## HIVDB algV8\_5 => algV8\_6 Changes

## 8 rules were changed in this version:

- Changed Scores of rule **H51Y**: 5 to 10 (BIC), 5 to 10 (DTG).
- Changed Scores of rule **T66I**: 0 to 5 (BIC), 0 to 5 (DTG).
- Changed Scores of rule **S230R**: 0 to 10 (BIC), 0 to 20 (DTG), 15 to 20 (EVG), 15 to 20 (RAL).
- Changed Scores of rule **R263K**: 15 to 25 (BIC), 15 to 25 (DTG), 15 to 25 (RAL).
- Changed Scores of rule **Q148HKR** + **N155H**: 5 to 10 (BIC), 5 to 10 (DTG).
- Changed rule L74IM + Y143ACGHRS to L74FM + Y143ACGHRS.
- Changed rule **L74IM** + **Q148HKR** to **L74FM** + **Q148HKR** and its scores 5 to 10 (BIC), 5 to 10 (DTG), 0 to 10 (EVG), 0 to 10 (RAL).
- Changed Scores of rule **T97A** + **Q148HKR**: 5 to 10 (BIC), 5 to 10 (DTG).

## Following listed 74 affected patterns of mutations:

PATTERN	COUNT	BIC	DTG	EVG	RAL
R263K	17	15 => 25	15 => 25	30	15 => 25
L74M + T97A + Y143R	8	10	10	30	70
T66I	8	0 => 5	0 => 5	60	15
L74M + Y143R	7	10	10	15	60
T97A + Y143C + S230R	6	10 => 20	10 => 30	45 => 50	85 => 90
L74M + G140S + Q148H	5	50 => 55	50 => 55	90 => 100	90 => 100
L74M + Q95K + T97A + Y143R	5	10	10	40	80
Y143C + N155H + S230R	5	20 => 30	20 => 40	90 => 95	135 => 140
H51Y	4	5 => 10	5 => 10	15	15
S230R	4	0 => 10	0 => 20	15 => 20	15 => 20
N155H + S230R	4	10 => 20	10 => 30	75 => 80	75 => 80
L74M + T97A + Y143C + S230R	4	15 => 25	15 => 35	50 => 55	85 => 90
G140S + Q148H + N155H	3	60 => 65	60 => 65	150	150
L74M + T97A + Y143G	3	10	10	30	70
L74M + T97A + Y143R + E157Q	3	10	10	40	80
Q148R + N155H	3	40 => 45	40 => 45	120	120
T97A + G140S + Q148H	3	50 => 55	50 => 55	100	100
Y143C + S230R	3	10 => 20	10 => 30	30 => 35	75 => 80
E138K + G140A + Q148R + N155H	2	90 => 95	90 => 95	180	180
H51Y + E92Q + G140S + Q148K + N155H	2	85 => 95	85 => 95	225	195
L74I + T97A + Y143C + S230R	2	15 => 20	15 => 30	50	85 => 90
L74M + T97A + Y143R + G163K	2	10	10	45	85
L74M + T97A + Y143S + S230R	2	15 => 25	15 => 35	50 => 55	85 => 90

E92Q + G140S + Q148K + N155H	2	80 => 85	80 => 85	210	180
E92Q + G140S + Q148R + N155H	2	75 => 80	75 => 80	210	180
T97A + Y143C + G163R + S230R	2	15 => 25	15 => 35	65 => 70	100 => 105
Y143C + G163R + S230R	2	15 => 25	15 => 35	50 => 55	90 => 95
E138A + S147G + Q148R + N155H	1	60 => 65	60 => 65	195	135
E138K + G140A + Q148K	1	95 => 100	95 => 100	180	180
+ N155H E138K + Q148R + N155H	1	65 => 70	65 => 70	150	150
+ G163K E138K + Y143C + N155H	1	35 => 45	35 => 55	125 => 130	165 => 170
+ G163R + S230R	1		25 => 35		
E157Q + R263K E92Q + E138K + Y143C	1	25 => 35	25 => 35	40	25 => 35
+ N155H + S230R	1	45 => 55	45 => 65	165 => 170	180 => 185
G140S + Q148H + N155H + E157Q	1	60 => 65	60 => 65	160	160
G140S + Q148K + N155H	1	65 => 70	65 => 70	150	150
G140S + Q148K + N155H + G163R	1	70 => 75	70 => 75	165	165
G140S + Q148R + N155H + E157Q	1	60 => 65	60 => 65	160	160
H51Y + E92Q + G140S + Q148K + N155H + G163R	1	90 => 100	90 => 100	240	210
H51Y + G140S + Q148K	1	55 => 60	55 => 60	105	105
H51Y + T66A + N155H	1	15 => 20	15 => 20	135	90
L74I + G140S + Q148R + R263K	1	65 => 70	65 => 70	120	105 => 115
L74M + E138K + G140C + Q148R + E157Q	1	80 => 85	80 => 85	130 => 140	130 => 140
L74M + E138T + G140S + Q148H	1	80 => 85	80 => 85	120 => 130	120 => 130
L74M + E92Q + Q148R	1	40 => 45	40 => 45	120 => 130	90 => 100
L74M + G140A + Q148R	1	50 => 55	50 => 55	90 => 100	90 => 100
L74M + G140C + Q148R	1	50 => 55	50 => 55	90 => 100	90 => 100
L74M + G140C + Q148R + G163R	1	55 => 60	55 => 60		105 => 115
L74M + G140S + Q148R	1	50 => 55	50 => 55	90 => 100	90 => 100
L74M + G140S + Q148R + E157Q	1	50 => 55	50 => 55	100 => 110	100 => 110
L74M + Q95K + T97A + Y143C + S230R	1	15 => 25	15 => 35	60 => 65	95 => 100
L74M + Q95K + Y143C + S230R	1	15 => 25	15 => 35	45 => 50	85 => 90
L74M + T97A + E138A + Y143C	1	20	20	45	85
L74M + T97A + E138K + Y143C + S230R	1	25 => 35	25 => 45	65 => 70	100 => 105
L74M + T97A + E138K + Y143R	1	20	20	45	85
L74M + T97A + Y143C + G163R + S230R	1	20 => 30	20 => 40	70 => 75	100 => 105
L74M + T97A + Y143G +	1	15	15	50	85
G163R L74M + T97A + Y143H +	1	15	15	50	85
G163R					
L74M + Y143C	1	10	10	15	60

L74M + Y143C + N155H + S230R	1	25 => 35	25 => 45	95 => 100	135 => 140
L74M + Y143R + E1570	1	10	10	25	70
N155H + R263K	1	25 => 35	25 => 35	90	75 => 85
T66I + T97A + G163R	1	0 => 5	0 => 5	85	40
T66I + T97A + N155H	1	10 => 15	10 => 15	130	85
T66I + Y143C	1	5 => 10	5 => 10	70	75
T66K + L74M + G140S +					
Q148R + E157Q	1	65 => 70	65 => 70	160 => 170	160 => 170
T97A + E138A + G140S	_				
+ Q148H	1	80 => 85	80 => 85	130	130
T97A + E138K + Q148R	1	70 > 00	70 > 00	1.00	1.00
+ N155H + G163K	1	70 => 80	70 => 80	160	160
T97A + G140S + Q148R	1	70 > 00	70 > 00	175	175
+ N155H + G163R	1	70 => 80	70 => 80	175	175
T97A + Y143S + S230R	1	10 => 20	10 => 30	45 => 50	85 => 90
Y143C + E157Q + S230R	1	10 => 20	10 => 30	40 => 45	85 => 90
Y143C + G163K + S230R	1	10 => 20	10 => 30	45 => 50	90 => 95
Y143C + N155H + E157Q	1	00 > 00	00 > 40	100 > 105	145 > 150
+ S230R	1	20 => 30	20 => 40	100 => 105	145 => 150
Y143S + N155H + G163K	1	20 > 20	20 > 40	105 > 110	150 > 155
+ S230R	1	20 => 30	20 => 40	105 => 110	130 => 133
Y143S + S230R	1	10 => 20	10 => 30	30 => 35	75 => 80