# RELAX Combined Report

SRV vs SRV+Double vs SRV+Double+Triple
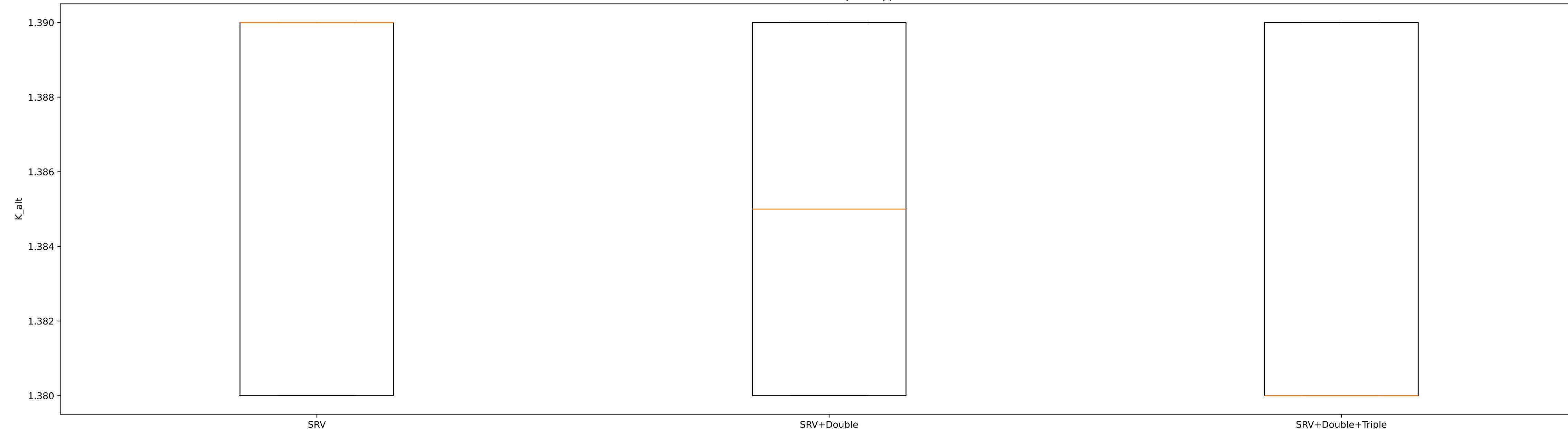
Includes:

- Run-type summary

- Boxplots: K, p-values, 2H/3H

- Full omega/SRV/multihit tables (column-paged)
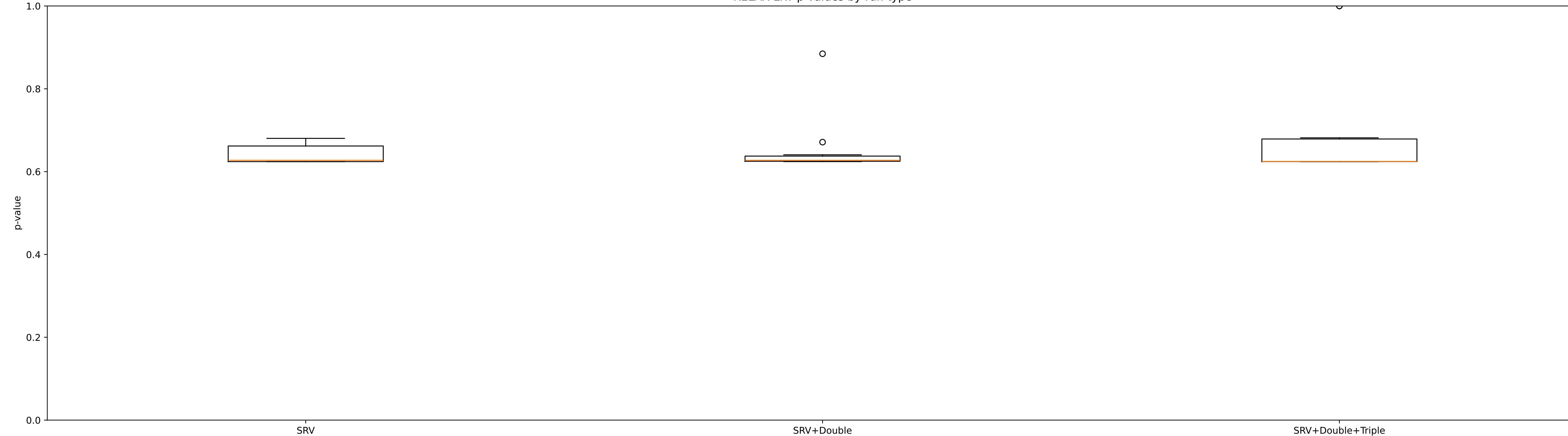
## Run-type summary statistics

| p_median | p_min | p_max | K_median | K_min | K_max | omega_ref_median | omega_test_median | warnings_count | 2H_reference_median | 2H_test_median |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.6274 | 0.6241 | 0.6803 | 1.39 | 1.38 | 1.39 | 0.3278 | 0.2096 | 10 | nan | nan |
| 0.6274 | 0.6242 | 0.8846 | 1.385 | 1.38 | 1.39 | 0.3278 | 0.2096 | 10 | 0.0 | 0.0 |
| 0.6245 | 0.6241 | 1.0 | 1.38 | 1.38 | 1.39 | 0.3278 | 0.2096 | 10 | 0.0 | 0.0 |

K (alternative) by run type

RELAX LRT p-values by run type

# 2H rates (reference) by run type



SRV                    SRV+Double                    SRV+Double+Triple

5
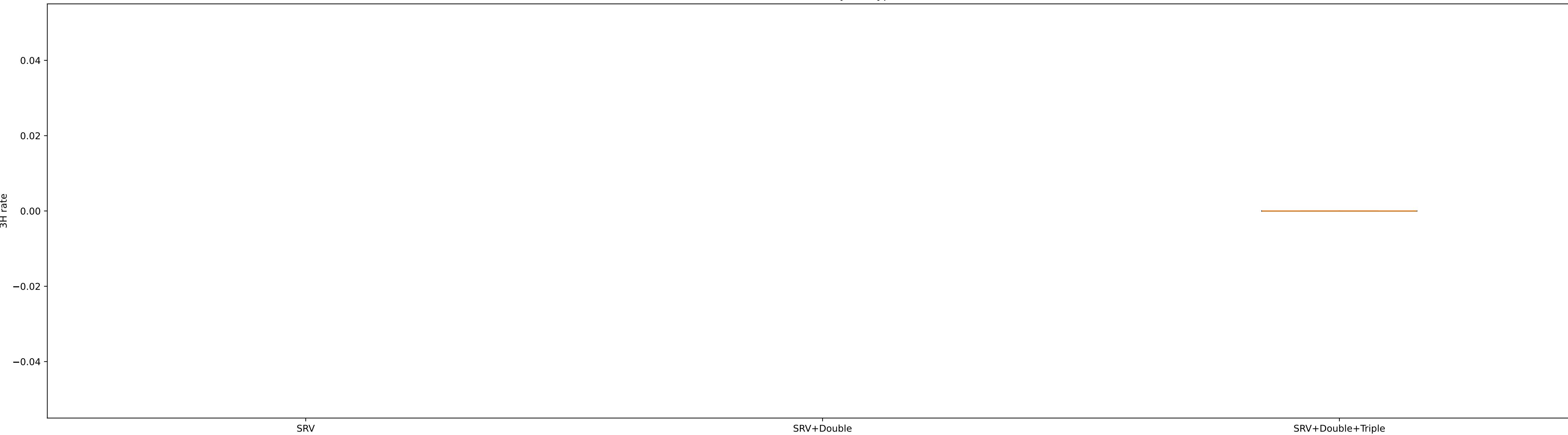
# 2H rates (test) by run type

3H rates (reference) by run type

# 3H rates (test) by run type

| | replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|---|
| | 1 | 0.6735 | 1.39 | 0.3278 | 0.2096 | |
| | 2 | 0.6242 | 1.38 | 0.3278 | 0.2096 | |
| | 3 | 0.6803 | 1.39 | 0.3278 | 0.2096 | |
| | 4 | 0.6241 | 1.38 | 0.3278 | 0.2096 | |
| | 5 | 0.6241 | 1.39 | 0.3278 | 0.2096 | |
| | 6 | 0.6482 | 1.39 | 0.3278 | 0.2096 | |
| | 7 | 0.6242 | 1.38 | 0.3278 | 0.2096 | |
| | 8 | 0.6268 | 1.38 | 0.3278 | 0.2096 | |
| | 9 | 0.628 | 1.39 | 0.3278 | 0.2096 | |
| | 10 | 0.6665 | 1.39 | 0.3278 | 0.2096 | |

| replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|
| 1 | 0.6712 | 1.39 | 0.3278 | 0.2096 | |
| 2 | 0.6267 | 1.38 | 0.3278 | 0.2096 | |
| 3 | 0.6242 | 1.38 | 0.3278 | 0.2096 | |
| 4 | 0.6281 | 1.39 | 0.3278 | 0.2096 | |
| 5 | 0.6283 | 1.39 | 0.3278 | 0.2096 | |
| 6 | 0.6249 | 1.38 | 0.3278 | 0.2096 | |
| 7 | 0.6406 | 1.39 | 0.3278 | 0.2096 | |
| 8 | 0.6246 | 1.38 | 0.3278 | 0.2096 | |
| 9 | 0.6251 | 1.38 | 0.3278 | 0.2096 | |
| 10 | 0.8846 | 1.39 | 0.3278 | 0.2096 | |

| replicate | p_value | K_alt | global_dNdS_reference | global_dNdS_test | |
|---|---|---|---|---|---|
| 1 | 0.6816 | 1.39 | 0.3278 | 0.2096 | |
| 2 | 0.6244 | 1.39 | 0.3278 | 0.2096 | |
| 3 | 0.6241 | 1.38 | 0.3278 | 0.2096 | |
| 4 | 0.6243 | 1.38 | 0.3278 | 0.2096 | |
| 5 | 0.6705 | 1.39 | 0.3278 | 0.2096 | |
| 6 | 0.6242 | 1.38 | 0.3278 | 0.2096 | |
| 7 | 0.6241 | 1.38 | 0.3278 | 0.2096 | |
| 8 | 1.0 | 1.39 | 0.3278 | 0.2096 | |
| 9 | 1.0 | 1.38 | 0.3278 | 0.2096 | |
| 10 | 0.6247 | 1.38 | 0.3278 | 0.2096 | |

| | | | | |
|---|---|---|---|---|
| test | Negative selection | 0.192 | 48.643 | SRV+Double |
| test | Negative selection | 0.221 | 51.357 | SRV+Double |
| test | Negative selection | 0.304 | 48.643 | SRV+Double |
| test | Negative selection | 0.336 | 51.357 | SRV+Double |
| reference | Diversifying selection | 0.205 | 0.0 | SRV+Double |
| reference | Negative selection | 0.307 | 76.79 | SRV+Double |
| reference | Negative selection | 0.321 | 23.21 | SRV+Double |
| test | Diversifying selection | 1.223 | 0.0 | SRV+Double |
| test | Negative selection | 0.307 | 76.79 | SRV+Double |
| test | Negative selection | 0.321 | 23.21 | SRV+Double |
| reference | Diversifying selection | 1.008 | 0.0 | SRV+Double |
| reference | Negative selection | 0.002 | 0.0 | SRV+Double |
| reference | Negative selection | 0.32 | 100.0 | SRV+Double |
| test | Diversifying selection | 1.011 | 0.0 | SRV+Double |
| test | Diversifying selection | 1.008 | 0.0 | SRV+Double |
| test | Negative selection | 0.0 | 0.0 | SRV+Double |
| test | Negative selection | 0.207 | 100.0 | SRV+Double |
| test | Negative selection | 0.002 | 0.0 | SRV+Double |
| test | Negative selection | 0.32 | 100.0 | SRV+Double |
| reference | Diversifying selection | 1.157 | 0.0 | SRV+Double |
| reference | Negative selection | 0.001 | 0.0 | SRV+Double |
| reference | Negative selection | 0.31 | 100.0 | SRV+Double |
| test | Diversifying selection | 1.157 | 0.0 | SRV+Double |
| test | Negative selection | 0.001 | 0.0 | SRV+Double |
| test | Negative selection | 0.31 | 100.0 | SRV+Double |
| reference | Diversifying selection | 1.014 | 0.0 | SRV+Double |
| reference | Negative selection | 0.005 | 0.0 | SRV+Double |
| reference | Negative selection | 0.319 | 100.0 | SRV+Double |
| test | Diversifying selection | 1.019 | 0.0 | SRV+Double |
| test | Diversifying selection | 1.014 | 0.0 | SRV+Double |
| test | Negative selection | 0.001 | 0.0 | SRV+Double |
| test | Negative selection | 0.207 | 100.0 | SRV+Double |
| test | Negative selection | 0.005 | 0.0 | SRV+Double |
| test | Negative selection | 0.319 | 100.0 | SRV+Double |
| reference | Diversifying selection | 1.179 | 0.0 | SRV+Double |
| reference | Negative selection | 0.004 | 0.0 | SRV+Double |
| reference | Negative selection | 0.31 | 100.0 | SRV+Double |
| test | Diversifying selection | 1.179 | 0.0 | SRV+Double |
| test | Negative selection | 0.004 | 0.0 | SRV+Double |
| test | Negative selection | 0.31 | 100.0 | SRV+Double |
| reference | Diversifying selection | 2.654 | 0.0 | SRV+Double |
| reference | Negative selection | 0.001 | 0.0 | SRV+Double |
| reference | Negative selection | 0.32 | 100.0 | SRV+Double |
| test | Diversifying selection | 3.865 | 0.0 | SRV+Double |
| test | Diversifying selection | 2.654 | 0.0 | SRV+Double |
| test | Negative selection | 0.0 | 0.0 | SRV+Double |
| test | Negative selection | 0.207 | 100.0 | SRV+Double |
| test | Negative selection | 0.001 | 0.0 | SRV+Double |
| test | Negative selection | 0.32 | 100.0 | SRV+Double |
| reference | Diversifying selection | 1.988 | 0.0 | SRV+Double |

| | class_id | syn_rate | proportion_percent | run_type | |
|---|---|---|---|---|---|
| | 1 | 0.0 | 0.0 | SRV | |
| | 2 | 0.289 | 81.355 | SRV | |
| | 3 | 4.104 | 18.645 | SRV | |
| | 1 | 0.541 | 72.604 | SRV | |
| | 2 | 0.768 | 20.584 | SRV | |
| | 3 | 6.59 | 6.812 | SRV | |
| | 1 | 0.001 | 0.0 | SRV | |
| | 2 | 0.255 | 79.665 | SRV | |
| | 3 | 3.92 | 20.335 | SRV | |
| | 1 | 0.036 | 0.0 | SRV | |
| | 2 | 0.588 | 93.092 | SRV | |
| | 3 | 6.552 | 6.908 | SRV | |
| | 1 | 0.001 | 0.0 | SRV | |
| | 2 | 0.588 | 93.107 | SRV | |
| | 3 | 6.56 | 6.893 | SRV | |
| | 1 | 0.003 | 0.0 | SRV | |
| | 2 | 0.172 | 75.521 | SRV | |
| | 3 | 3.554 | 24.479 | SRV | |
| | 1 | 0.19 | 0.0 | SRV | |
| | 2 | 0.588 | 93.105 | SRV | |
| | 3 | 6.56 | 6.895 | SRV | |
| | 1 | 0.183 | 0.0 | SRV | |
| | 2 | 0.588 | 93.113 | SRV | |
| | 3 | 6.565 | 6.887 | SRV | |
| | 1 | 0.291 | 12.801 | SRV | |
| | 2 | 0.638 | 80.309 | SRV | |
| | 3 | 6.533 | 6.89 | SRV | |
| | 1 | 0.004 | 0.0 | SRV | |
| | 2 | 0.19 | 76.43 | SRV | |
| | 3 | 3.626 | 23.57 | SRV | |

| | | | |
|---|---|---|---|
| test | 2H | 0.0 | SRV+Double |
| reference | 2H | 0.0 | SRV+Double |
| test | 2H | 0.0 | SRV+Double |
| reference | 2H | 0.0 | SRV+Double |
| test | 2H | 0.0 | SRV+Double |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |
| reference | 3H | 0.0 | SRV+Double+Triple |
| test | 2H | 0.0 | SRV+Double+Triple |
| test | 3H | 0.0 | SRV+Double+Triple |
| reference | 2H | 0.0 | SRV+Double+Triple |