

Table S15 GO term enrichment for molecular function in the North American cline for genes that overlap windows in the top 5% tail of Fst.

| 5% Tail Molecular Function | | |
|----------------------------|----------|---|
| GO term | q-value | description |
| GO:0019904 | 0.00E+00 | protein domain specific binding |
| GO:0003700 | 9.43E-13 | transcription factor activity |
| GO:0043565 | 5.69E-09 | sequence-specific DNA binding |
| GO:0005515 | 6.05E-09 | protein binding |
| GO:0005089 | 1.47E-07 | Rho guanyl-nucleotide exchange factor activity |
| GO:0003704 | 1.19E-06 | specific RNA polymerase II transcription factor activity |
| GO:0005509 | 6.53E-06 | calcium ion binding |
| GO:0004871 | 1.82E-05 | signal transducer activity |
| GO:0008270 | 4.25E-05 | zinc ion binding |
| GO:0003702 | 5.31E-05 | RNA polymerase II transcription factor activity |
| GO:0016563 | 6.32E-05 | transcription activator activity |
| GO:0017147 | 7.70E-05 | Wnt-protein binding |
| GO:0004674 | 2.20E-04 | protein serine/threonine kinase activity |
| GO:0004714 | 3.05E-04 | transmembrane receptor protein tyrosine kinase activity |
| GO:0005267 | 3.09E-04 | potassium channel activity |
| GO:0008188 | 3.09E-04 | neuropeptide receptor activity |
| GO:0003779 | 4.30E-04 | actin binding |
| GO:0008017 | 5.96E-04 | microtubule binding |
| GO:0004879 | 8.37E-04 | ligand-dependent nuclear receptor activity |
| GO:0003707 | 8.37E-04 | steroid hormone receptor activity |
| GO:0004672 | 8.90E-04 | protein kinase activity |
| GO:0005041 | 1.27E-03 | low-density lipoprotein receptor activity |
| GO:0004888 | 1.63E-03 | transmembrane receptor activity |
| GO:0003713 | 1.63E-03 | transcription coactivator activity |
| GO:0004713 | 1.88E-03 | protein tyrosine kinase activity |
| GO:0008227 | 2.12E-03 | amine receptor activity |
| GO:0008134 | 2.31E-03 | transcription factor binding |
| GO:0005326 | 2.31E-03 | neurotransmitter transporter activity |
| GO:0004889 | 3.22E-03 | nicotinic acetylcholine-activated cation-selective channel activity |
| GO:0005524 | 3.50E-03 | ATP binding |
| GO:0032183 | 4.08E-03 | SUMO binding |
| GO:0003714 | 5.58E-03 | transcription corepressor activity |
| GO:0005096 | 5.58E-03 | GTPase activator activity |
| GO:0005102 | 7.22E-03 | receptor binding |
| GO:0003677 | 7.22E-03 | DNA binding |
| GO:0004725 | 1.73E-02 | protein tyrosine phosphatase activity |
| GO:0008092 | 1.97E-02 | cytoskeletal protein binding |
| GO:0005112 | 2.38E-02 | Notch binding |
| GO:0042803 | 2.51E-02 | protein homodimerization activity |
| GO:0042623 | 2.97E-02 | ATPase activity, coupled |

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| GO:0005085 | 3.07E-02 | guanyl-nucleotide exchange factor activity |
| GO:0030528 | 3.28E-02 | transcription regulator activity |
| GO:0004930 | 3.32E-02 | G-protein coupled receptor activity |
| GO:0000166 | 4.61E-02 | nucleotide binding |
| GO:0000287 | 4.61E-02 | magnesium ion binding |
| GO:0004653 | 4.93E-02 | polypeptide N-acetylgalactosaminyltransferase activity |
| GO:0050839 | 4.93E-02 | cell adhesion molecule binding |
| GO:0003729 | 4.93E-02 | mRNA binding |
| GO:0019992 | 4.98E-02 | diacylglycerol binding |
