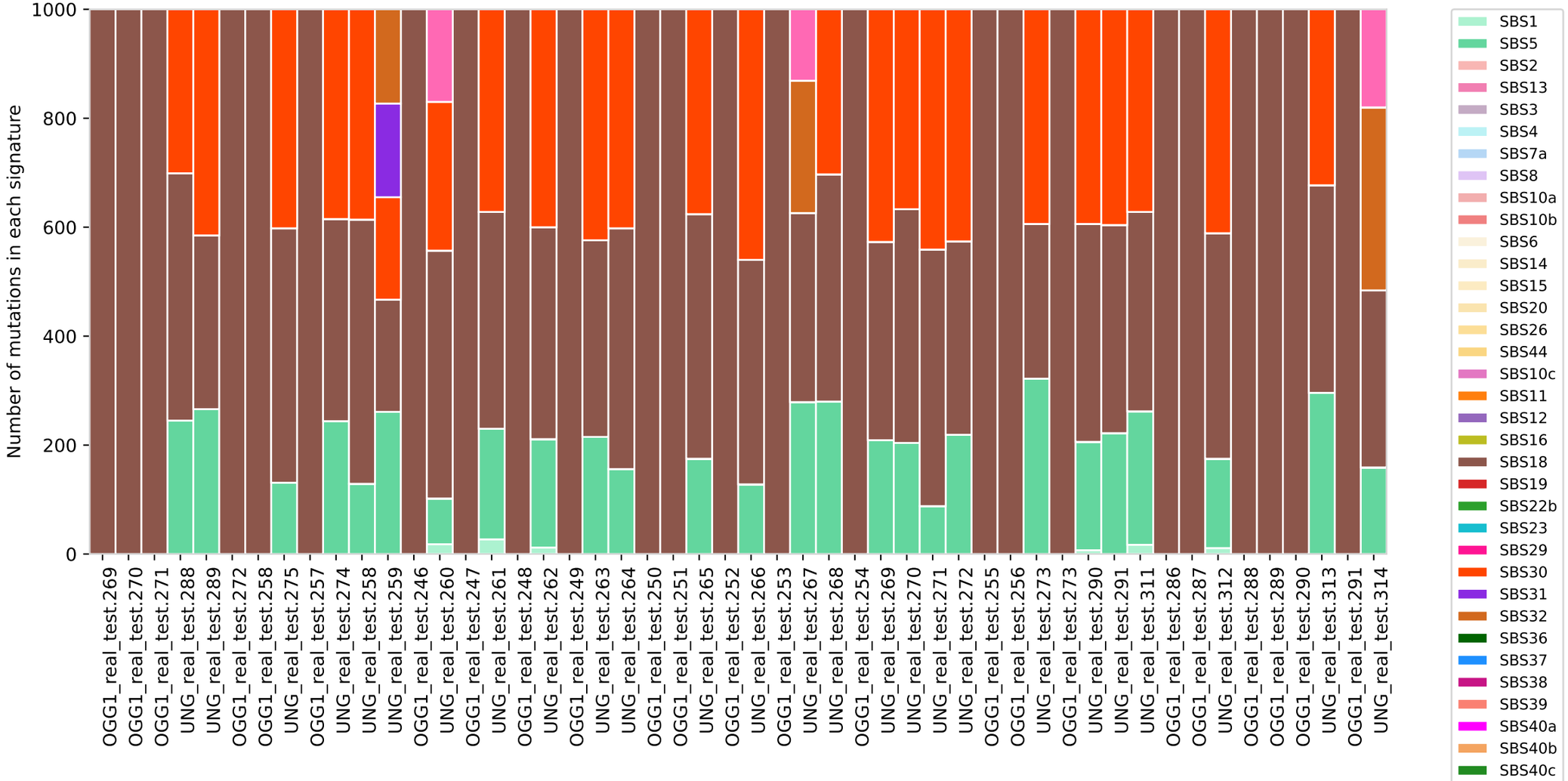
Number of mutations in each signature
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UNG_real_test.289
OGG1_real_test.272
OGG1_real_test.258
UNG_real_test.275
OGG1_real_test.257
UNG_real_test.274
UNG_real_test.258
UNG_real_test.259
OGG1_real_test.246
UNG_real_test.260
OGG1_real_test.247
UNG_real_test.261
OGG1_real_test.248
UNG_real_test.262
OGG1_real_test.249
UNG_real_test.263
UNG_real_test.264
OGG1_real_test.250
OGG1_real_test.251
UNG_real_test.265
OGG1_real_test.252
UNG_real_test.266
OGG1_real_test.253
UNG_real_test.267
UNG_real_test.268
OGG1_real_test.254
UNG_real_test.269
UNG_real_test.270
UNG_real_test.271
UNG_real_test.272
OGG1_real_test.255
OGG1_real_test.256
UNG_real_test.273
OGG1_real_test.273
UNG_real_test.290
UNG_real_test.291
UNG_real_test.311
OGG1_real_test.286
OGG1_real_test.287
UNG_real_test.312
OGG1_real_test.288
OGG1_real_test.289
OGG1_real_test.290
UNG_real_test.313
OGG1_real_test.291
UNG_real_test.314
SBS1
SBS5
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SBS13
SBS3
SBS4
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SBS8
SBS10a
SBS10b
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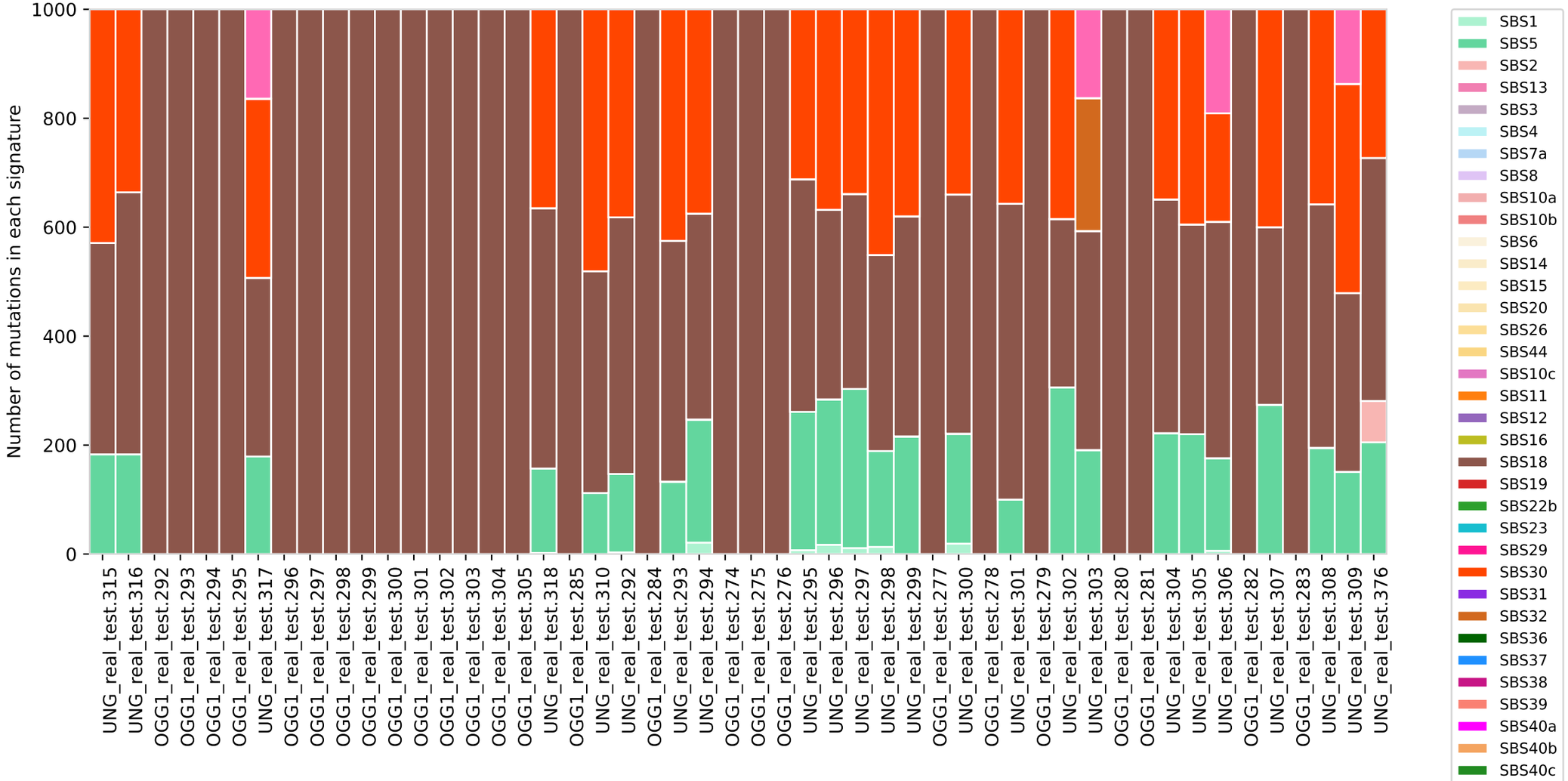
Number of mutations in each signature
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OGG1_real_test.294
OGG1_real_test.295
UNG_real_test.317
OGG1_real_test.296
OGG1_real_test.297
OGG1_real_test.298
OGG1_real_test.299
OGG1_real_test.300
OGG1_real_test.301
OGG1_real_test.302
OGG1_real_test.303
OGG1_real_test.304
OGG1_real_test.305
UNG_real_test.318
OGG1_real_test.285
UNG_real_test.310
UNG_real_test.292
OGG1_real_test.284
UNG_real_test.293
UNG_real_test.294
OGG1_real_test.274
OGG1_real_test.275
OGG1_real_test.276
UNG_real_test.295
UNG_real_test.296
UNG_real_test.297
UNG_real_test.298
UNG_real_test.299
OGG1_real_test.277
UNG_real_test.300
OGG1_real_test.278
UNG_real_test.301
OGG1_real_test.279
UNG_real_test.302
UNG_real_test.303
OGG1_real_test.280
OGG1_real_test.281
UNG_real_test.304
UNG_real_test.305
UNG_real_test.306
OGG1_real_test.282
UNG_real_test.307
OGG1_real_test.283
UNG_real_test.308
UNG_real_test.309
UNG_real_test.376
SBS1
SBS5
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SBS4
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SBS10b
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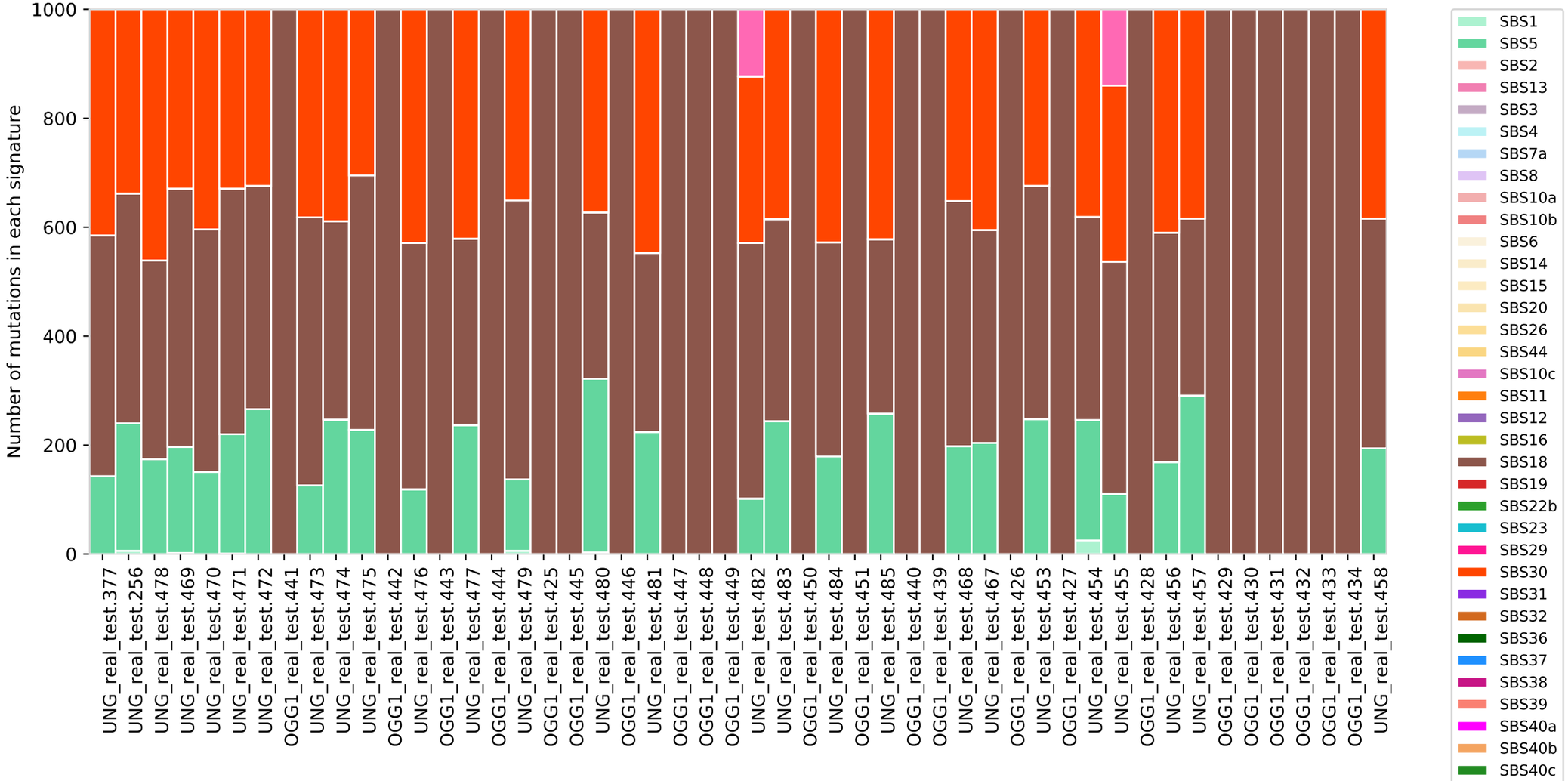
Number of mutations in each signature
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UNG_real_test.470
UNG_real_test.471
UNG_real_test.472
OGG1_real_test.441
UNG_real_test.473
UNG_real_test.474
UNG_real_test.475
OGG1_real_test.442
UNG_real_test.476
OGG1_real_test.443
UNG_real_test.477
OGG1_real_test.444
UNG_real_test.479
OGG1_real_test.425
OGG1_real_test.445
UNG_real_test.480
OGG1_real_test.446
UNG_real_test.481
OGG1_real_test.447
OGG1_real_test.448
OGG1_real_test.449
UNG_real_test.482
UNG_real_test.483
OGG1_real_test.450
UNG_real_test.484
OGG1_real_test.451
UNG_real_test.485
OGG1_real_test.440
OGG1_real_test.439
UNG_real_test.468
UNG_real_test.467
OGG1_real_test.426
UNG_real_test.453
OGG1_real_test.427
UNG_real_test.454
UNG_real_test.455
OGG1_real_test.428
UNG_real_test.456
UNG_real_test.457
OGG1_real_test.429
OGG1_real_test.430
OGG1_real_test.431
OGG1_real_test.432
OGG1_real_test.433
OGG1_real_test.434
UNG_real_test.458
SBS1
SBS5
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SBS4
SBS7a
SBS8
SBS10a
SBS10b
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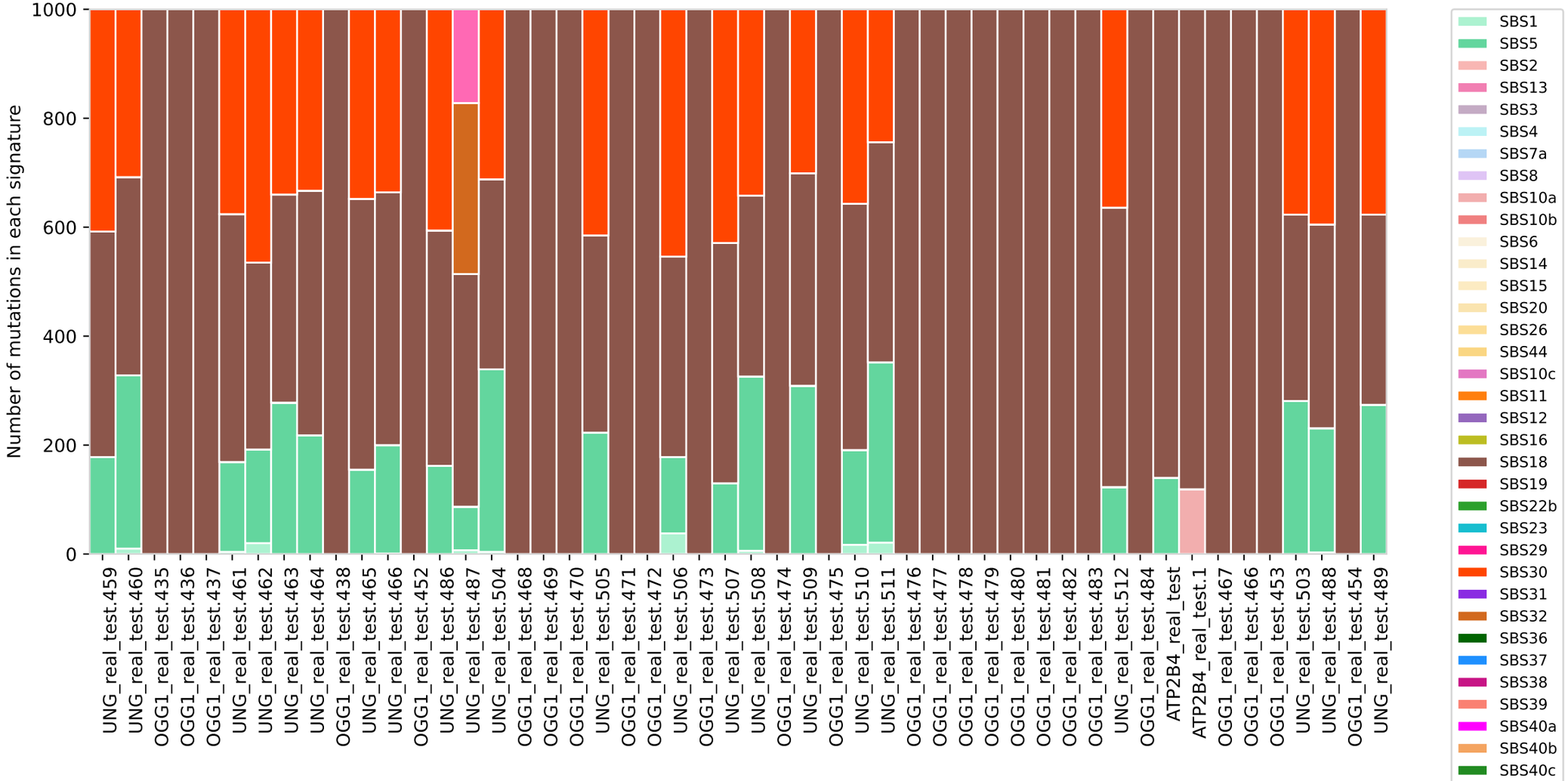
Number of mutations in each signature
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OGG1_real_test.437
UNG_real_test.461
UNG_real_test.462
UNG_real_test.463
UNG_real_test.464
OGG1_real_test.438
UNG_real_test.465
UNG_real_test.466
OGG1_real_test.452
UNG_real_test.486
UNG_real_test.487
UNG_real_test.504
OGG1_real_test.468
OGG1_real_test.469
OGG1_real_test.470
UNG_real_test.505
OGG1_real_test.471
OGG1_real_test.472
UNG_real_test.506
OGG1_real_test.473
UNG_real_test.507
UNG_real_test.508
OGG1_real_test.474
UNG_real_test.509
OGG1_real_test.475
UNG_real_test.510
UNG_real_test.511
OGG1_real_test.476
OGG1_real_test.477
OGG1_real_test.478
OGG1_real_test.479
OGG1_real_test.480
OGG1_real_test.481
OGG1_real_test.482
OGG1_real_test.483
UNG_real_test.512
OGG1_real_test.484
ATP2B4_real_test
ATP2B4_real_test.1
OGG1_real_test.467
OGG1_real_test.466
OGG1_real_test.453
UNG_real_test.503
UNG_real_test.488
OGG1_real_test.454
UNG_real_test.489
SBS1
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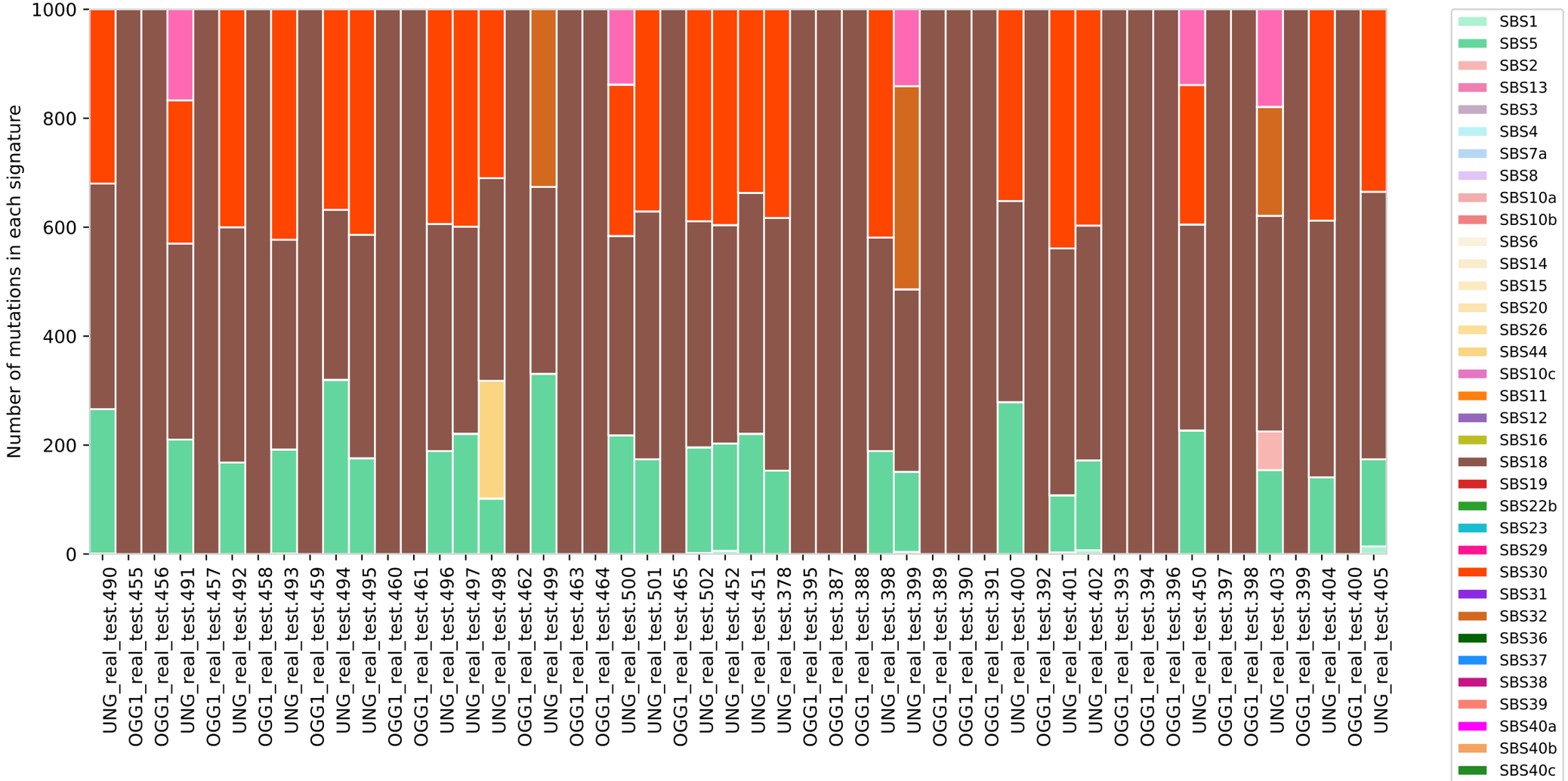
Number of mutations in each signature
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UNG_real_test.491
OGG1_real_test.457
UNG_real_test.492
OGG1_real_test.458
UNG_real_test.493
OGG1_real_test.459
UNG_real_test.494
UNG_real_test.495
OGG1_real_test.460
OGG1_real_test.461
UNG_real_test.496
UNG_real_test.497
UNG_real_test.498
OGG1_real_test.462
UNG_real_test.499
OGG1_real_test.463
OGG1_real_test.464
UNG_real_test.500
UNG_real_test.501
OGG1_real_test.465
UNG_real_test.502
UNG_real_test.452
UNG_real_test.451
UNG_real_test.378
OGG1_real_test.395
OGG1_real_test.387
OGG1_real_test.388
UNG_real_test.398
UNG_real_test.399
OGG1_real_test.389
OGG1_real_test.390
OGG1_real_test.391
UNG_real_test.400
OGG1_real_test.392
UNG_real_test.401
UNG_real_test.402
OGG1_real_test.393
OGG1_real_test.394
OGG1_real_test.396
UNG_real_test.450
OGG1_real_test.397
OGG1_real_test.398
UNG_real_test.403
OGG1_real_test.399
UNG_real_test.404
OGG1_real_test.400
UNG_real_test.405
SBS1
SBS5
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SBS7a
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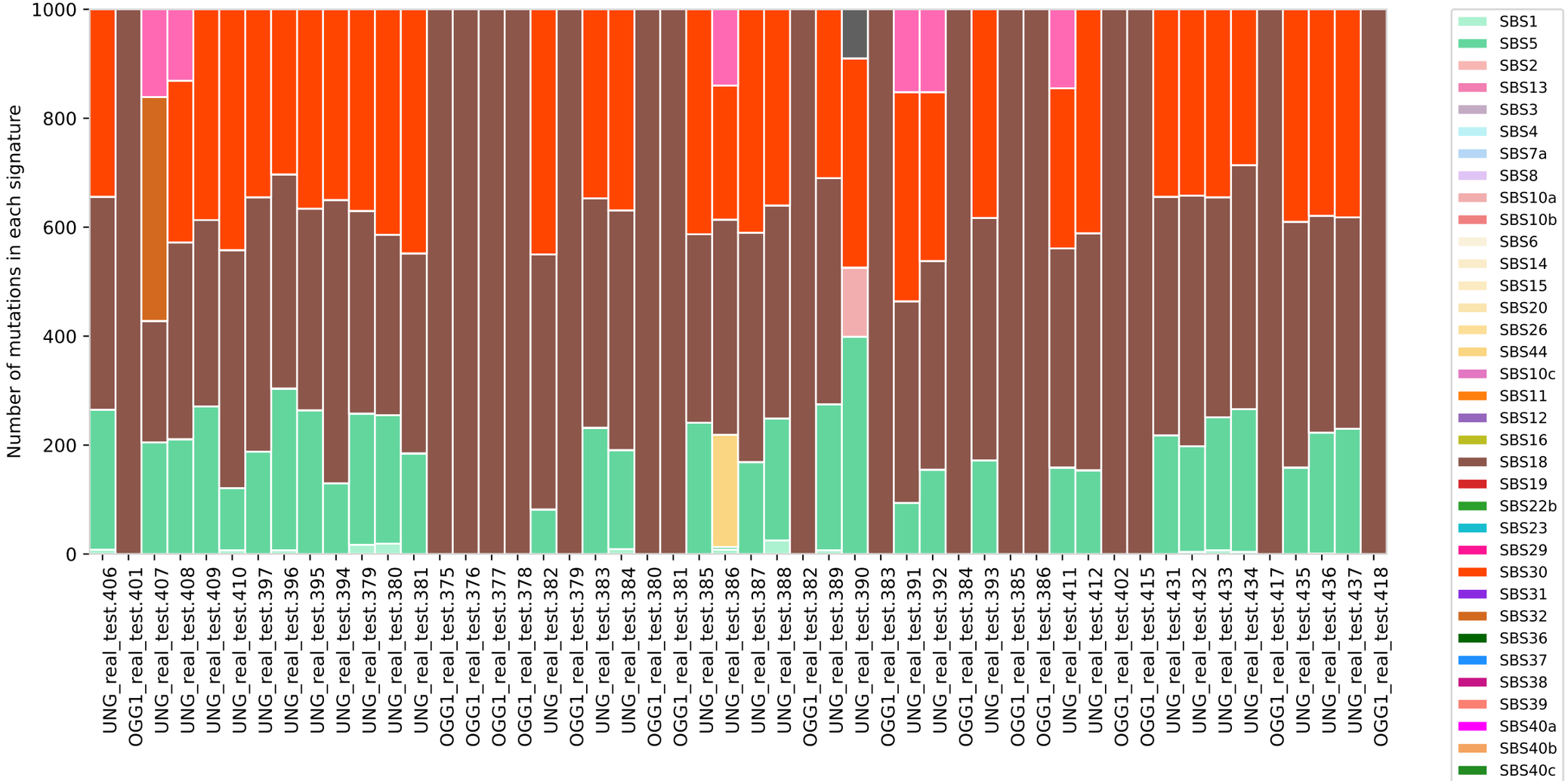
Number of mutations in each signature
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200
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UNG_real_test.408
UNG_real_test.409
UNG_real_test.410
UNG_real_test.397
UNG_real_test.396
UNG_real_test.395
UNG_real_test.394
UNG_real_test.379
UNG_real_test.380
UNG_real_test.381
OGG1_real_test.375
OGG1_real_test.376
OGG1_real_test.377
OGG1_real_test.378
UNG_real_test.382
OGG1_real_test.379
UNG_real_test.383
UNG_real_test.384
OGG1_real_test.380
OGG1_real_test.381
UNG_real_test.385
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UNG_real_test.388
OGG1_real_test.382
UNG_real_test.389
UNG_real_test.390
OGG1_real_test.383
UNG_real_test.391
UNG_real_test.392
OGG1_real_test.384
UNG_real_test.393
OGG1_real_test.385
OGG1_real_test.386
UNG_real_test.411
UNG_real_test.412
OGG1_real_test.402
OGG1_real_test.415
UNG_real_test.431
UNG_real_test.432
UNG_real_test.433
UNG_real_test.434
OGG1_real_test.417
UNG_real_test.435
UNG_real_test.436
UNG_real_test.437
OGG1_real_test.418
SBS1
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SBS14
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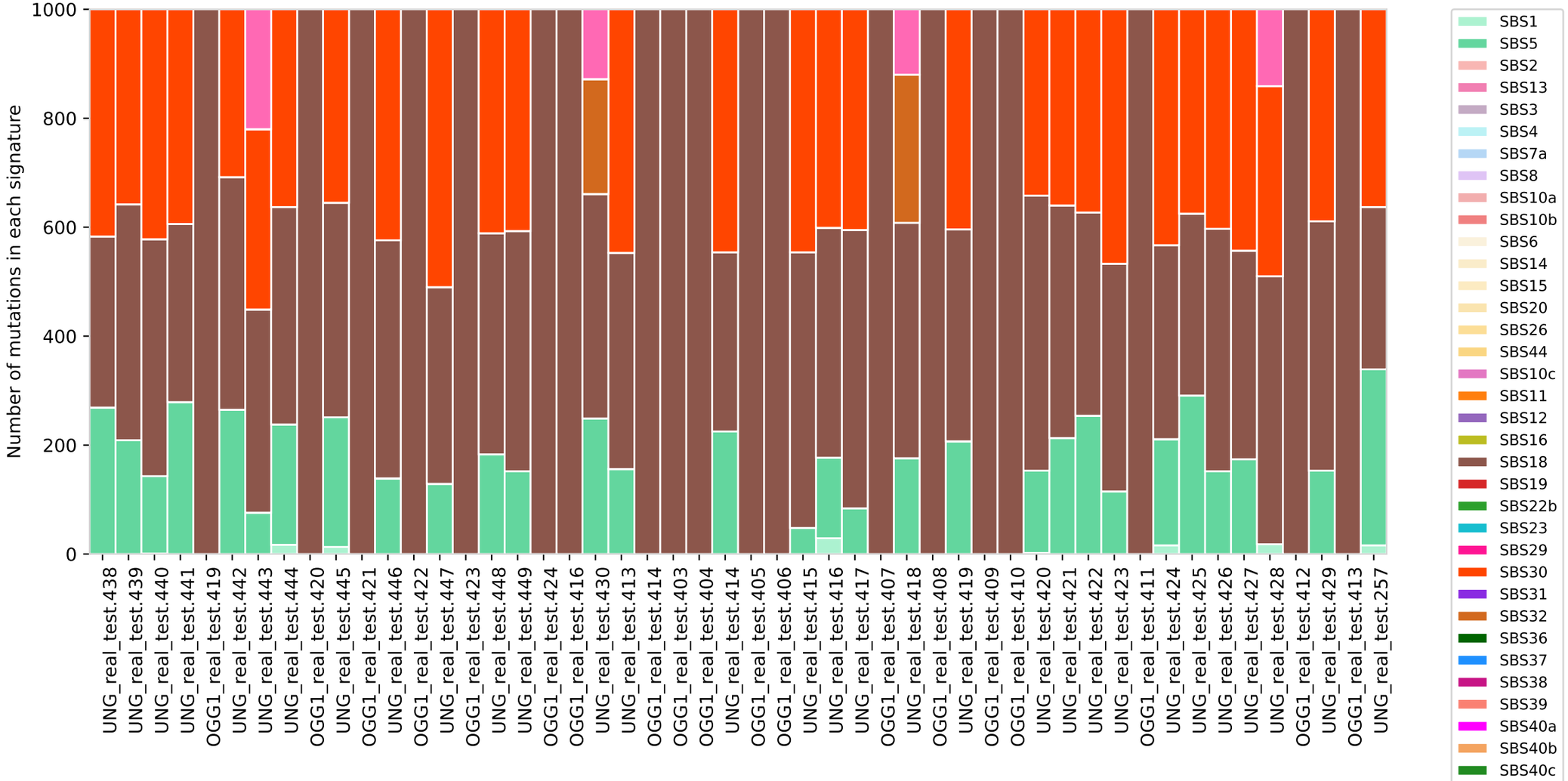
Number of mutations in each signature
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200
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OGG1_real_test.419
UNG_real_test.442
UNG_real_test.443
UNG_real_test.444
OGG1_real_test.420
UNG_real_test.445
OGG1_real_test.421
UNG_real_test.446
OGG1_real_test.422
OGG1_real_test.447
OGG1_real_test.423
UNG_real_test.448
UNG_real_test.449
OGG1_real_test.424
OGG1_real_test.416
UNG_real_test.430
UNG_real_test.413
OGG1_real_test.414
OGG1_real_test.403
OGG1_real_test.404
UNG_real_test.414
OGG1_real_test.405
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UNG_real_test.415
UNG_real_test.416
UNG_real_test.417
OGG1_real_test.407
UNG_real_test.418
OGG1_real_test.408
UNG_real_test.419
OGG1_real_test.409
OGG1_real_test.410
UNG_real_test.420
UNG_real_test.421
UNG_real_test.422
UNG_real_test.423
OGG1_real_test.411
UNG_real_test.424
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UNG_real_test.426
UNG_real_test.427
UNG_real_test.428
OGG1_real_test.412
UNG_real_test.429
OGG1_real_test.413
UNG_real_test.257
SBS1
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SBS10a
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SBS6
SBS14
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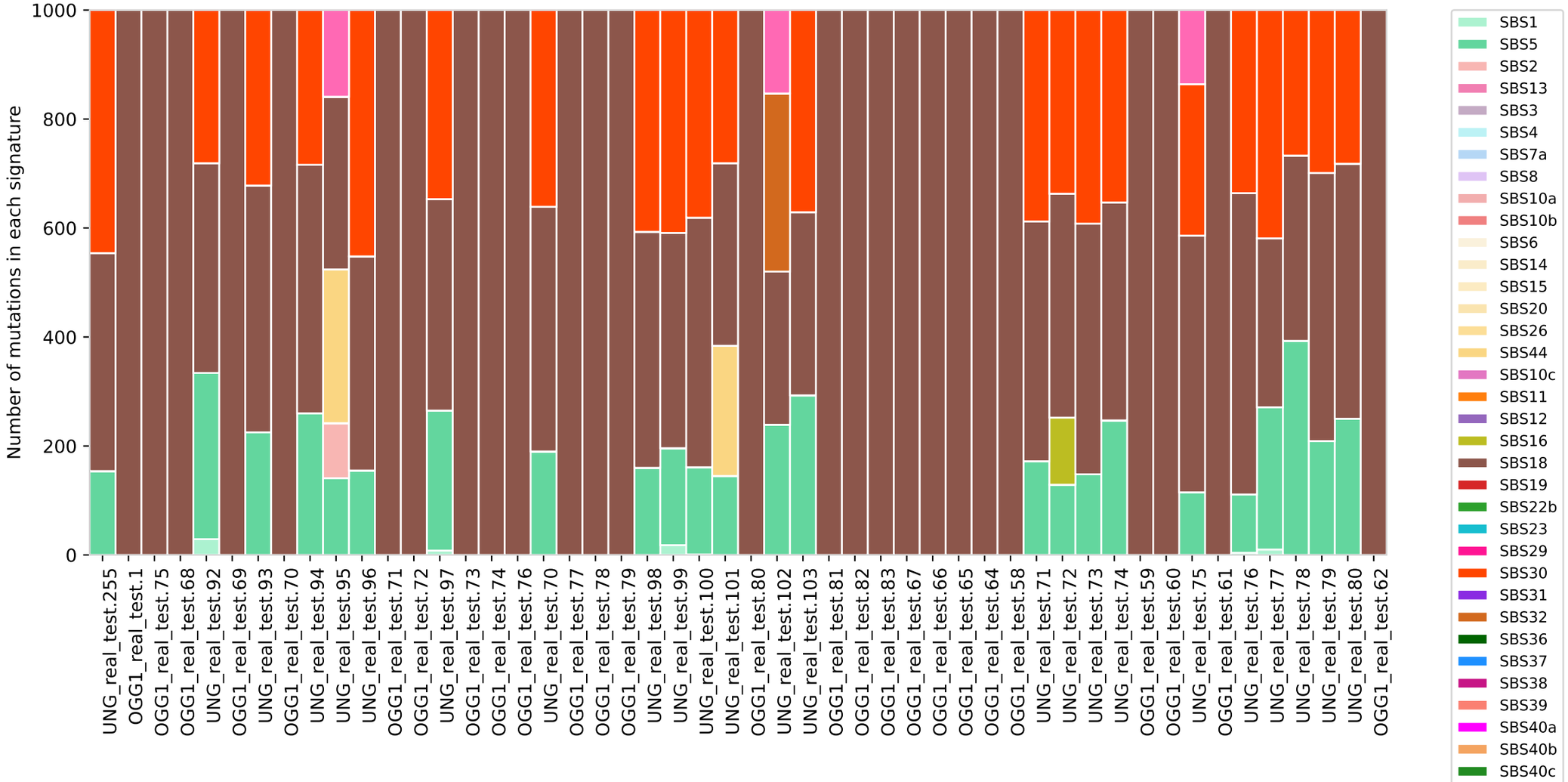
Number of mutations in each signature
1000
800
600
400
200
0
UNG_real_test.255
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OGG1_real_test.69
UNG_real_test.93
OGG1_real_test.70
UNG_real_test.94
UNG_real_test.95
UNG_real_test.96
OGG1_real_test.71
OGG1_real_test.72
UNG_real_test.97
OGG1_real_test.73
OGG1_real_test.74
OGG1_real_test.76
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OGG1_real_test.78
OGG1_real_test.79
UNG_real_test.98
UNG_real_test.99
UNG_real_test.100
UNG_real_test.101
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OGG1_real_test.65
OGG1_real_test.64
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UNG_real_test.71
UNG_real_test.72
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UNG_real_test.74
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OGG1_real_test.61
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UNG_real_test.77
UNG_real_test.78
UNG_real_test.79
UNG_real_test.80
OGG1_real_test.62
SBS1
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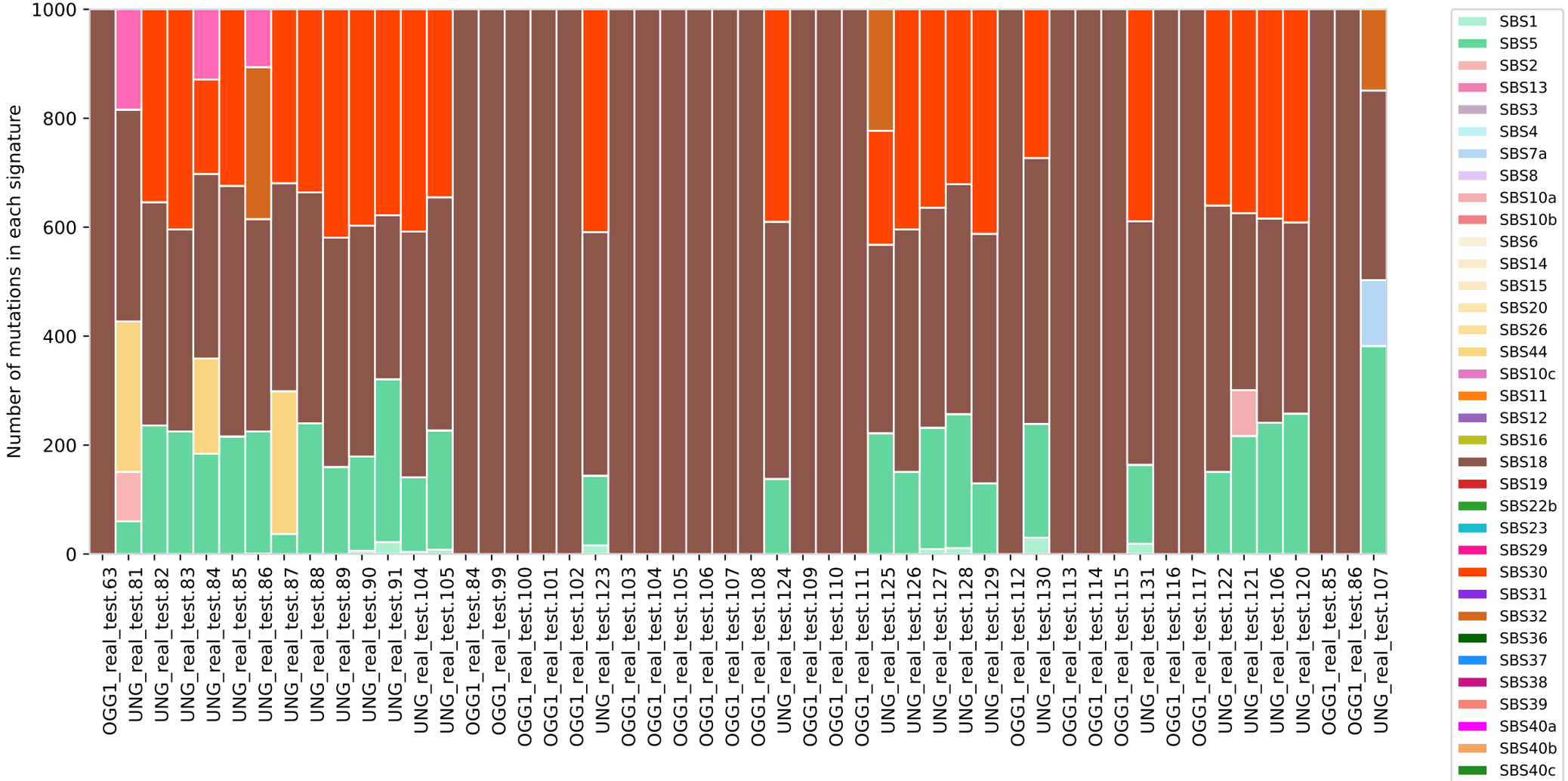
Number of mutations in each signature
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OGG1_real_test.63
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UNG_real_test.84
UNG_real_test.85
UNG_real_test.86
UNG_real_test.87
UNG_real_test.88
UNG_real_test.89
UNG_real_test.90
UNG_real_test.91
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OGG1_real_test.84
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OGG1_real_test.107
OGG1_real_test.108
UNG_real_test.124
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OGG1_real_test.110
OGG1_real_test.111
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UNG_real_test.126
UNG_real_test.127
UNG_real_test.128
UNG_real_test.129
OGG1_real_test.112
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OGG1_real_test.113
OGG1_real_test.114
OGG1_real_test.115
UNG_real_test.131
OGG1_real_test.116
OGG1_real_test.117
UNG_real_test.122
UNG_real_test.121
UNG_real_test.106
UNG_real_test.120
OGG1_real_test.85
OGG1_real_test.86
UNG_real_test.107
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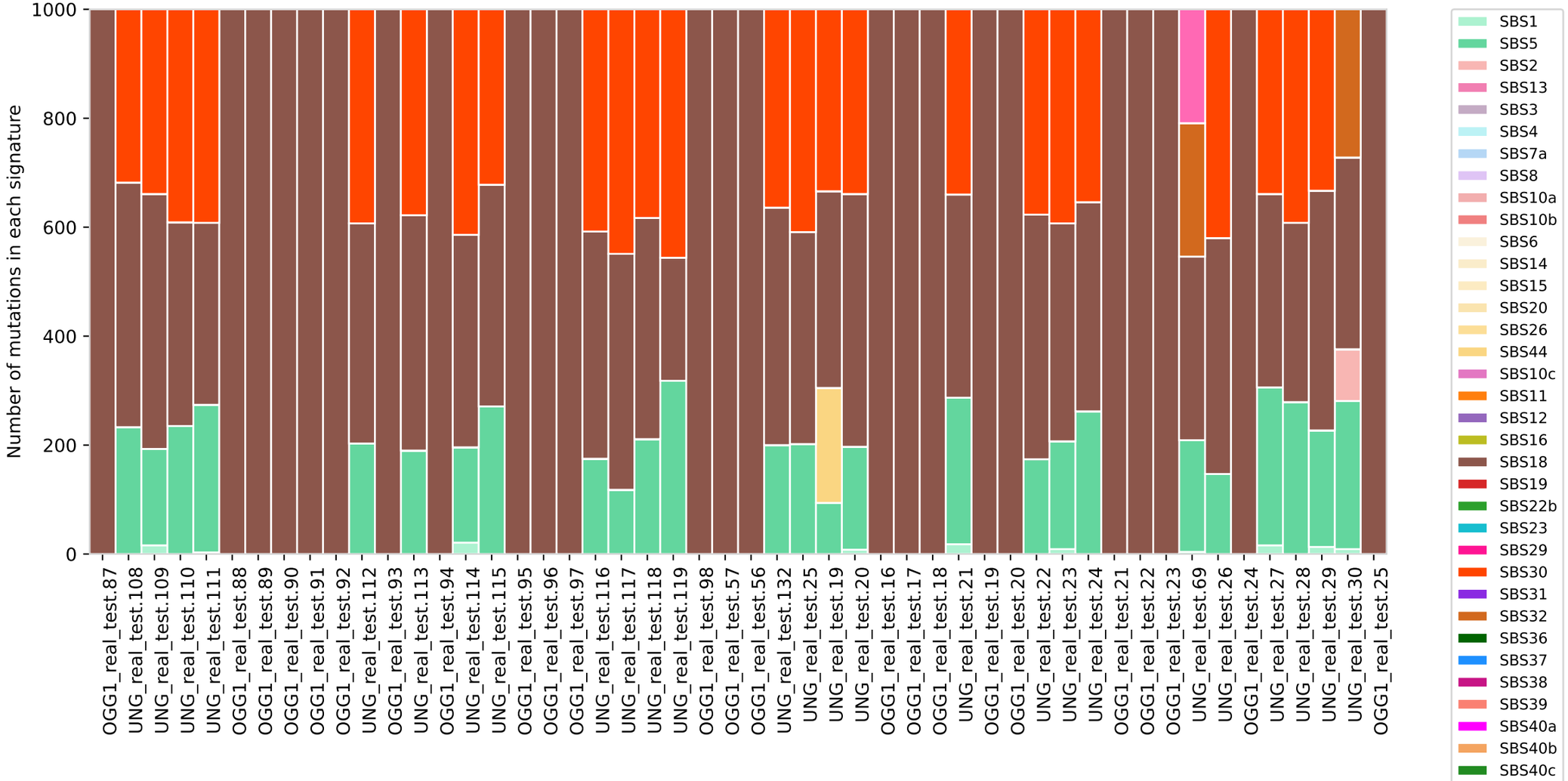
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UNG_real_test.113
OGG1_real_test.94
UNG_real_test.114
UNG_real_test.115
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OGG1_real_test.96
OGG1_real_test.97
UNG_real_test.116
UNG_real_test.117
UNG_real_test.118
UNG_real_test.119
OGG1_real_test.98
OGG1_real_test.57
OGG1_real_test.56
UNG_real_test.132
UNG_real_test.25
UNG_real_test.19
UNG_real_test.20
OGG1_real_test.16
OGG1_real_test.17
OGG1_real_test.18
UNG_real_test.21
OGG1_real_test.19
OGG1_real_test.20
UNG_real_test.22
UNG_real_test.23
UNG_real_test.24
OGG1_real_test.21
OGG1_real_test.22
OGG1_real_test.23
UNG_real_test.69
UNG_real_test.26
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UNG_real_test.27
UNG_real_test.28
UNG_real_test.29
UNG_real_test.30
OGG1_real_test.25
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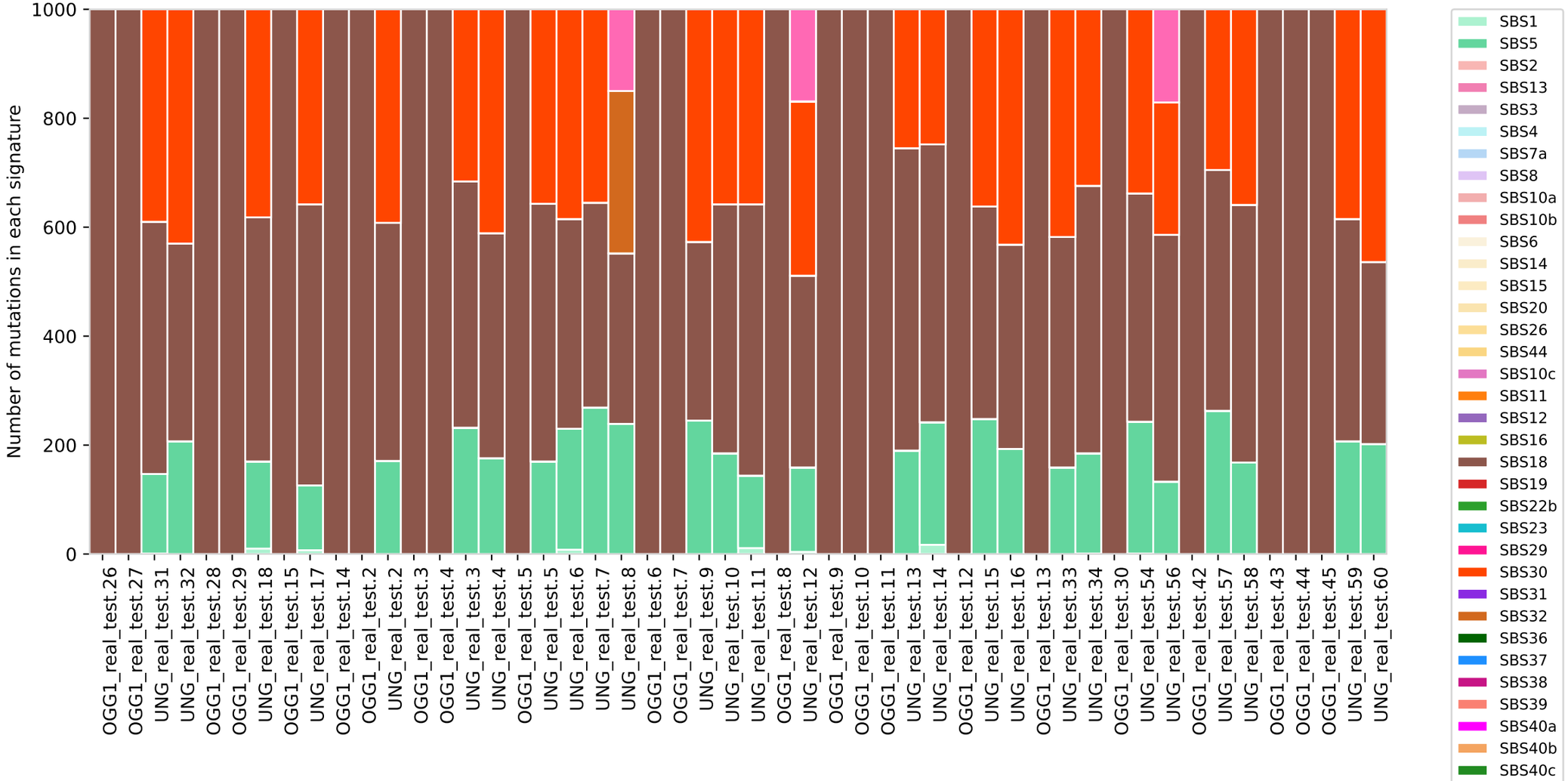
Number of mutations in each signature
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OGG1_real_test.29
UNG_real_test.18
OGG1_real_test.15
UNG_real_test.17
OGG1_real_test.14
OGG1_real_test.2
UNG_real_test.2
OGG1_real_test.3
OGG1_real_test.4
UNG_real_test.3
UNG_real_test.4
OGG1_real_test.5
UNG_real_test.5
UNG_real_test.6
UNG_real_test.7
UNG_real_test.8
OGG1_real_test.6
OGG1_real_test.7
UNG_real_test.9
UNG_real_test.10
UNG_real_test.11
OGG1_real_test.8
UNG_real_test.12
OGG1_real_test.9
OGG1_real_test.10
OGG1_real_test.11
UNG_real_test.13
UNG_real_test.14
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UNG_real_test.16
OGG1_real_test.13
UNG_real_test.33
UNG_real_test.34
OGG1_real_test.30
UNG_real_test.54
UNG_real_test.56
OGG1_real_test.42
UNG_real_test.57
UNG_real_test.58
OGG1_real_test.43
OGG1_real_test.44
OGG1_real_test.45
UNG_real_test.59
UNG_real_test.60
SBS1
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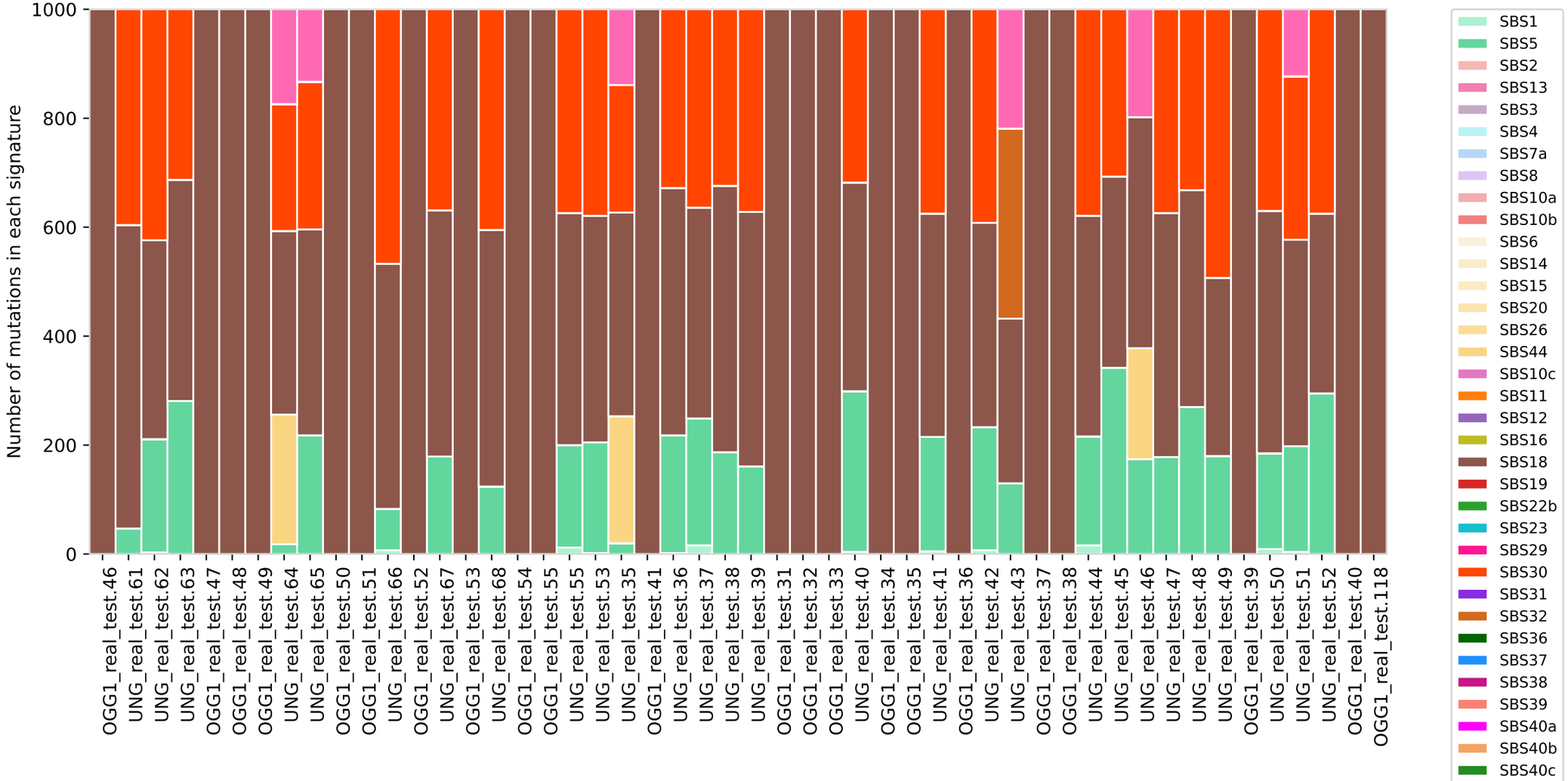
Number of mutations in each signature
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UNG_real_test.63
OGG1_real_test.47
OGG1_real_test.48
OGG1_real_test.49
UNG_real_test.64
UNG_real_test.65
OGG1_real_test.50
OGG1_real_test.51
UNG_real_test.66
OGG1_real_test.52
UNG_real_test.67
OGG1_real_test.53
UNG_real_test.68
OGG1_real_test.54
OGG1_real_test.55
UNG_real_test.55
UNG_real_test.53
UNG_real_test.35
OGG1_real_test.41
UNG_real_test.36
UNG_real_test.37
UNG_real_test.38
UNG_real_test.39
OGG1_real_test.31
OGG1_real_test.32
OGG1_real_test.33
UNG_real_test.40
OGG1_real_test.34
OGG1_real_test.35
UNG_real_test.41
OGG1_real_test.36
UNG_real_test.42
UNG_real_test.43
OGG1_real_test.37
OGG1_real_test.38
UNG_real_test.44
UNG_real_test.45
UNG_real_test.46
UNG_real_test.47
UNG_real_test.48
UNG_real_test.49
OGG1_real_test.39
UNG_real_test.50
UNG_real_test.51
UNG_real_test.52
OGG1_real_test.40
OGG1_real_test.118
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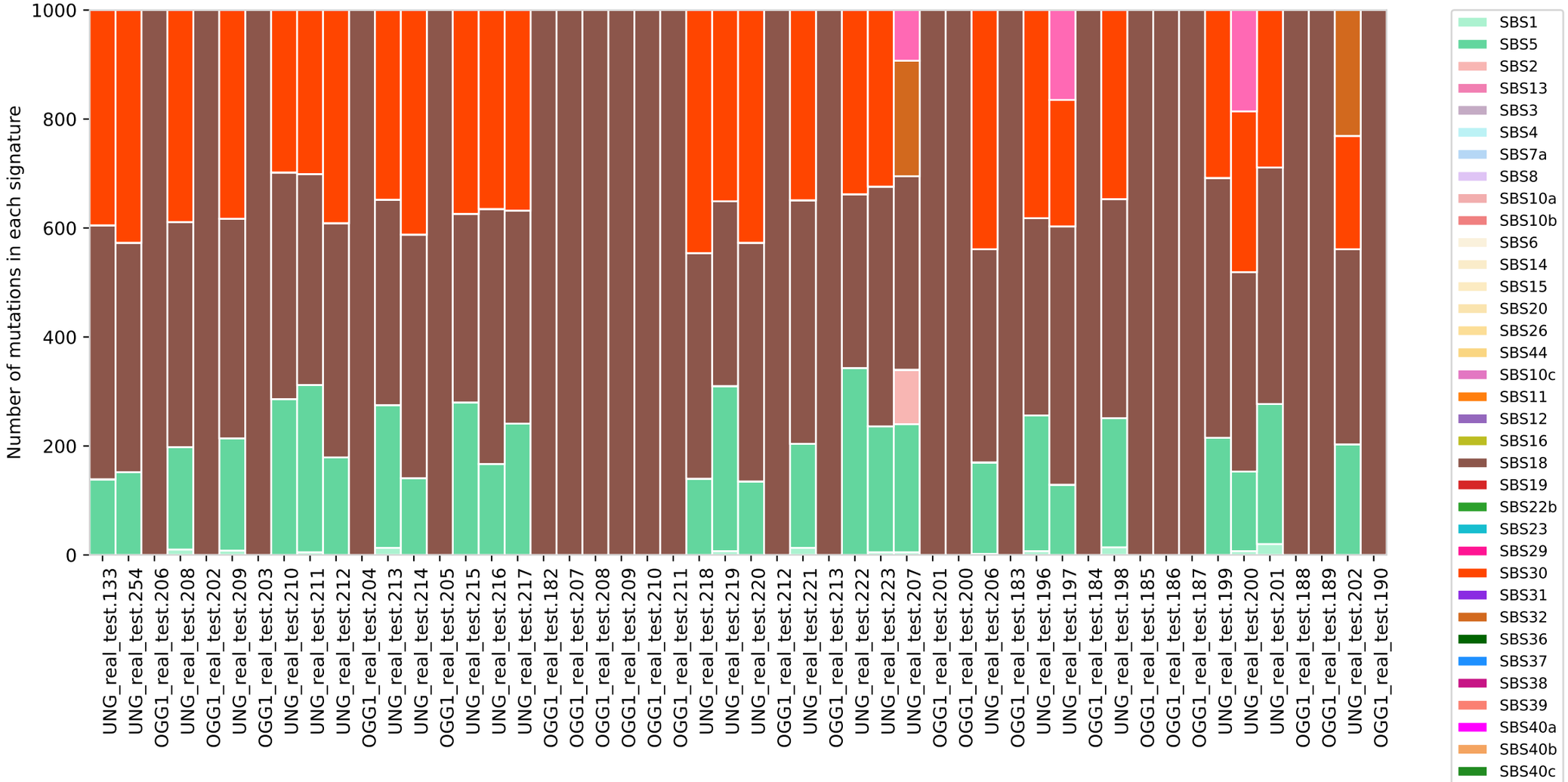
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UNG_real_test.209
OGG1_real_test.203
UNG_real_test.210
UNG_real_test.211
UNG_real_test.212
OGG1_real_test.204
UNG_real_test.213
UNG_real_test.214
OGG1_real_test.205
UNG_real_test.215
UNG_real_test.216
UNG_real_test.217
OGG1_real_test.182
OGG1_real_test.207
OGG1_real_test.208
OGG1_real_test.209
OGG1_real_test.210
OGG1_real_test.211
UNG_real_test.218
UNG_real_test.219
UNG_real_test.220
OGG1_real_test.212
UNG_real_test.221
OGG1_real_test.213
UNG_real_test.222
UNG_real_test.223
UNG_real_test.207
OGG1_real_test.201
OGG1_real_test.200
UNG_real_test.206
OGG1_real_test.183
UNG_real_test.196
UNG_real_test.197
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UNG_real_test.198
OGG1_real_test.185
OGG1_real_test.186
OGG1_real_test.187
UNG_real_test.199
UNG_real_test.200
UNG_real_test.201
OGG1_real_test.188
OGG1_real_test.189
UNG_real_test.202
OGG1_real_test.190
SBS1
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SBS10b
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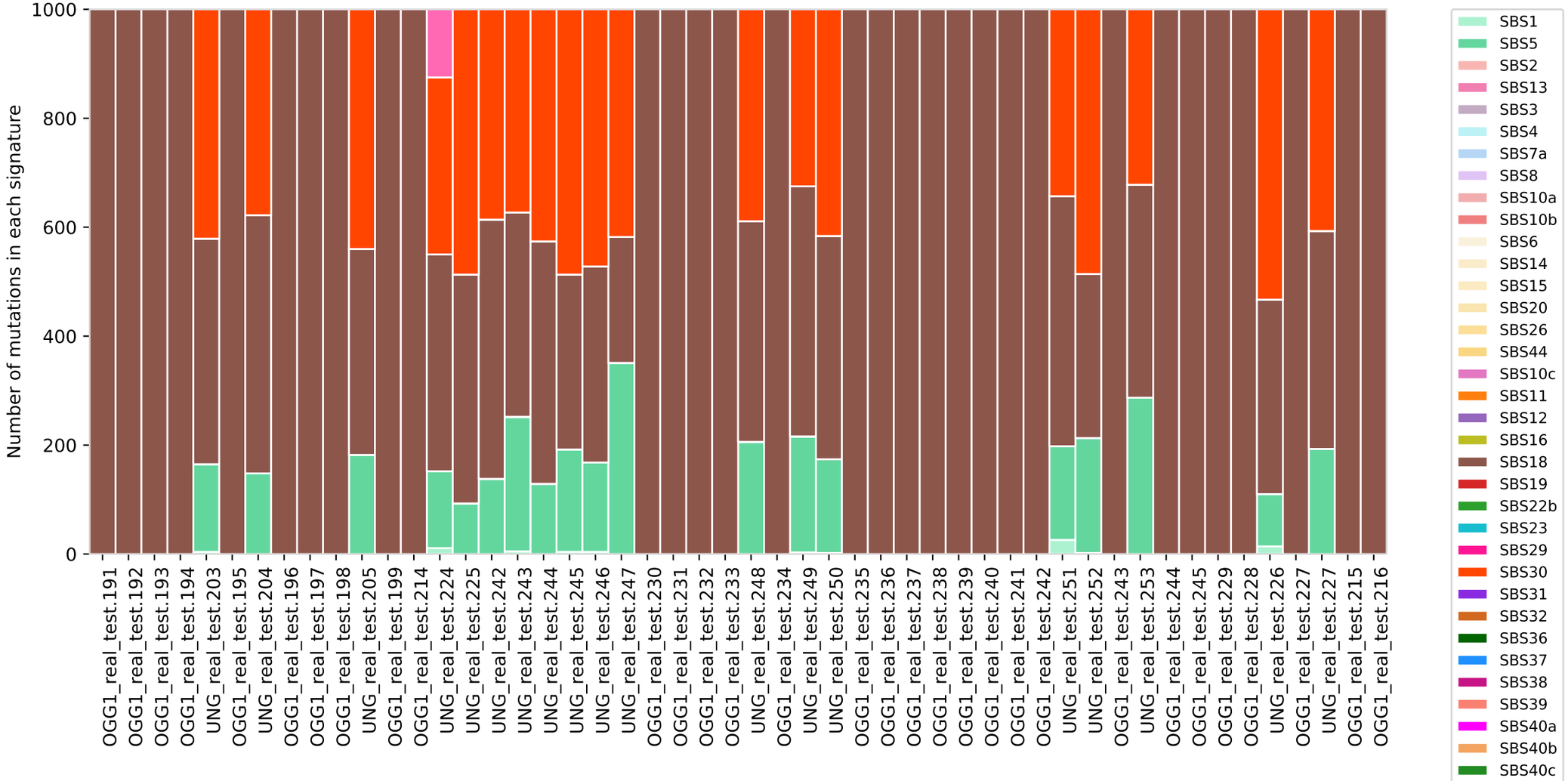
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OGG1_real_test.195
UNG_real_test.204
OGG1_real_test.196
OGG1_real_test.197
OGG1_real_test.198
UNG_real_test.205
OGG1_real_test.199
OGG1_real_test.214
UNG_real_test.224
UNG_real_test.225
UNG_real_test.242
UNG_real_test.243
UNG_real_test.244
UNG_real_test.245
UNG_real_test.246
UNG_real_test.247
OGG1_real_test.230
OGG1_real_test.231
OGG1_real_test.232
OGG1_real_test.233
UNG_real_test.248
OGG1_real_test.234
UNG_real_test.249
UNG_real_test.250
OGG1_real_test.235
OGG1_real_test.236
OGG1_real_test.237
OGG1_real_test.238
OGG1_real_test.239
OGG1_real_test.240
OGG1_real_test.241
OGG1_real_test.242
UNG_real_test.251
UNG_real_test.252
OGG1_real_test.243
UNG_real_test.253
OGG1_real_test.244
OGG1_real_test.245
OGG1_real_test.229
OGG1_real_test.228
UNG_real_test.226
OGG1_real_test.227
UNG_real_test.227
OGG1_real_test.215
OGG1_real_test.216
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SBS19
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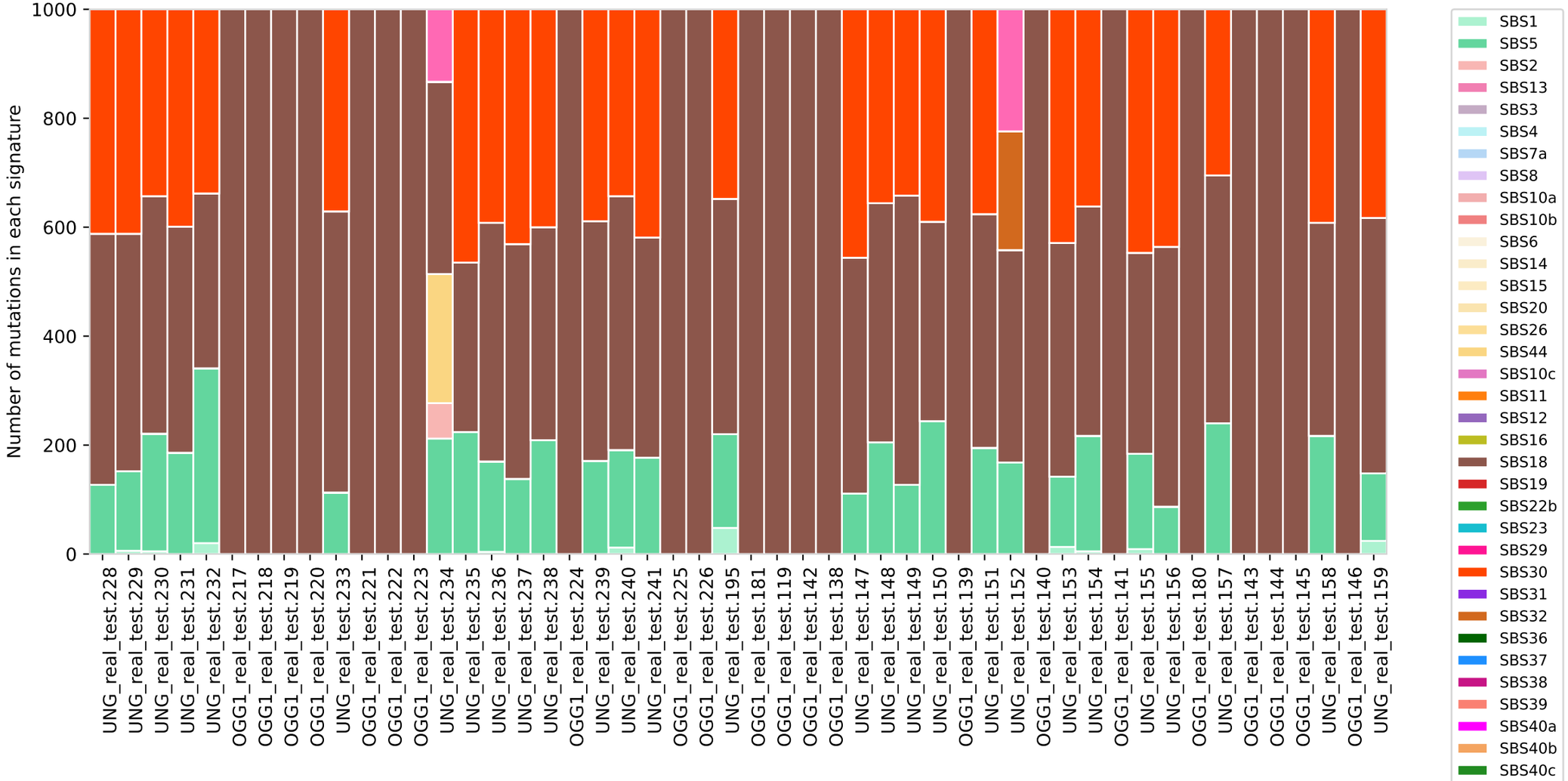
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UNG_real_test.232
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OGG1_real_test.218
OGG1_real_test.219
OGG1_real_test.220
UNG_real_test.233
OGG1_real_test.221
OGG1_real_test.222
OGG1_real_test.223
UNG_real_test.234
UNG_real_test.235
UNG_real_test.236
UNG_real_test.237
UNG_real_test.238
OGG1_real_test.224
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UNG_real_test.240
UNG_real_test.241
OGG1_real_test.225
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UNG_real_test.147
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UNG_real_test.150
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OGG1_real_test.143
OGG1_real_test.144
OGG1_real_test.145
UNG_real_test.158
OGG1_real_test.146
UNG_real_test.159
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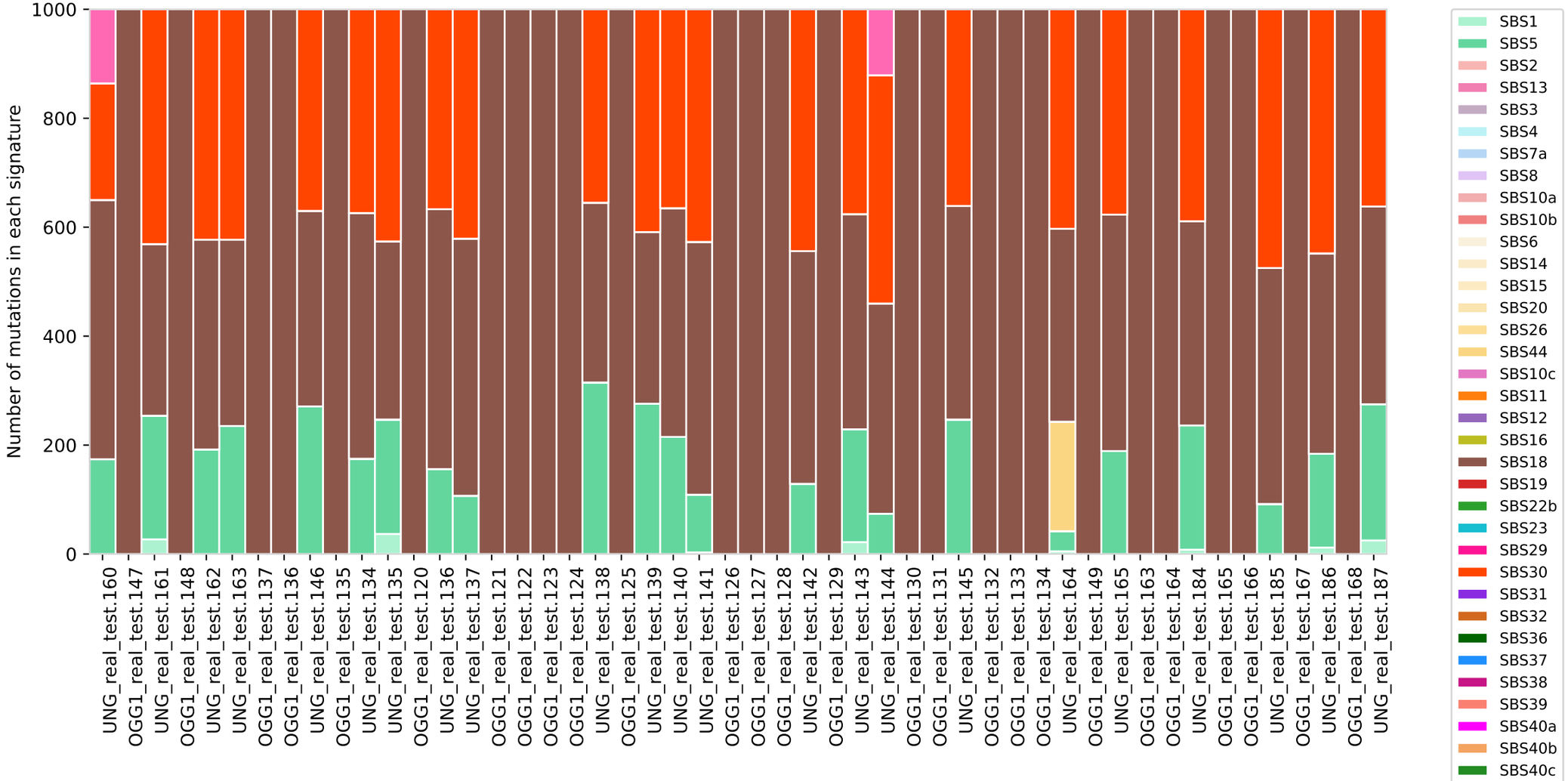
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UNG_real_test.162
UNG_real_test.163
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UNG_real_test.146
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UNG_real_test.135
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UNG_real_test.137
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OGG1_real_test.124
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UNG_real_test.140
UNG_real_test.141
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UNG_real_test.144
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UNG_real_test.145
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UNG_real_test.165
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OGG1_real_test.166
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OGG1_real_test.167
UNG_real_test.186
OGG1_real_test.168
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SBS1
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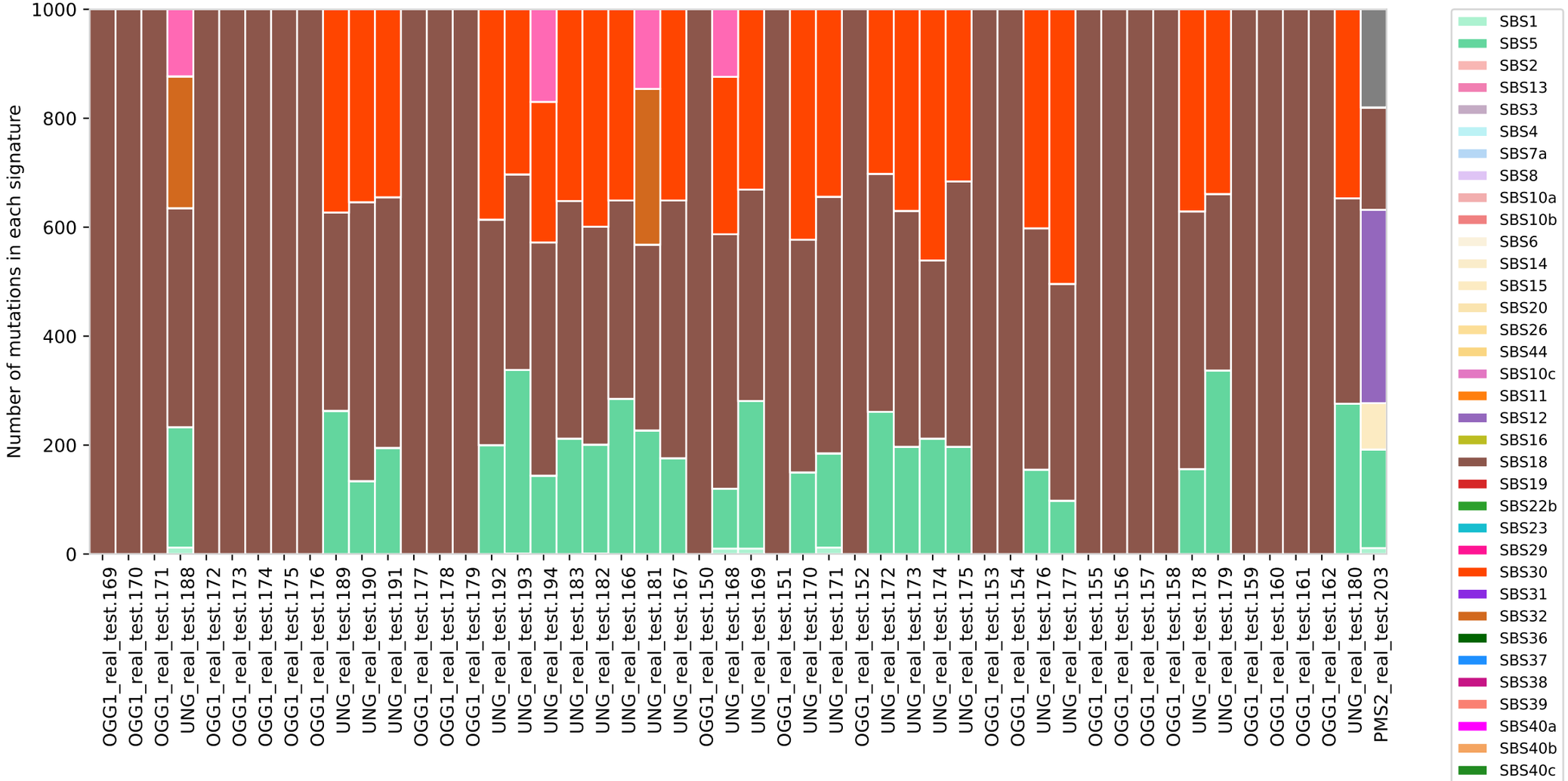
Number of mutations in each signature
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200
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OGG1_real_test.174
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OGG1_real_test.176
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UNG_real_test.174
UNG_real_test.175
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UNG_real_test.176
UNG_real_test.177
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OGG1_real_test.162
UNG_real_test.180
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