S7 Table Collapsing methods stage 1 results meeting the significance threshold

Results are presented for loci (sliding windows or genes) that reach the threshold for follow-up after sensitivity analyses either with (“Independent variants and variants not in UK10K+1000G”) or without (“Independent variants”) including variants not in joint 1000 Genomes Project [[2](#_ENREF_2)] and UK10K [[4](#_ENREF_4)] reference panel. Abbreviations: N=number of variants, P=P-value, UK10K+1000G=joint 1000 Genomes Project and UK10K reference panel.

1. Burden test results in stage 1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Locus** | **Threshold** | **All variants** | | | | | | **Independent variants** | | | | | | **Independent variants and variants not in UK10K+1000G** | | | | | |
| **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | |
| P | N | P | N | P | N | P | N | P | N | P | N | P | N | P | N | P | N |
| chr3:168984786-168987786 | 1.87x | - | - | 2.25x | 5 | 7.87x | 5 | - | - | 7.24x | 2 | 9.81x | 2 | - | - | 2.25x | 5 | 7.87x | 5 |
| *FLJ20184* | 1x | 1 | 27 | 1.28x | 42 | 5.12x | 46 | 1 | 15 | 1.43x | 23 | 1.12x | 25 | 1 | 22 | 4.21x | 37 | 1.57x | 41 |
| chr4:145278600-145281600 | 2.76x | - | - | 2.34x | 4 | 2.15x | 4 | - | - | 3.76x | 2 | 1.38x | 2 | - | - | 2.34x | 4 | 2.15x | 4 |
| *ITK* | 8.33x | 1 | 13 | 3.98x | 28 | 1.41x | 29 | 1 | 10 | 5.81x | 20 | 5.01x | 21 | 1 | 12 | 3.98x | 28 | 1.64x | 28 |
| *GPR126* | 2.5x | 7.18x | 63 | 2.04x | 110 | 3.21x | 109 | 7.98x | 33 | 8.11x | 61 | 3.91x | 60 | 5.15x | 50 | 1.51x | 93 | 4.65x | 91 |

1. C-alpha test results in stage 1
2. Sliding window

| **Locus** | **Threshold** | **All variants** | | | | | | **Independent variants** | | | | | | **Independent variants and variants**  **not in UK10K+1000G** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | |
| **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** |
| chr1:218531175-218534175 | 4.24x | 1 | - | 2 | 7.67x | 2 | 7.67x | 1 | - | 2 | 7.67x | 2 | 7.67x | 1 | - | 2 | 7.67x | 2 | 7.67x |
| chr2:218807794-218810794 | 1.09x | 3 | 6.33x | 4 | 1.91x | 3 | 2.92x | 2 | 9.25x | 3 | 1.19x | 2 | 3.5x | 2 | 9.25x | 3 | 1.19x | 2 | 3.5x |
| chr2:239890616-239893616 | 3.68x | 1 | - | 3 | 5.76x | 3 | 6.33x | - | - | 2 | 6.05x | 2 | 6.65x | 1 | - | 3 | 5.76x | 3 | 6.33x |
| chr2:239971616-239974616 | 3.68x | 1 | - | 3 | 8.03x | 3 | 1.33x | 1 | - | 3 | 8.03x | 3 | 1.33x | 1 | - | 3 | 8.03x | 3 | 1.33x |
| chr2:239973116-239976116 | 3.68x | 1 | - | 4 | 2.71x | 4 | 3.4x | 1 | - | 3 | 8.03x | 3 | 1.33x | 1 | - | 3 | 8.03x | 3 | 1.33x |
| chr2:240325616-240328616 | 3.68x | 2 | 2.61x | 2 | 3.95x | 2 | 7.05x | 2 | 2.61x | 2 | 3.95x | 2 | 7.05x | 2 | 2.61x | 2 | 3.95x | 2 | 7.05x |
| chr3:168984786-168987786 | 1.87x | 2 | 2.48x | 5 | 1.5x | 5 | 2.74x | 1 | - | 2 | 1.12x | 2 | 1.06x | 2 | 2.48x | 5 | 1.5x | 5 | 2.74x |
| chr3:169238286-169241286 | 1.87x | 1 | - | 4 | 4.52x | 4 | 5.34x | 1 | - | 2 | 3.5x | 2 | 1.46x | 1 | - | 4 | 4.52x | 4 | 5.34x |
| chr3:169310286-169313286 | 1.87x | 2 | 2.48x | 3 | 1.99x | 3 | 1.99x | 2 | 2.48x | 2 | 6.65x | 2 | 2.85x | 2 | 2.48x | 2 | 6.65x | 2 | 2.85x |
| chr3:169311786-169314786 | 1.87x | 2 | 2.48x | 3 | 1.99x | 3 | 1.99x | 2 | 2.48x | 2 | 6.65x | 2 | 2.85x | 2 | 2.48x | 2 | 6.65x | 2 | 2.85x |
| chr3:169340286-169343286 | 1.87x | 3 | 2.95x | 4 | 5.29x | 4 | 8.75x | 2 | 7.82x | 2 | 7.06x | 2 | 7.06x | 2 | 7.82x | 3 | 3.82x | 3 | 6.7x |
| chr3:169341786-169344786 | 1.87x | 6 | 2.54x | 5 | 3.03x | 6 | 1.37x | 4 | 1.7x | 2 | 7.06x | 3 | 9.65x | 5 | 6.58x | 4 | 2.05x | 5 | 4.54x |
| chr3:169371786-169374786 | 1.87x | 2 | 7.36x | 7 | 2.69x | 6 | 1.36x | 1 | - | 4 | 2.18x | 3 | 6.3x | 2 | 7.36x | 7 | 2.69x | 6 | 1.36x |
| chr3:169373286-169376286 | 1.87x | 4 | 4.59x | 6 | 2.64x | 6 | 9.73x | 3 | 1.26x | 3 | 5.39x | 3 | 5.39x | 4 | 4.59x | 6 | 2.64x | 6 | 9.73x |
| chr3:25464333-25467333 | 5.81x | 3 | 1.25x | 4 | 1.63x | 5 | 9.01x | 3 | 1.25x | 3 | 1.51x | 4 | 5.69x | 3 | 1.25x | 4 | 1.63x | 5 | 9.01x |
| chr3:25510833-25513833 | 5.81x | 4 | 1.62x | 3 | 5.19x | 2 | 5.02x | 4 | 1.62x | 3 | 5.19x | 2 | 5.02x | 4 | 1.62x | 3 | 5.19x | 2 | 5.02x |
| chr3:25512333-25515333 | 5.81x | 3 | 2.03x | 2 | 6x | 2 | 5.02x | 3 | 2.03x | 2 | 6x | 2 | 5.02x | 3 | 2.03x | 2 | 6x | 2 | 5.02x |
| chr3:25527333-25530333 | 5.81x | 1 | - | 2 | 6.65x | 2 | 6.65x | 1 | - | 2 | 6.65x | 2 | 6.65x | 1 | - | 2 | 6.65x | 2 | 6.65x |
| chr3:25599333-25602333 | 5.81x | 2 | 3.76x | 2 | 1.52x | 2 | 1.52x | 2 | 3.76x | 2 | 1.52x | 2 | 1.52x | 2 | 3.76x | 2 | 1.52x | 2 | 1.52x |
| chr3:25632333-25635333 | 5.81x | 2 | 2.48x | 6 | 1.14x | 6 | 7.35x | 2 | 2.48x | 6 | 1.14x | 6 | 7.35x | 2 | 2.48x | 6 | 1.14x | 6 | 7.35x |
| chr3:25633833-25636833 | 5.81x | 1 | - | 7 | 3.36x | 7 | 1.87x | 1 | - | 5 | 9.43x | 5 | 4.73x | 1 | - | 7 | 3.36x | 7 | 1.87x |
| chr4:106514233-106517233 | 2.69x | 1 | - | 2 | 3.12x | 2 | 7.37x | 1 | - | 2 | 3.12x | 2 | 7.37x | 1 | - | 2 | 3.12x | 2 | 7.37x |
| chr4:106515733-106518733 | 2.69x | 2 | 4.19x | 5 | 3.15x | 5 | 8.26x | 1 | - | 3 | 2.17x | 3 | 5.09x | 2 | 4.19x | 5 | 3.15x | 5 | 8.26x |
| chr4:145265100-145268100 | 2.76x | 3 | 5.88x | 6 | 4.45x | 7 | 1.26x | 3 | 5.88x | 3 | 1.71x | 4 | 1.76x | 3 | 5.88x | 5 | 6.4x | 6 | 1.66x |
| chr4:145266600-145269600 | 2.76x | 5 | 5.57x | 9 | 1.04x | 8 | 6.12x | 3 | 1.73x | 4 | 1.44x | 4 | 2.66x | 5 | 5.57x | 8 | 1.33x | 7 | 7.91x |
| chr4:145268100-145271100 | 2.76x | 8 | 1.45x | 9 | 9.28x | 8 | 5.78x | 5 | 5.57x | 5 | 6.14x | 5 | 2.39x | 8 | 1.45x | 9 | 9.28x | 8 | 5.78x |
| chr4:145269600-145272600 | 2.76x | 4 | 4.59x | 4 | 1.37x | 4 | 4.21x | 3 | 5.88x | 3 | 1.71x | 3 | 3.89x | 4 | 4.59x | 4 | 1.37x | 4 | 4.21x |
| chr4:145272600-145275600 | 2.76x | 3 | 1.01x | 4 | 8.26x | 4 | 3.01x | 3 | 1.01x | 4 | 8.26x | 4 | 3.01x | 3 | 1.01x | 4 | 8.26x | 4 | 3.01x |
| chr4:145278600-145281600 | 2.76x | 3 | 1.26x | 4 | 2.55x | 4 | 1.46x | 2 | 1.75x | 2 | 4.02x | 2 | 1.69x | 3 | 1.26x | 4 | 2.55x | 4 | 1.46x |
| chr4:145289100-145292100 | 2.76x | 4 | 4.59x | 7 | 2.91x | 7 | 4.52x | 3 | 5.88x | 5 | 3.74x | 5 | 2.05x | 3 | 5.88x | 5 | 3.74x | 5 | 2.05x |
| chr4:145290600-145293600 | 2.76x | 2 | 1.75x | 5 | 2.66x | 5 | 1.28x | 1 | - | 3 | 6.81x | 3 | 3.33x | 2 | 1.75x | 4 | 6.31x | 4 | 3.06x |
| chr4:145293600-145296600 | 2.76x | 3 | 8.88x | 6 | 1.58x | 5 | 3.92x | 1 | - | 2 | 5.4x | 2 | 1.11x | 1 | - | 3 | 5.31x | 3 | 1.19x |
| chr4:145332600-145335600 | 2.76x | 5 | 8.25x | 6 | 1.14x | 7 | 3.66x | 2 | 3.47x | 3 | 1.84x | 4 | 7.88x | 2 | 3.47x | 3 | 1.84x | 4 | 7.88x |
| chr4:145334100-145337100 | 2.76x | 7 | 2.72x | 9 | 1.48x | 10 | 2.85x | 2 | 1.12x | 2 | 9.84x | 4 | 3.08x | 3 | 8.88x | 3 | 9.18x | 4 | 3.08x |
| chr4:145335600-145338600 | 2.76x | 10 | 1.72x | 13 | 1.25x | 13 | 2.12x | 2 | 3.61x | 2 | 1.09x | 3 | 3.62x | 3 | 2.85x | 4 | 7.58x | 4 | 3.77x |
| chr4:145341600-145344600 | 2.76x | 2 | 7.34x | 4 | 3.65x | 4 | 3.54x | 1 | - | 2 | 1.42x | 2 | 9.27x | 1 | - | 2 | 1.42x | 2 | 9.27x |
| chr4:145382100-145385100 | 2.76x | 5 | 2.78x | 6 | 3.33x | 6 | 4.3x | 4 | 7.04x | 5 | 4.57x | 5 | 5.79x | 4 | 7.04x | 5 | 4.57x | 5 | 5.79x |
| chr4:145383600-145386600 | 2.76x | 3 | 5.56x | 4 | 9.98x | 4 | 4.91x | 2 | 1.75x | 3 | 1.43x | 3 | 6.99x | 2 | 1.75x | 3 | 1.43x | 3 | 6.99x |
| chr4:89812605-89815605 | 5x | 2 | 7.36x | 2 | 9.25x | 2 | 3.76x | 2 | 7.36x | 2 | 9.25x | 2 | 3.76x | 2 | 7.36x | 2 | 9.25x | 2 | 3.76x |
| chr4:89814105-89817105 | 5x | 2 | 7.36x | 3 | 5.76x | 3 | 2.71x | 2 | 7.36x | 3 | 5.76x | 3 | 2.71x | 2 | 7.36x | 3 | 5.76x | 3 | 2.71x |
| chr5:147826118-147829118 | 4.9x | 2 | 3.76x | 2 | 9.87x | 2 | 4.7x | 2 | 3.76x | 2 | 9.87x | 2 | 4.7x | 2 | 3.76x | 2 | 9.87x | 2 | 4.7x |
| chr5:147829118-147832118 | 4.9x | - | - | 3 | 2.86x | 3 | 6.81x | - | - | 2 | 3.03x | 2 | 7.22x | - | - | 3 | 2.86x | 3 | 6.81x |
| chr5:147830618-147833618 | 4.9x | - | - | 3 | 2.86x | 3 | 6.81x | - | - | 2 | 3.03x | 2 | 7.22x | - | - | 3 | 2.86x | 3 | 6.81x |
| chr5:156912906-156915906 | 5.88x | 1 | - | 3 | 2.33x | 3 | 5.11x | 1 | - | 2 | 6x | 2 | 5.53x | 1 | - | 3 | 2.33x | 3 | 5.11x |
| chr9:98180197-98183197 | 9.8x | 1 | - | 3 | 1.88x | 3 | 1.06x | 1 | - | 2 | 2.68x | 2 | 3.5x | 1 | - | 3 | 1.88x | 3 | 1.06x |
| chr9:98181697-98184697 | 9.8x | 1 | - | 4 | 1.02x | 4 | 2.84x | 1 | - | 3 | 1.88x | 3 | 1.06x | 1 | - | 4 | 1.02x | 4 | 2.84x |
| chr10:12207674-12210674 | 1.09x | 2 | 2.7x | 4 | 9.11x | 4 | 1.6x | 2 | 2.7x | 3 | 4.8x | 3 | 1.02x | 2 | 2.7x | 4 | 9.11x | 4 | 1.6x |
| chr10:12209174-12212174 | 1.09x | 2 | 2.7x | 4 | 9.11x | 4 | 1.6x | 2 | 2.7x | 3 | 4.8x | 3 | 1.02x | 2 | 2.7x | 4 | 9.11x | 4 | 1.6x |
| chr10:77609018-77612018 | 1.71x | 3 | 1.55x | 5 | 2.17x | 5 | 6.3x | 3 | 1.55x | 4 | 2.04x | 4 | 5.91x | 3 | 1.55x | 5 | 2.17x | 5 | 6.3x |
| chr12:57529676-57532676 | 1.56x | 1 | - | 4 | 7.04x | 4 | 6.14x | 1 | - | 4 | 7.04x | 4 | 6.14x | 1 | - | 4 | 7.04x | 4 | 6.14x |
| chr12:96134582-96137582 | 5.05x | 4 | 4.66x | 3 | 4.44x | 2 | 5.33x | 3 | 1.02x | 2 | 9.28x | 2 | 5.33x | 4 | 4.66x | 3 | 4.44x | 2 | 5.33x |
| chr12:96136082-96139082 | 5.05x | 3 | 6.69x | 3 | 4.44x | 2 | 5.33x | 2 | 2.24x | 2 | 9.28x | 2 | 5.33x | 3 | 6.69x | 3 | 4.44x | 2 | 5.33x |
| chr12:96157082-96160082 | 5.05x | 1 | - | 2 | 4.69x | 2 | 4.84x | 1 | - | 2 | 4.69x | 2 | 4.84x | 1 | - | 2 | 4.69x | 2 | 4.84x |
| chr12:96158582-96161582 | 5.05x | 2 | 7.36x | 3 | 1.22x | 3 | 2.78x | 2 | 7.36x | 3 | 1.22x | 3 | 2.78x | 2 | 7.36x | 3 | 1.22x | 3 | 2.78x |
| chr12:96335582-96338582 | 5.05x | 1 | - | 3 | 2.56x | 3 | 5.15x | 1 | - | 3 | 2.56x | 3 | 5.15x | 1 | - | 3 | 2.56x | 3 | 5.15x |
| chr15:71704287-71707287 | 2.66x | 3 | 1.45x | 3 | 8.69x | 3 | 2.42x | 2 | 4.19x | 2 | 2.46x | 2 | 7.9x | 3 | 1.45x | 3 | 8.69x | 3 | 2.42x |
| chr16:58032243-58035243 | 1.61x | - | - | 3 | 1.67x | 4 | 2.68x | - | - | 2 | 3.99x | 2 | 3.25x | - | - | 2 | 3.99x | 3 | 1.81x |
| chr21:35645321-35648321 | 1.25x | 3 | 1.71x | 4 | 1.99x | 5 | 1.82x | 2 | 4.14x | 2 | 5.4x | 3 | 4.83x | 3 | 1.71x | 3 | 3.33x | 4 | 2.98x |
| chr21:35646821-35649821 | 1.25x | 4 | 1.59x | 5 | 1.65x | 5 | 1.82x | 2 | 4.14x | 2 | 5.4x | 3 | 4.83x | 3 | 1.71x | 3 | 3.33x | 4 | 2.98x |

1. Gene based

| **Locus** | **Threshold** | **All variants** | | | | | | **Independent variants** | | | | | | **Independent variants and variants**  **not in UK10K+1000G** | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | |
| **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** |
| *TGFB2* | 5x | 34 | 1.61x | 60 | 7.43x | 65 | 2.9x | 21 | 3.34x | 31 | 3.54x | 33 | 5.57x | 30 | 1.39x | 45 | 2.92x | 49 | 7.7x |
| *TNS1* | 5x | 22 | 5.32x | 69 | 2.07x | 72 | 3.74x | 12 | 1.52x | 41 | 3.38x | 42 | 3.08x | 19 | 5.75x | 61 | 5.2x | 62 | 1.56x |
| *HDAC4* | 5x | 65 | 3.43x | 174 | 1.42x | 189 | 2.95x | 32 | 3.2x | 93 | 2.07x | 100 | 2.15x | 41 | 7.87x | 141 | 8.81x | 151 | 2.63x |
| *RARB* | 2.5x | 68 | 1.48x | 125 | 7.24x | 127 | 2.44x | 48 | 4.33x | 72 | 1.17x | 76 | 5.33x | 60 | 1.02x | 111 | 6.04x | 112 | 3.14x |
| *MECOM* | 5x | 331 | 5.13x | 496 | 1.89x | 509 | 7.08x | 95 | 7.8x | 164 | 2.02x | 172 | 3.36x | 168 | 9.08x | 308 | 8.71x | 315 | 2.85x |
| *FAM13A* | 5x | 65 | 8.86x | 131 | 7.67x | 137 | 3.48x | 38 | 1.75x | 63 | 1.1x | 68 | 6.18x | 52 | 2.28x | 109 | 1.58x | 115 | 9.38x |
| *FLJ20184* | 1x | 27 | 5.52x | 42 | 7.52x | 46 | 1.93x | 15 | 1.82x | 23 | 9.67x | 25 | 1.24x | 22 | 1.65x | 37 | 6.27x | 41 | 2.37x |
| *HHIP* | 5x | 37 | 1.89x | 66 | 4.31x | 65 | 1.45x | 21 | 2.04x | 31 | 5.1x | 28 | 8.33x | 33 | 1.01x | 57 | 3.5x | 56 | 7.07x |
| *ITK* | 8.33x | 13 | 1.05x | 28 | 9.31x | 29 | 5.94x | 10 | 2.31x | 20 | 2.66x | 21 | 8.36x | 12 | 1.75x | 28 | 9.31x | 28 | 2.41x |
| *DDR1* | 1.22x | 5 | 5.2x | 6 | 9.8x | 6 | 1.66x | 4 | 6.62x | 4 | 1.11x | 4 | 3.87x | 5 | 5.2x | 6 | 9.8x | 6 | 1.66x |
| *TNXB* | 7.14x | 6 | 5.54x | 17 | 7.03x | 21 | 3.81x | 1 | -x | 9 | 6.91x | 11 | 7.65x | 3 | 1.26x | 15 | 2.84x | 17 | 5.45x |
| *ARMC2* | 5x | 55 | 9.82x | 63 | 3.91x | 68 | 7.16x | 29 | 4.27x | 39 | 1.45x | 44 | 2.19x | 39 | 4.71x | 58 | 1.33x | 62 | 1.94x |
| *LOC153910* | 2.5x | 28 | 3.06x | 44 | 3.15x | 45 | 2.15x | 19 | 2.83x | 28 | 8.85x | 30 | 1.17x | 22 | 3.12x | 41 | 1.82x | 43 | 1.56x |
| *PTCH1* | 5x | 22 | 6.15x | 57 | 5.21x | 54 | 1.66x | 6 | 1.64x | 27 | 1.71x | 26 | 2.99x | 13 | 3.07x | 41 | 3.87x | 40 | 2.34x |
| *CDC123* | 1.67x | 10 | 7.91x | 18 | 2.86x | 23 | 4.78x | 7 | 3.03x | 11 | 6.57x | 14 | 5.82x | 10 | 7.91x | 18 | 2.86x | 22 | 4.78x |
| *NUDT5* | 1.67x | 12 | 5.96x | 22 | 1.44x | 26 | 3.29x | 7 | 8.47x | 11 | 1.36x | 13 | 2.72x | 11 | 9.6x | 18 | 2.02x | 20 | 6.13x |
| *C10orf11* | 5x | 221 | 5.53x | 370 | 7.13x | 389 | 9.73x | 102 | 3.95x | 163 | 7.56x | 176 | 9.54x | 149 | 3.45x | 275 | 1.48x | 292 | 2.85x |
| *HAL* | 8.3x | 7 | 2.84x | 17 | 2.01x | 19 | 1.08x | 5 | 4.8x | 10 | 2.89x | 11 | 3.39x | 7 | 2.84x | 16 | 1.62x | 18 | 7.76x |
| *NTN4* | 8.3x | 43 | 1.44x | 57 | 1.39x | 62 | 1.36x | 21 | 1.73x | 31 | 8.06x | 35 | 3.06x | 28 | 1.6x | 47 | 5.11x | 50 | 1.64x |
| *THSD4* | 5x | 150 | 2.1x | 293 | 3.37x | 340 | 4.89x | 87 | 3.68x | 144 | 6.88x | 157 | 2.41x | 111 | 9.78x | 224 | 4.51x | 243 | 1.97x |
| *CNGB1* | 1x | 9 | 1.88x | 25 | 2.14x | 25 | 4.16x | 7 | 1.14x | 18 | 5.04x | 18 | 1.36x | 7 | 1.14x | 21 | 2.47x | 21 | 1.55x |
| *MMP15* | 1x | 5 | 2.78x | 5 | 7x | 6 | 3.89x | 4 | 3.5x | 3 | 3.25x | 4 | 8.63x | 5 | 2.78x | 4 | 2.63x | 5 | 7x |

1. Exon based

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Locus** | **Threshold** | **All variants** | | | | | | **Independent variants** | | | | | | **Independent variants and variants**  **not in UK10K+1000G** | | | | | |
| **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | | **vipR** | | **SNVer** | | **Syzygy** | |
| **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** | **N** | **P** |
| *HDAC4* | 5x | 1 | - | 4 | 3.66x | 4 | 2.11x | 1 | - | 4 | 3.66x | 4 | 2.11x | 1 | - | 4 | 3.66x | 4 | 2.11x |
| *NPNT* | 1.25x | 7 | 3.38x | 10 | 6.76x | 12 | 5.36x | 3 | 1.81x | 6 | 2.88x | 5 | 1.75x | 3 | 1.81x | 8 | 2.84x | 7 | 1.96x |