SUPPLEMENTAL INFORMATION

VWF sequences

Human (*Homo sapiens*) VWF cDNA sequence was compiled from GenBank entries M10321.1 (1), M17588.1 (2) and X04385.1 (3). This full length cDNA sequence is the same as that of refseq NM_000552.3 except for a few known single nucleotide polymorphisms.

Human VWF gene sequence was based on AH005287.1, a segmented set of 38 entries M25828.1 through M25865.1 that covers all 52 exons (4), and M60675.1, which contains the sequence of a 21.3 kb gene fragment spanning exons 23-34 (5). The human VWF pseudogene sequence is M60676.1, which comprises a 21 kb pseudogene on chromosome 22 that corresponds to exons 23-34 of the VWF gene on chromosome 12 (5).

White-tufted-ear marmoset (*Callithrix jachus*) VWF cDNA sequence is predicted refseq XM_002752243.1. Chimpanzee (*Pan troglodytes*) VWF cDNA sequence is predicted refseq XM_508945.2. Mouse (*Mus musculus*) VWF cDNA sequence is refseq NM_011708.3. Giant panda (*Ailuropoda melanoleuca*) VWF cDNA sequence is predicted refseq XM_002930091.1.

VWF cDNA sequences for 25 species were assembled *de novo* from genomic sequences. Nucleotide sequence data reported for 23 species are available in the Third Party Annotation Section of the DDBJ/EMBL/GenBank databases under the accession numbers TPA: BK007980-BK008005. VWF cDNA sequences for western lowland gorilla (*Gorilla gorilla*) and bottlenosed dolphin (*Tursiops truncatus*) are appended below.

New VWF gene and cDNA sequences were identified by using human VWF genomic DNA, cDNA and protein sequences for iterative BLASTN and TBLASTN (NCBI version 2.2.24) searches of GenBank sequences including genome assemblies, high throughput genome sequences (htgs), genome survey sequences (gss), whole genome shotgun sequences (wgss), non-redundant nucleotide sequences, expressed sequence tags (ESTs), trace archives and short read archives. Exons and splice sites were identified based on sequence similarity using the programs SeqMan Pro, MegAlign, and EditSeq (version 8.1.5, DNASTAR, Inc., Madison, WI) and assembled into cDNA sequences. In some cases splice site prediction with the program SplicePort (version 1) (6) was used to support the identification of exon 2, which encodes a cleaved signal peptide. Remaining gaps were assigned lengths based on the conserved length of the corresponding exons for VWF from other species.

Rhesus monkey (*Macaca mulatta*) VWF cDNA sequence BK007989 is similar to predicted refseq XM_002807974.1, except that XM_002807974.1 lacks complete sequence for exon 28. BK007989 was derived from wgss AANU01190199.1 (exons 1-3), AANU01190200.1 (exons 4-5), AANU01190202.1 (exon 6), AANU01190205.1 (exons 7-18), AANU01190206.1 (exons 19-20), AANU01190207.1 (exons 21-28), AANU01190208.1 (exons 28-42), AANU01190209.1 (exons 43-47), and AANU01190210.1 (exons 48-52). Gaps and errors in exon 28 were corrected from traces TI490421287, TI852218215, and TI358561899.

Dog (*Canis lupus familiaris*) VWF cDNA sequence BK007981 is similar to predicted NM_001002932.1, except that parts of NM_001002932.1 are inconsistent with other cDNA entries or genomic traces for exons 7, 11, and 42. BK007981 was derived from wgss AAEX02011162.1.

Cattle (*Bos taurus*) VWF cDNA sequence BK007980 is derived from wgss AAFC03120372.1 (exons 1-3), AAFC03120374.1 (exons 6-7), and AAFC03028507.1 (exons 11-52). Gaps in this assembly were filled from traces TI419342196, TI515279818, TI425321040, TI589958794, and TI594837491. Exons

and splice sites were identified by comparison to cDNA sequences AW354654.1, BF777006.1, EE333226.1, BI535247.1, AW352873.1, BE749548.1, BM288253.1, AW658424.1, CK955532.1, and CK774294.1.

Pig (*Sus scrofa*) VWF cDNA sequence BK007995 is derived from htgs AC163958.2 and FP102760.2, which do not cover exons 1-5. These exons were obtained from cDNA sequences BP459041.1 and DT327670.1. Exons and splice sites were identified by comparison to cDNA sequences BE030430.1, BE236207.1, BM485003.1, BF442911.1, BF443270.1, BI346678.1, and BF703224.1.

Horse (*Equus caballus*) VWF cDNA sequence BK007985 is derived from wgss AAWR02029170.1 (exons 1-15), AAWR02029169.1 (exon 16), and AAWR02029168.1 (exons 18-52). Exon 17 was provided by trace TI1472575032.

Rat (*Rattus norvegicus*) VWF cDNA sequence BK007994 is similar to predicted refseq XM_342759.1, except that XM_342759.1 lacks exons 1 and 5. BK007994 is derived from wgss AAHX01032881.1 (exons 1-37), AAHX01032882.1 (exons 38-47), AAHX01032883.1 (exons 48-52). The majority of the sequence was confirmed and splice sites were identified by alignment with cDNAs FM070253.1, CB547010.1, CB736674.1, U50044.1, AJ224673.1, CB545392.1, CB610389.1, CB581251.1, CB703030.1, CF113897.1, and BI298314.1.

Rabbit (*Oryctolagus cuniculus*) VWF cDNA sequence BK007991 is derived from wgss AAGW02051559.1 (exons 1-5), AAGW02051558.1 (exons 6-20), AAGW02051557.1 (exons 21-38), AAGW02051556.1 (exons 39-43), and AAGW02051555.1 (exons 44-52). Errors at the 5' end of exon 34 were corrected from trace TI855913069. A frameshift in exon 28 was corrected from TI651097624. The splice site between exons 43-44 was identified by comparison to cDNA EC620075.1.

Chicken (*Gallus gallus*) VWF cDNA sequence BK007988 is derived from wgss AADN02065137.1 (exons 1-15), AADN02065136.1 (exons 16-21), AADN02065135.1 (exons 22-30), AADN02065133.1 (exons 31-34), and AADN02065132.1 (exons 35-52). Identification of exons 1-4, 14-17, 25-28, 29-31, and 38-52 is supported by comparison to cDNAs BU323363.1, BU462510.1, BU331027.1, BU309203.1, BQ037193.2, BM485548.1, AI979961.1, BM426048.1, BX258791.1, BM488796.1, and BX258790.1.

Zebra finch (*Taeniopygia guttata*) VWF cDNA sequence BK007997 is derived from wgss ABQF01036128.1 (exons 1-27), ABQF01036130.1 (exons 28-30), and ABQF01036131.1 (exons 31-52). The 5' end of exon 28 was completed from trace TI1261325877. The sequence is similar to predicted refseq XM_002188179.1, except that exons 2, 23, 24 and 28 in XM_002188179.1 required correction based on alignments with corresponding chicken, anole, human and frog sequences.

Western clawed frog (*Xenopus tropicalis*) VWF cDNA sequence BK007996 is derived from wgss AAMC01011472.1 (exon 2), AAMC01011474.1 (exons 3-6), AAMC01011475.1 (exons 7-32), AAMC01011476.1 (exons 33-40), AAMC01011477.1 (exons 41-42), AAMC01011478.1 (exons 43-44), and AAMC01011479.1 (exons 45-52). Splice sites for exons 28-34 and exons 40-52 were identified by comparison to ESTs DR835756.1, DN007177.1, DN080731.1, EG653390.1, EL715901.1, DN083600.1, and EL715900.1. BK007996 is similar to predicted refseq XM_002932296.1 except that XM_002932296.1 has errors in exons 2 and 33.

Sumatran orangutan (*Pongo abelii*) VWF cDNA sequence BK007993 is derived from wgss ABGA01401196.1 (exons 1-3), ABGA01275753.1 (exons 1-3), ABGA01268156.1 (exons 4-5), ABGA01268154.1 (exon 6), ABGA01063082.1 (exons 7-15), ABGA01063080.1 (exons 16-18), ABGA01063078.1 (exons 19-20), ABGA01063077.1 (exons 21-34), ABGA01171174.1 (exons 35-37), ABGA01324188.1 (exons 38), ABGA01171175.1 (exons 39-40), ABGA01171176.1 (exons 41-42),

ABGA01013475.1 (exons 43), ABGA01013476.1 (exons 44-47), and ABGA01090113.1 (exons 48-52). A frameshift in exon 14 was corrected from trace TI897102100.

African elephant (*Loxodonta africana*) VWF cDNA sequences BK008002 (exons 1-17) and BK008003 (exons 18-52) are derived from wgss AAGU03036114.1 (exons 1-16), AAGU03036113.1 (exons 18-47), and AAGU03036112.1 (exons 48-52). Exon 17 was provided by trace TI1744370414. The gap between BK008002 and BK008003 corresponds to approximately 46 nucleotides at the 5' end of exon 18.

Domestic cat (*Felis catus*) VWF cDNA sequence BK007986 is derived from wgss ACBE01225964.1 (exon 1), ACBE01225963.1 (exons 3-4), ACBE01225962.1 (exon 5), ACBE01225960.1 (exon 6), ACBE01225961.1 (exon 7), ACBE01225955.1 (exons 8-15), ACBE01225954.1 (exon 16), ACBE01225952.1 (exon 17), ACBE01225951.1 (exon 18), ACBE01225949.1 (exons 19-22), ACBE01225948.1 (exons 23-27), ACBE01225947.1 (exons 28-34), ACBE01225946.1 (exon 35), ACBE01225945.1 (exons 36-37), ACBE01225944.1 (exon 38), ACBE01225943.1 (exons 39-42), ACBE01225942.1 (exons 43-45), ACBE01225941.1 (exons 46-47), ACBE01225940.1 (exon 48), and ACBE01225939.1 (exons 49-52). Exon 2 was provided by trace TI1950120789. The 3' end of exon 4 was provided by trace TI898344027.

Large flying fox (*Pteropus vampyrus*) VWF cDNA sequence BK008004 (exons 1-20) and BK008005 (exons 21-52) are derived from wgss ABRP01038654.1 (exon 2), ABRP01360519.1 (exon 3), ABRP01038656.1 (exons 4-6), ABRP01038659.1 (exons 7-10), ABRP01038660.1 (exons 11-12), ABRP01038661.1 (exon 13), ABRP01038662.1 (exons 14-18), ABRP01038663.1 (exons 19-20), ABRP01038664.1 (exon 21), ABRP01038665.1 (exons 22-24), ABRP01038666.1 (exons 25-34), ABRP01038668.1 (exons 35-40), ABRP01038669.1 (exons 41-47), and ABRP01038672.1 (exons 48-52). Exon 12 was edited based on trace TI1379389256. The gap between BK008004 and BK008005 corresponds to approximately 56 nt at the 3' end of exon 20.

Nine-banded armadillo (*Dasypus novemcinctus*) VWF cDNA sequence BK007983 is derived from htgs AC163260.2 (exons 1-41); wgss AAGV020435885.1 (exon 42), AAGV020435888.1 (exon 44), AAGV020435889.1 (exons 46-47), AAGV020561273.1 (exon 51); and traces TI1895851916 (exon 17), TI1885723830 (exon 43), TI1873705844 (exon 45), TI2005246912 (exon 48), TI1641417980 (exon 49), TI1803631052 (exon 50), and TI1873812382 (exon 52).

Domestic guinea pig (*Cavia porcellus*) VWF cDNA sequence BK007982 is derived from wgss AAKN02051671.1 (exons 1-16) and AAKN02051670.1 (exons 17-52).

Gray short-tailed opossum (*Monodelphis domestica*) VWF cDNA sequence BK007990 is derived from wgss AAFR03037682.1 (exons 2-6), AAFR03037678.1 (exons 7-37), AAFR03037676.1 (exons 38-39), and AAFR03037675.1 (exons 40-52).

Green anole lizard (*Anolis carolensis*) VWF cDNA sequences BK008000 (exons 1-32) and BK008001 (exons 34-52) are derived from wgss AAWZ02019413.1 (exons 1-14), AAWZ02019412.1 (exons 15-19), AAWZ02019410.1 (exons 22-31), AAWZ02019409.1 (exon 32), AAWZ02019408.1 (exons 34-46), and AAWZ02019407.1 (exons 47-52). The gap between BK008000 and BK008001 corresponds to exon 33, or approximately 44 nucleotides.

Zebrafish (*Danio rerio*) VWF cDNA sequence BK007984 is derived from wgss CABZ01015114.1 (exon 2), CABZ01015113.1 (exons 3-7), CABZ01015112.1 (exons 8-18), CABZ01015111.1 (exons 19-20), CABZ01015110.1 (exon 21), CABZ01015109.1 (exons 22-33), CABZ01015108.1 (exons 34-36), CABZ01015107.1 (exons 37-45), and CABZ01015106.1 (exons 46-52). Splice sites for exons 38-52 are

supported by comparison to cDNA entries EB902243.1, EH543632.1, and EB978371.1 BK007984 is similar to predicted XM_002665310.1, except that exons 4, 5, 7, 8, 10, 29, 43, and 44 appear to be incorrect in XM_002665310.1.

Japanese medaka (*Oryzias latipes*) VWF cDNA sequence BK007992 is derived from wgss BAAF04048397.1 (exons 2-51) and BAAE01258935.1 (exons 45-52).

Three-spined stickleback (*Gasterosteus aculeatus*) VWF cDNA sequence BK007987 is derived from wgss AANH01001674.1 (exons 2-52).

Spotted green pufferfish (*Tetraodon nigroviridus*) VWF cDNA sequence BK007998 is derived from wgss CAEE01015122.1 (exons 2-52).

Torafugu (*Takifugu rubripes*) VWF cDNA sequence BK007999 is derived from wgss CAAB01000205.1 (exons 2-52).

Western lowland gorilla (*Gorilla gorilla*) VWF cDNA sequence (VWFgorilla, appended after Table S1) is derived from wgss CABD02074492.1 (exons 1-3), CABD02074490.1 (exons 4-5), CABD02074487.1 (exon 6), CABD02074482.1 (exons 7-10), CABD02074481.1 (exons 11-16), CABD02074479.1 (exon 17), CABD02074478.1 (exon 18), CABD02074477.1 (exons 19-24), CABD02230032.1 (exons 25-32), CABD02074475.1 (exons 33-34), CABD02074472.1 (exons 35-42), CABD02074469.1 (exons 43-47), and CABD02074467.1 (exons 48-52). Human, chimpanzee, gorilla and orangutan genomes contain a VWF locus on chromosome 12 and a partial unprocessed pseudogene on chromosome 22 that is approximately 96% identical to the gene sequence (5). The sequence of gorilla VWF exon 28 was confirmed to be from the VWF gene by sequencing of genomic DNA isolated from peripheral blood of a gorilla, using PCR primers to selectively amplify and sequence exon 28 from the VWF gene (5). Comparisons with the human VWF gene and pseudogene suggests that the sequences for gorilla VWF exons 25, 26, 29, 30, 31 and 33 are from the VWF gene, but that exons 23, 24, 27, 32, and 34 contain some pseudogene sequences, probably due to errors in genome assembly.

Bottlenosed dolphin (*Tursiops truncatus*) VWF cDNA sequence (VWFtursiops, appended after Table S1) is derived from wgss ABRN01165339.1 (exon 3), ABRN01165340.1 (exon 4), ABRN01165341.1 (exon 5), ABRN01165342.1 (exons 6-10), ABRN01165343.1 (exons 11-16), ABRN01165344.1 (exons 17-18), ABRN01165346.1 (exons 19-20), ABRN01165347.1 (exon 21), ABRN01165348.1 (exons 22-26), ABRN01165349.1 (exons 27-28), ABRN01165350.1 (exons 28-30), ABRN01165351.1 (exons 32-43), ABRN01165352.1 (exons 44-47), ABRN01165353.1 (exons 49-50), and ABRN01355946.1 (exons 51-52). For alignments, gaps corresponding to exons 2, 31, and 48, as well as incomplete portions of exons 17 and 28, were assigned lengths equal to the corresponding human VWF exons.

Mucin sequences

Chicken (*Gallus gallus*) MUC2 cDNA sequence is based on predicted refseq XM_421035.2, which was edited to correct splice sites between exons 4 and 5 by alignment with chromosome reference assembly NC_006092.2 and other MUC2 homologs. MUC6 is predicted refseq XM_426405.2.

Dog (*Canis lupus familiaris*) MUC2 cDNA sequence is based on predicted refseq XM_540774.2. MUC5AC cDNA sequence is predicted refseq XM_540775.2, which is incorrectly annotated as MUC5B. MUC5B is predicted refseq XM_540777.2. MUC6 is predicted refseq XM_540773.2. MUC19 is predicted refseq XM_847204.1.

Cattle (*Bos taurus*) MUC19 cDNA sequence is predicted refseq XM_002687376.1.

Pig (*Sus scrofa*) MUC19 cDNA sequence is AF005273.1.

Horse (*Equus caballus*) MUC2 cDNA sequence is based on predicted refseq XM_001492997.1 (nt 1-3673) and predicted refseq XM_001502065.1 (nt 3392-4233). MUC5AC is based on predicted refseq XR_044663.1, edited to correct exon 12 from reference assembly NC_009155.2 and genomic traces.

Human (*Homo sapiens*) MUC2 cDNA sequence is refseq NM_002457.2. MUC5AC is predicted refseq XM_001717880.2. MUC5B is predicted refseq XM_001129427.1. MUC6 is validated refseq NM_005961.2. MUC19 is predicted refseq XM_497341.3. This version has some errors in gene prediction at the 5' end but the region corresponding to domains D1D2D'D3 appears to be correct. The later version XM_497341.4 is missing substantial segments of domain D1.

Mouse (*Mus musculus*) MUC2 cDNA sequence is based on predicted refseq XM_001001905.1 (nt 1-3375), EST BF578645.1 (nt 3376-3506), and predicted refseq XM_001001905.1 (nt 3507-7374). MUC5AC is based on validated refseq NM_010844.1 edited to add 3 nt at the 3' end of exon 10 based on alignment with other MUC5AC homologs and genomic working draft sequence AC020817.3. MUC5B is validated refseq NM_028801.2. MUC6 is cDNA BC120907.2. MUC19 is provisional refseq NM_207243.2.

Rat (*Rattus norvegicus*) MUC2 cDNA sequence is cDNA U07615.1. MUC5AC is partial cDNA AB042530.1. MUC5B is predicted refseq XM_238988.5. MUC6 is based on predicted refseq XM_215127.6, with editing of exons 2 and 5 based on alignment with mouse MUC6 cDNA BC120907.2 and genomic scaffold NW_047563.2. MUC19 is predicted sequence BK005555.1.

African clawed frog (*Xenopus laevis*) integumentary mucin B1 (FIMB1) cDNA sequence is Y08296.1.

Phylogenetic Analysis

Protein sequences of VWF and mucins were aligned with MegAlign (version 8.1.5, DNASTAR, Inc., Madison, WI) using the Clustal W method, Gonnet protein weight matrices, gap penalty 10, and gap length penalty 0.2. Because the proteins compared are relatively similar, the alignment is relatively insensitive to the choice of parameters or weight matrix. For example, nearly identical results were obtained with PAM or BLOSUM matrices, particularly with respect to alignment of Cys or His residues.

TABLE S1. **Non-canonical splice sites in VWF genes**

Species	Intron	Donor Sequence	Acceptor Sequence	Evidence
M. domestica	13	ggtgaagGCaagtcc	ctcctcAGttgtctc	Alignment with other VWF genes
A. carolinensis	26	cctgcagGCaagcat	tgaaacAGgaaaaat	Alignment with other VWF genes and *A. carolinensis* spliced mRNA transcripts
T. nigroviridus	39	attaaagGCaagctt	gtgtgcAGctcctgt	Alignment with other VWF genes
T. nigroviridus	48	tgtacagGCaagcaa	tcctgcAGgtgaacg	Alignment with other VWF genes
T. rubripes	39	attaaagGCaagctt	gtatacAGctcctgt	Alignment with other VWF genes
G. aculeatus	39	gtcagagGCaagatt	gtgtgcAGctccagt	Alignment with other VWF genes
O. latipes	4	aaaaaagGCacaagc	tctcgcAGactcact	Alignment with other VWF genes
D. rerio	44	gaggcagGCgagtgt	gtttgaAGgtcggag	Alignment with other VWF genes and *D. rerio* spliced mRNA transcripts

>VWFgorilla Gorilla gorilla VWF cDNA sequence
agctcacagctattgtggtgggaaagggagggtggttggtggatgtcacagcttggcctttatctcccccagcagtgggg
actccacagcccctgggctacataacagcaagacagtccggagctgtagcagacctgattgagcctttgcagcagctgag
agcatggcctagggtgggcggcaccattgtccagcagctgagtttcccagggaccttggagatacccgcagccctcattt
gcaggggaagatgattcctgccagagttgccggggtgctgcttgctctggccctcattttgccagggacccttgtgcag
aaggaactcgcggcaggtcatccatggcccgatgcagcctcttcggaaatgacttcgtcaacacctttgatgggagcatg
tacagctttgcgggatactgcagttacctcctggcagggggctgccagaaacgctccttctcgattattggggacttcca
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ccaccctctggtggaccccgagccttttgtggccctgtgtgagaagacgttgtgtgagtgtgctgggggctggagtgcg
cctgccctgccttcctggagtacgcccggacctgtgcccaggagggaatggtgctgtacggctggaccgaccacagcgcg
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Supplemental Figure Legends

FIG. S1. **Phylogenetic tree of vertebrates with sequenced VWF genes.** A taxonomic tree was constructed with the "Common Tree" tool and the lineages in the NCBI taxonomy database for the species indicated (http://www.ncbi.nlm.nih.gov/guide/taxonomy/, accessed November 1, 2010).

FIG. S2. **Sequence pair distances for VWF.** The protein sequences of VWF were aligned with MegAlign (version 8.1.5, DNASTAR, Inc., Madison, WI) using the Clustal W method and Gonnet protein weight matrices. For the aligned sequences, the graph displays percent identity directly above the diagonal, and divergence by comparing sequence pairs in relation to the reconstructed phylogeny below the diagonal.

FIG. S3. **Alignment of VWF domains D1D2D'D3**. Protein sequences of VWF corresponding to the D1D2D'D3 domains of human VWF (residues 23-1227) were aligned with MegAlign using the Clustal W method and Gonnet protein weight matrices. Residues that match human VWF exactly are boxed and shaded *yellow*. His residues are shaded *green* if present in human VWF and *blue* if not.

FIG. S4. **Alignment of D1D2D'D3 domains for human VWF and vertebrate gel-forming mucins**. Protein sequences of human VWF corresponding to the D1D2D'D3 domains (residues 23-1227) were aligned to the indicated representative gel-forming mucins with MegAlign using the Clustal W method and Gonnet protein weight matrices. Residues that match human VWF exactly are boxed and shaded *yellow*. His residues are shaded *green* if present in human VWF and *blue* if not.

FIG. S5. **Expression of separate VWF D1D2 and D'D3 constructs with His mutations**. BHK-fur4 cells were transiently transfected with wild type (WT) or mutant D1D2 and D'D3 constructs having the indicated amino acid substitutions. Conditioned medium (A) and cell lysates (B) were analyzed by SDS-PAGE and Western blotting with HRP-conjugated anti-VWF. Positions corresponding to monomeric D'D3, D1D2, and dimeric $(D'D3)_2$ are indicated at the left.

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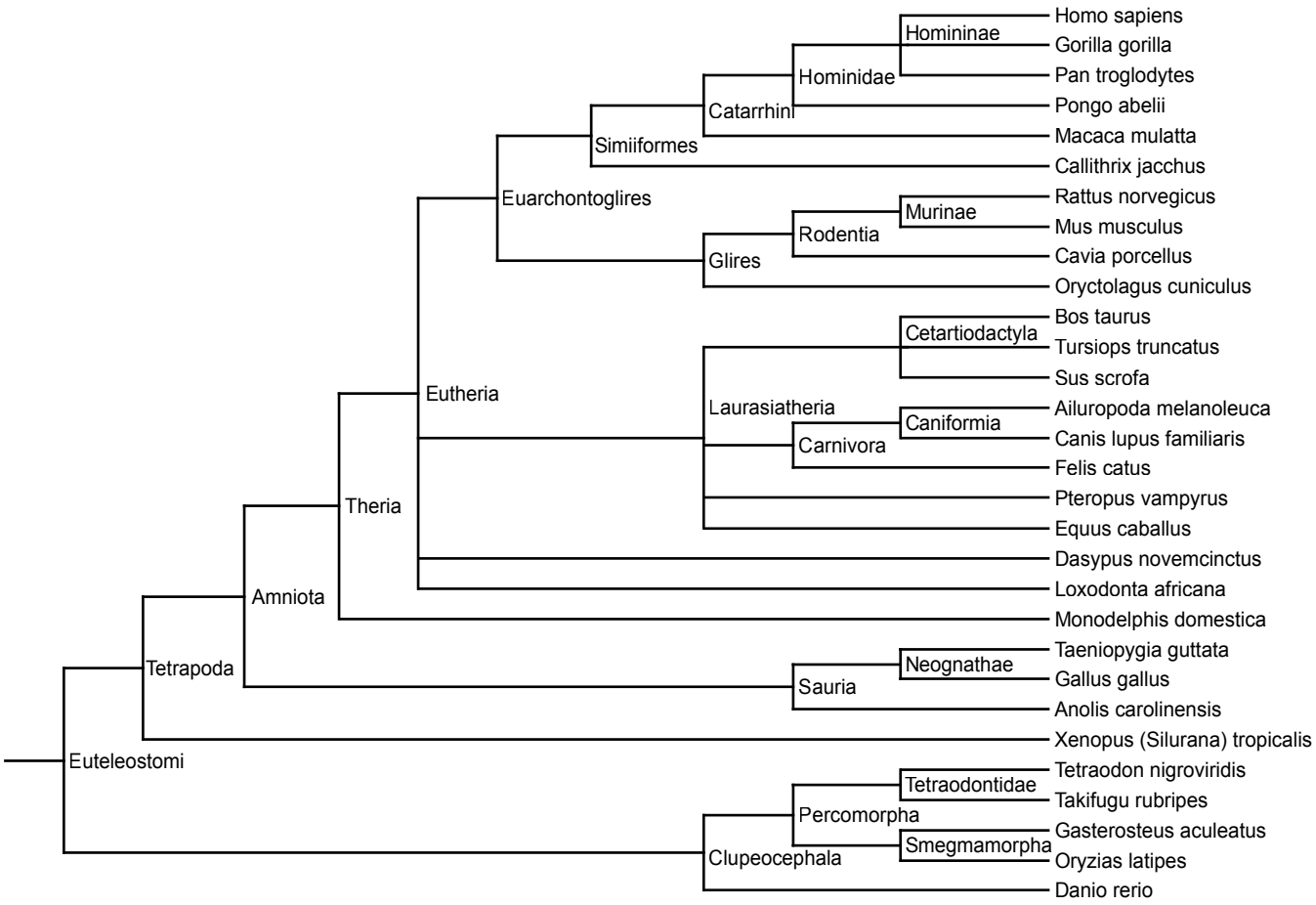

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Figure S1

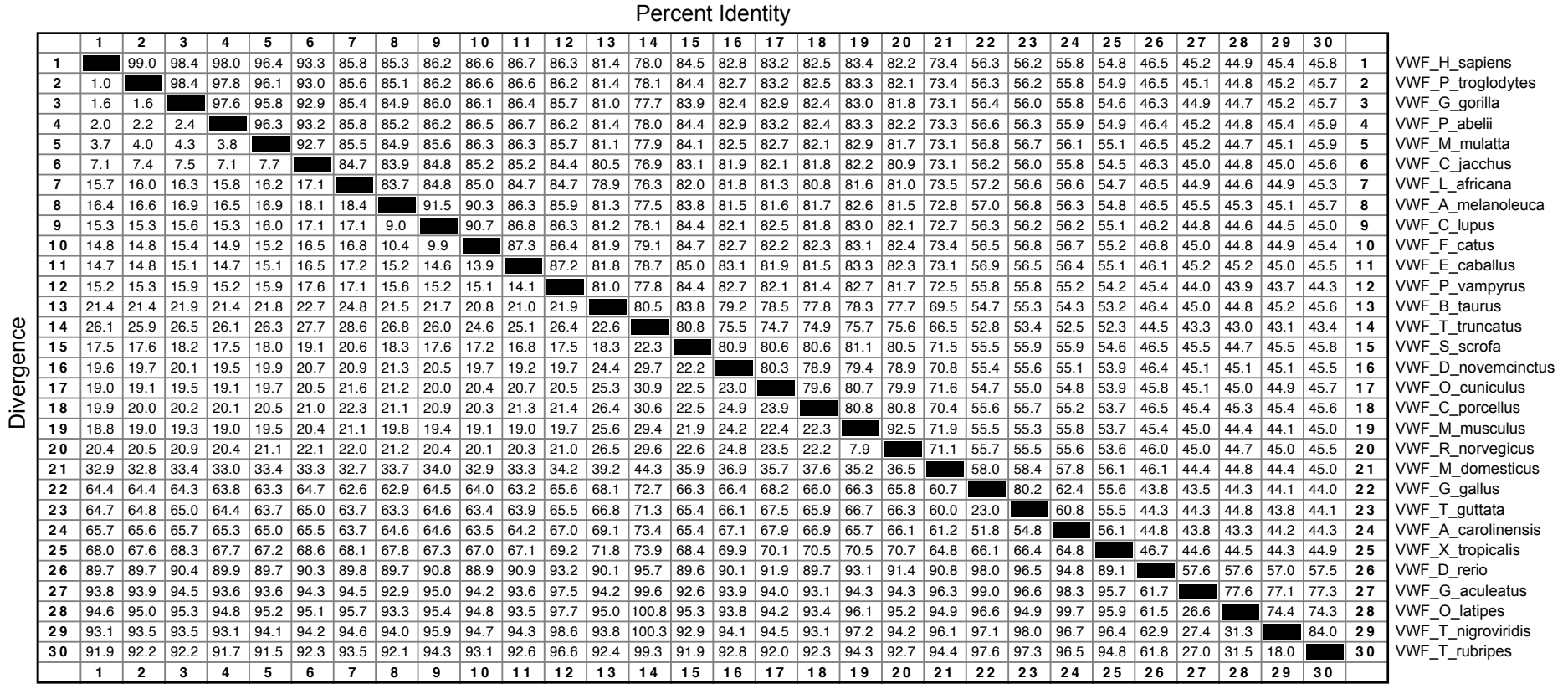

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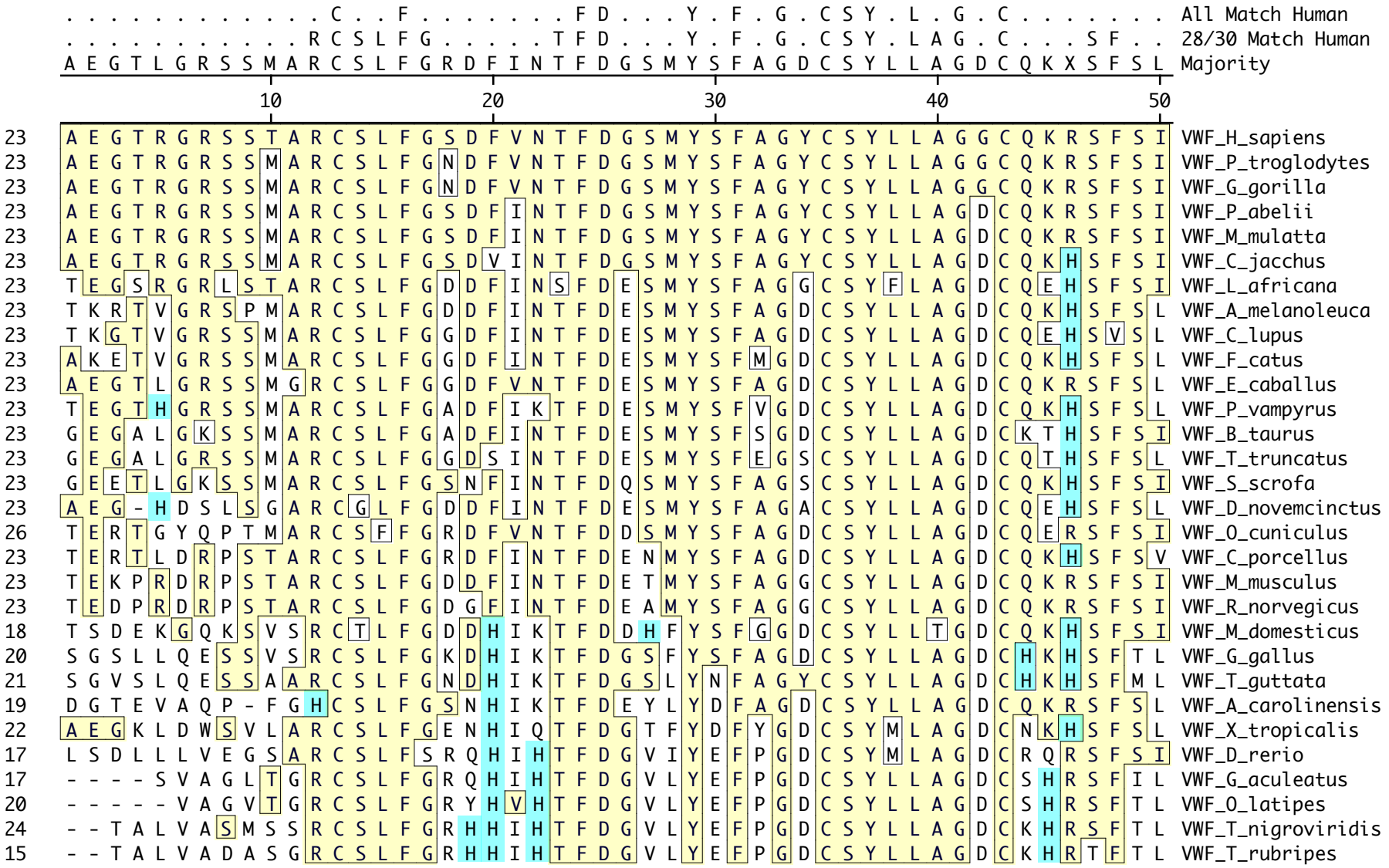
Figure S2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10
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21 S G V S L Q E S S A A R C S L F G N D H I K T F D G S L Y N F A G Y C S Y L L A G D C H K H S F M L VWF_T_guttata
19 D G T E V A Q P - F G H C S L F G S N H I K T F D E Y L Y D F A G D C S Y L L A G D C Q K R S F S L VWF_A_carolinensis
22 A E G K L D W S V L A R C S L F G E N H I Q T F D G T F Y D F Y G D C S Y M L A G D C N K H S F S L VWF_X_tropicalis
17 L S D L L L V E G S A R C S L F S R Q H I H T F D G V I Y E F P G D C S Y M L A G D C R Q R S F S I VWF_D_rerio
17 - - - - S V A G L T G R C S L F G R Q H I H T F D G V L Y E F P G D C S Y L L A G D C S H R S F I L VWF_G_aculeatus
20 - - - - - V A G V T G R C S L F G R Y H V H T F D G V L Y E F P G D C S Y L L A G D C S H R S F T L VWF_O_latipes
24 - - T A L V A S M S S R C S L F G R H H I H T F D G V L Y E F P G D C S Y L L A G D C K H R S F T L VWF_T_nigroviridis
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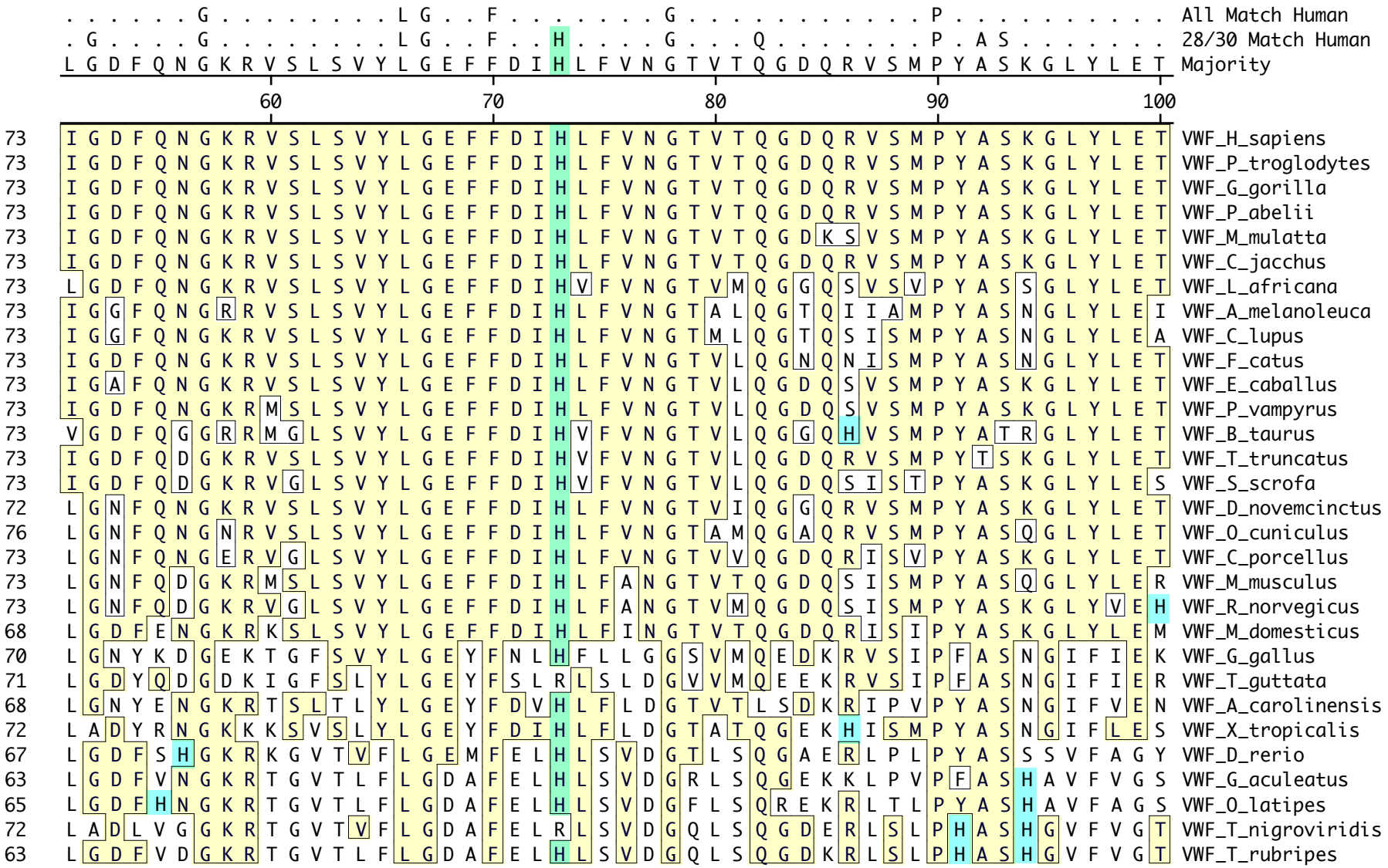
All Match Human
28/30 Match Human
Majority
60
70
80
90
100
VWF_H_sapiens
VWF_P_troglodytes
VWF_G_gorilla
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VWF_M_mulatta
VWF_C_jacchus
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VWF_A_melanoleuca
VWF_C_lupus
VWF_F_catus
VWF_E_caballus
VWF_P_vampyrus
VWF_B_taurus
VWF_T_truncatus
VWF_S_scrofa
VWF_D_novemcinctus
VWF_O_cuniculus
VWF_C_porcellus
VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
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VWF_T_nigroviridis
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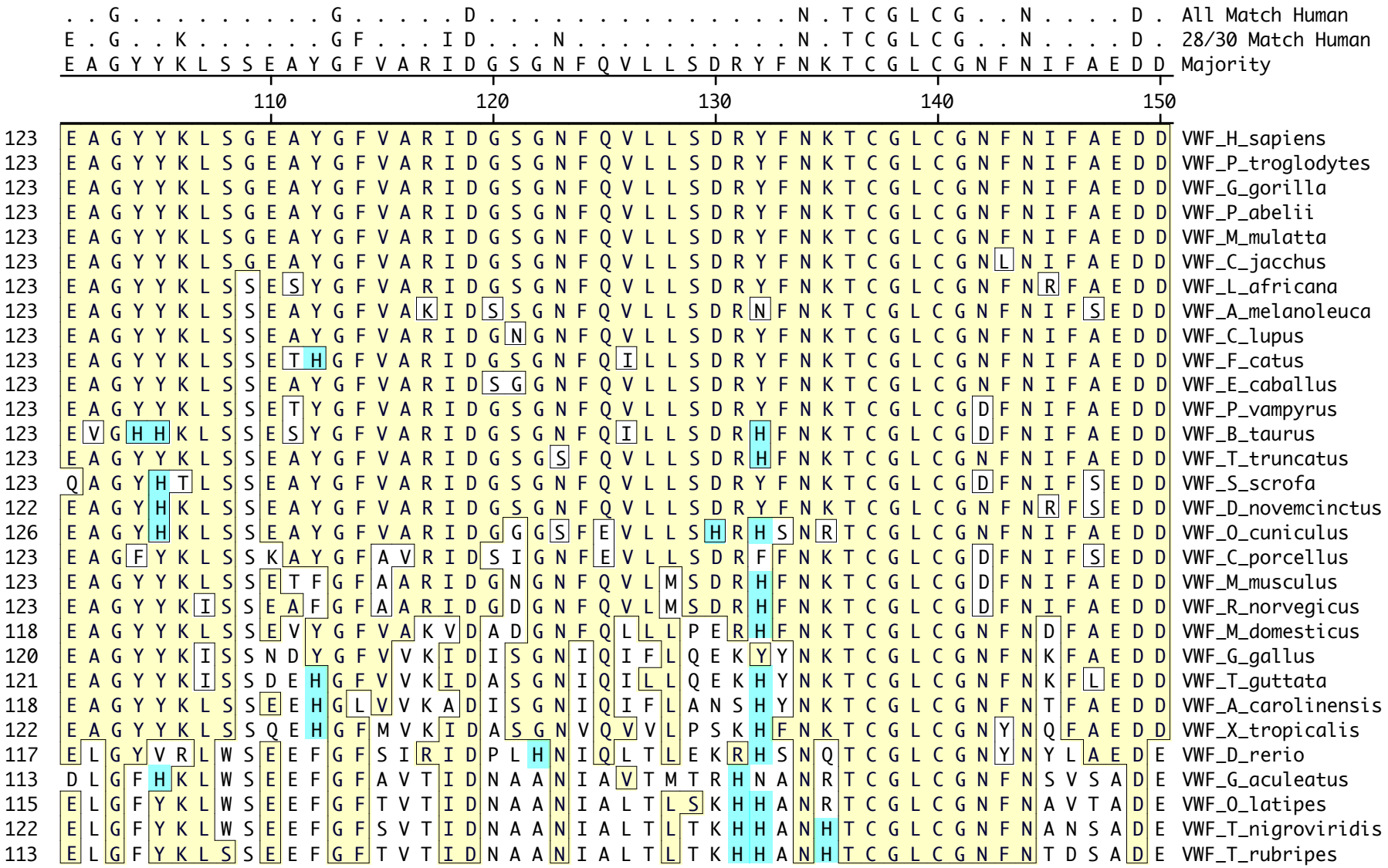
. . G . . . . . G . . . . . D . . . . N . T C G L C G . . N . . . . D . All Match Human
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E A G Y Y K L S S E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D Majority
110
120
130
140
150
123 E A G Y Y K L S G E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D VWF_H_sapiens
123 E A G Y Y K L S G E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D VWF_P_troglodytes
123 E A G Y Y K L S G E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D VWF_G_gorilla
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123 E A G Y Y K L S G E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N L N I F A E D D VWF_C_jacchus
123 E A G Y Y K L S S E S Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N R F A E D D VWF_L_africana
123 E A G Y Y K L S S E A Y G F V A K I D S S G N F Q V L L S D R N F N K T C G L C G N F N I F S E D D VWF_A_melanoleuca
123 E A G Y Y K L S S E A Y G F V A R I D G N G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D VWF_C_lupus
123 E A G Y Y K L S S E T H G F V A R I D G S G N F Q I L L S D R Y F N K T C G L C G N F N I F A E D D VWF_F_catus
123 E A G Y Y K L S S E A Y G F V A R I D S G G N F Q V L L S D R Y F N K T C G L C G N F N I F A E D D VWF_E_caballus
123 E A G Y Y K L S S E T Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G D F N I F A E D D VWF_P_vampyrus
123 E V G H H K L S S E S Y G F V A R I D G S G N F Q I L L S D R H F N K T C G L C G D F N I F A E D D VWF_B_taurus
123 E A G Y Y K L S S E A Y G F V A R I D G S G S F Q V L L S D R H F N K T C G L C G N F N I F A E D D VWF_T_truncatus
123 Q A G Y H T L S S E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G D F N I F S E D D VWF_S_scrofa
122 E A G Y H K L S S E A Y G F V A R I D G S G N F Q V L L S D R Y F N K T C G L C G N F N R F S E D D VWF_D_novemcinctus
126 E A G Y H K L S S E A Y G F V A R I D G G G S F E V L L S H R H S N R T C G L C G N F N I F A E D D VWF_O_cuniculus
123 E A G F Y K L S S K A Y G F A V R I D S I G N F E V L L S D R F F N K T C G L C G D F N I F S E D D VWF_C_porcellus
123 E A G Y Y K L S S E T F G F A A R I D G N G N F Q V L M S D R H F N K T C G L C G D F N I F A E D D VWF_M_musculus
123 E A G Y Y K I S S E A F G F A A R I D G D G N F Q V L M S D R H F N K T C G L C G D F N I F A E D D VWF_R_norvegicus
118 E A G Y Y K L S S E V Y G F V A K V D A D G N F Q L L L P E R H F N K T C G L C G N F N D F A E D D VWF_M_domesticus
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121 E A G Y Y K I S S D E H G F V V K I D A S G N I Q I L L Q E K H Y N K T C G L C G N F N K F L E D D VWF_T_guttata
118 E A G Y Y K L S S E E H G L V V K A D I S G N I Q I F L A N S H Y N K T C G L C G N F N T F A E D D VWF_A_carolinensis
122 E A G Y Y K L S S Q E H G F M V K I D A S G N V Q V V L P S K H F N K T C G L C G N Y N Q F A E D D VWF_X_tropicalis
117 E L G Y V R L W S E E F G F S I R I D P L H N I Q L T L E K R H S N Q T C G L C G N Y N Y L A E D E VWF_D_rerio
113 D L G F H K L W S E E F G F A V T I D N A A N I A V T M T R H N A N R T C G L C G N F N S V S A D E VWF_G_aculeatus
115 E L G F Y K L W S E E F G F T V T I D N A A N I A L T L S K H H A N R T C G L C G N F N A V T A D E VWF_O_latipes
122 E L G F Y K L W S E E F G F S V T I D N A A N I A L T L T K H H A N H T C G L C G N F N A N S A D E VWF_T_nigroviridis
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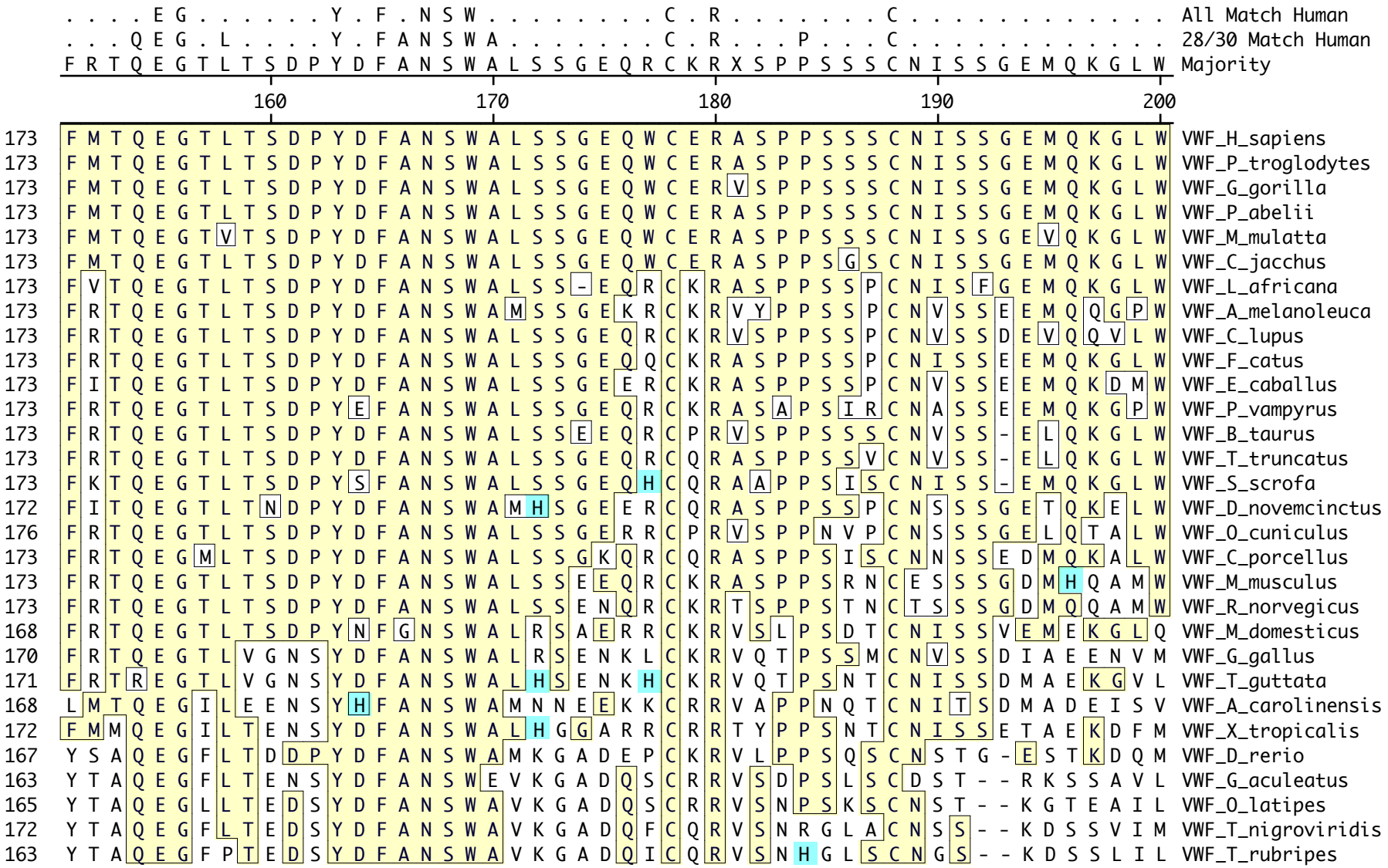
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. . . Q E G . L . . . . Y . F A N S W A . . . . . C . R . . . P . . . C . . . . 28/30 Match Human
F R T Q E G T L T S D P Y D F A N S W A L S S G E Q R C K R X S P P S S S C N I S S G E M Q K G L W Majority
160
170
180
190
200
173 F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R A S P P S S S C N I S S G E M Q K G L W VWF_H_sapiens
173 F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R A S P P S S S C N I S S G E M Q K G L W VWF_P_troglodytes
173 F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R V S P P S S S C N I S S G E M Q K G L W VWF_G_gorilla
173 F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R A S P P S S S C N I S S G E M Q K G L W VWF_P_abelii
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173 F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R A S P P S G S C N I S S G E M Q K G L W VWF_C_jacchus
173 F V T Q E G T L T S D P Y D F A N S W A L S S - E Q R C K R A S P P S S P C N I S F G E M Q K G L W VWF_L_africana
173 F R T Q E G T L T S D P Y D F A N S W A M S S G E K R C K R V Y P P S S P C N V S S E E M Q Q G P W VWF_A_melanoleuca
173 F R T Q E G T L T S D P Y D F A N S W A L S S G E Q R C K R V S P P S S P C N V S S D E V Q Q V L W VWF_C_lupus
173 F R T Q E G T L T S D P Y D F A N S W A L S S G E Q Q C K R A S P P S S P C N I S S E E M Q K G L W VWF_F_catus
173 F I T Q E G T L T S D P Y D F A N S W A L S S G E E R C K R A S P P S S P C N V S S E E M Q K D M W VWF_E_caballus
173 F R T Q E G T L T S D P Y E F A N S W A L S S G E Q R C K R A S A P S I R C N A S S E E M Q K G P W VWF_P_vampyrus
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173 F R T Q E G T L T S D P Y D F A N S W A L S S G E Q R C Q R A S P P S S V C N V S S - E L Q K G L W VWF_T_truncatus
173 F K T Q E G T L T S D P Y S F A N S W A L S S G E Q H C Q R A A P P S I S C N I S S - E M Q K G L W VWF_S_scrofa
172 F I T Q E G T L T N D P Y D F A N S W A M H S G E E R C Q R A S P P S S P C N S S S G E T Q K E L W VWF_D_novemcinctus
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173 F R T Q E G T L T S D P Y D F A N S W A L S S E E Q R C K R A S P P S R N C E S S S G D M H Q A M W VWF_M_musculus
173 F R T Q E G T L T S D P Y D F A N S W A L S S E N Q R C K R T S P P S T N C T S S S G D M Q Q A M W VWF_R_norvegicus
168 F R T Q E G T L T S D P Y N F G N S W A L R S A E R R C K R V S L P S D T C N I S S V E M E K G L Q VWF_M_domesticus
170 F R T Q E G T L V G N S Y D F A N S W A L R S E N K L C K R V Q T P S S M C N V S S D I A E E N V M VWF_G_gallus
171 F R T R E G T L V G N S Y D F A N S W A L H S E N K H C K R V Q T P S N T C N I S S D M A E K G V L VWF_T_guttata
168 L M T Q E G I L E E N S Y H F A N S W A M N N E E K K C R R V A P P N Q T C N I T S D M A D E I S V VWF_A_carolinensis
172 F M M Q E G I L T E N S Y D F A N S W A L H G G A R R C R R T Y P P S N T C N I S S E T A E K D F M VWF_X_tropicalis
167 Y S A Q E G F L T D D P Y D F A N S W A M K G A D E P C K R V L P P S Q S C N S T G - E S T K D Q M VWF_D_rerio
163 Y T A Q E G F L T E N S Y D F A N S W E V K G A D Q S C R R V S D P S L S C D S T - - R K S S A V L VWF_G_aculeatus
165 Y T A Q E G L L T E D S Y D F A N S W A V K G A D Q S C R R V S N P S K S C N S T - - K G T E A I L VWF_O_latipes
172 Y T A Q E G F L T E D S Y D F A N S W A V K G A D Q F C Q R V S N R G L A C N S S - - K D S S V I M VWF_T_nigroviridis
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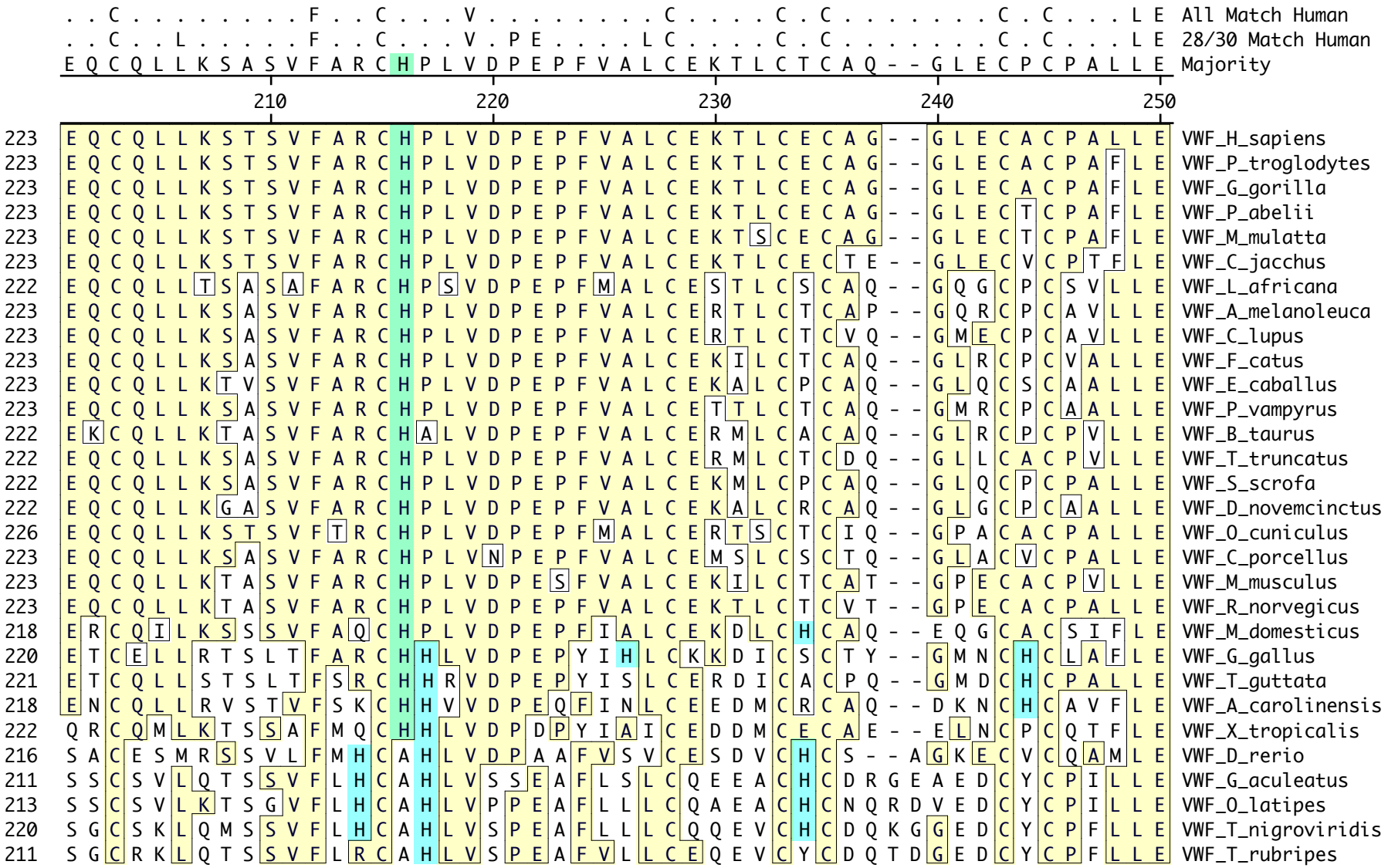
. . C . . . . . F . . C . . . V . . . . C . . . . C . C . . . . C . C . . . L E All Match Human
. . C . . L . . . . . F . . C . . . V . P E . . . . L C . . . . C . C . . . . C . C . . . L E 28/30 Match Human
E Q C Q L L K S A S V F A R C H P L V D P E P F V A L C E K T L C T C A Q - - G L E C P C P A L L E Majority
210
220
230
240
250
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T L C E C A G - - G L E C A C P A L L E VWF_H_sapiens
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T L C E C A G - - G L E C A C P A F L E VWF_P_troglodytes
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T L C E C A G - - G L E C A C P A F L E VWF_G_gorilla
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T L C E C A G - - G L E C T C P A F L E VWF_P_abelii
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T S C E C A G - - G L E C T C P A F L E VWF_M_mulatta
223 E Q C Q L L K S T S V F A R C H P L V D P E P F V A L C E K T L C E C T E - - G L E C V C P T F L E VWF_C_jacchus
222 E Q C Q L L T S A S A F A R C H P S V D P E P F M A L C E S T L C S C A Q - - G Q G C P C S V L L E VWF_L_africana
223 E Q C Q L L K S A S V F A R C H P L V D P E P F V A L C E R T L C T C A P - - G Q R C P C A V L L E VWF_A_melanoleuca
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223 E Q C Q L L K T V S V F A R C H P L V D P E P F V A L C E K A L C P C A Q - - G L Q C S C A A L L E VWF_E_caballus
223 E Q C Q L L K S A S V F A R C H P L V D P E P F V A L C E T T L C T C A Q - - G M R C P C A A L L E VWF_P_vampyrus
222 E K C Q L L K T A S V F A R C H A L V D P E P F V A L C E R M L C A C A Q - - G L R C P C P V L L E VWF_B_taurus
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222 E Q C Q L L K S A S V F A R C H P L V D P E P F V A L C E K M L C P C A Q - - G L Q C P C P A L L E VWF_S_scrofa
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223 E Q C Q L L K T A S V F A R C H P L V D P E S F V A L C E K I L C T C A T - - G P E C A C P V L L E VWF_M_musculus
223 E Q C Q L L K T A S V F A R C H P L V D P E P F V A L C E K T L C T C V T - - G P E C A C P A L L E VWF_R_norvegicus
218 E R C Q I L K S S S V F A Q C H P L V D P E P F I A L C E K D L C H C A Q - - E Q G C A C S I F L E VWF_M_domesticus
220 E T C E L L R T S L T F A R C H H L V D P E P Y I H L C K K D I C S C T Y - - G M N C H C L A F L E VWF_G_gallus
221 E T C Q L L S T S L T F S R C H H R V D P E P Y I S L C E R D I C A C P Q - - G M D C H C P A L L E VWF_T_guttata
218 E N C Q L L R V S T V F S K C H H V V D P E Q F I N L C E E D M C R C A Q - - D K N C H C A V F L E VWF_A_carolinensis
222 Q R C Q M L K T S S A F M Q C H H L V D P D P Y I A I C E D D M C E C A E - - E L N C P C Q T F L E VWF_X_tropicalis
216 S A C E S M R S S V L F M H C A H L V D P A A F V S V C E S D V C H C S - - A G K E C V C Q A M L E VWF_D_rerio
211 S S C S V L Q T S S V F L H C A H L V S S E A F L S L C Q E E A C H C D R G E A E D C Y C P I L L E VWF_G_aculeatus
213 S S C S V L K T S G V F L H C A H L V P P E A F L L L C Q A E A C H C N Q R D V E D C Y C P I L L E VWF_O_latipes
220 S G C S K L Q M S S V F L H C A H L V S P E A F L L L C Q Q E V C H C D Q K G G E D C Y C P F L L E VWF_T_nigroviridis
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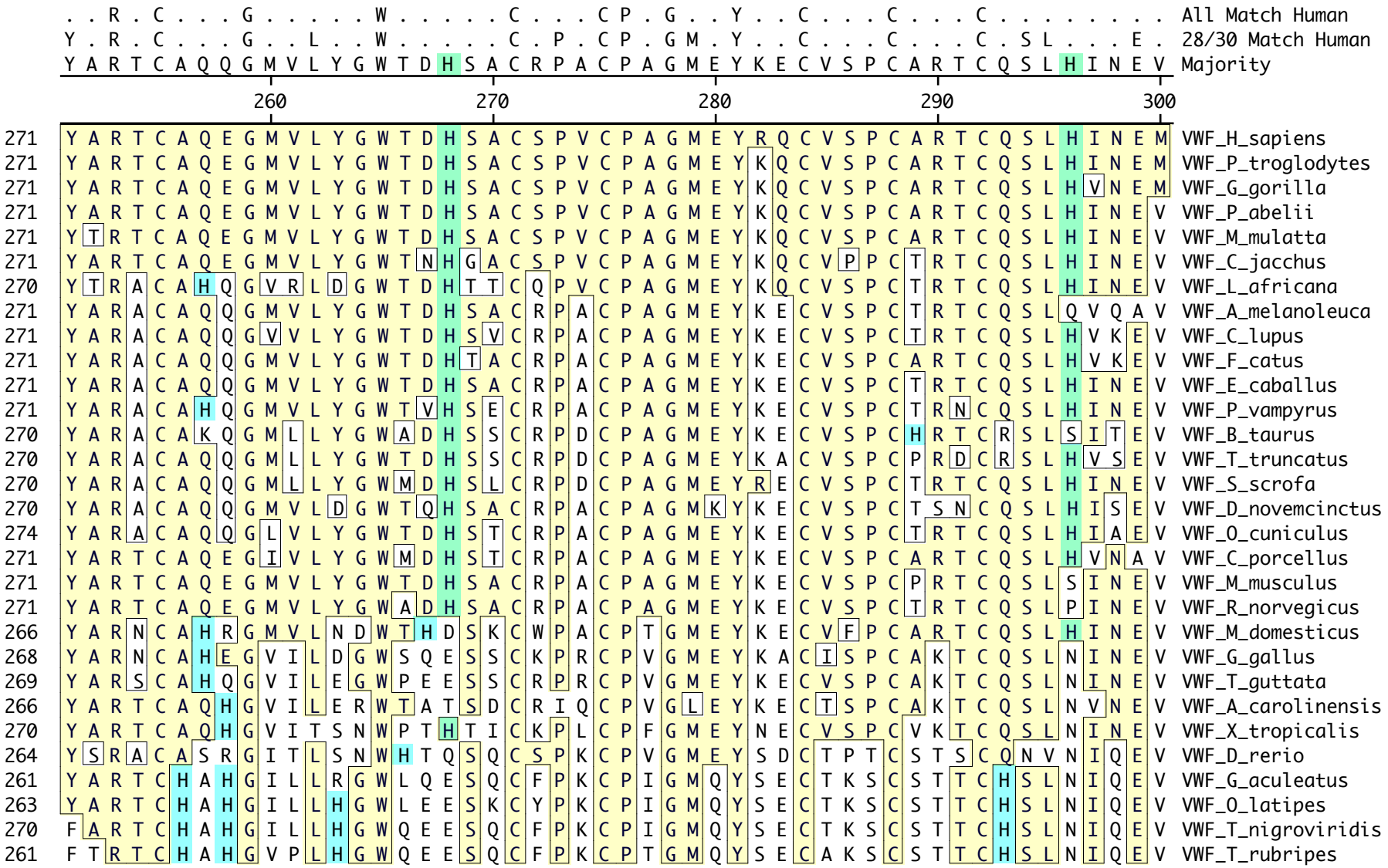
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Y . R . C . . . G . . L . . W . . . . . C . P . C P . G M . Y . . C . . . C . . . C . S L . . . E . 28/30 Match Human
Y A R T C A Q Q G M V L Y G W T D H S A C R P A C P A G M E Y K E C V S P C A R T C Q S L H I N E V Majority
260
270
280
290
300
271 Y A R T C A Q E G M V L Y G W T D H S A C S P V C P A G M E Y R Q C V S P C A R T C Q S L H I N E M VWF_H_sapiens
271 Y A R T C A Q E G M V L Y G W T D H S A C S P V C P A G M E Y K Q C V S P C A R T C Q S L H I N E M VWF_P_troglodytes
271 Y A R T C A Q E G M V L Y G W T D H S A C S P V C P A G M E Y K Q C V S P C A R T C Q S L H V N E M VWF_G_gorilla
271 Y A R T C A Q E G M V L Y G W T D H S A C S P V C P A G M E Y K Q C V S P C A R T C Q S L H I N E V VWF_P_abelii
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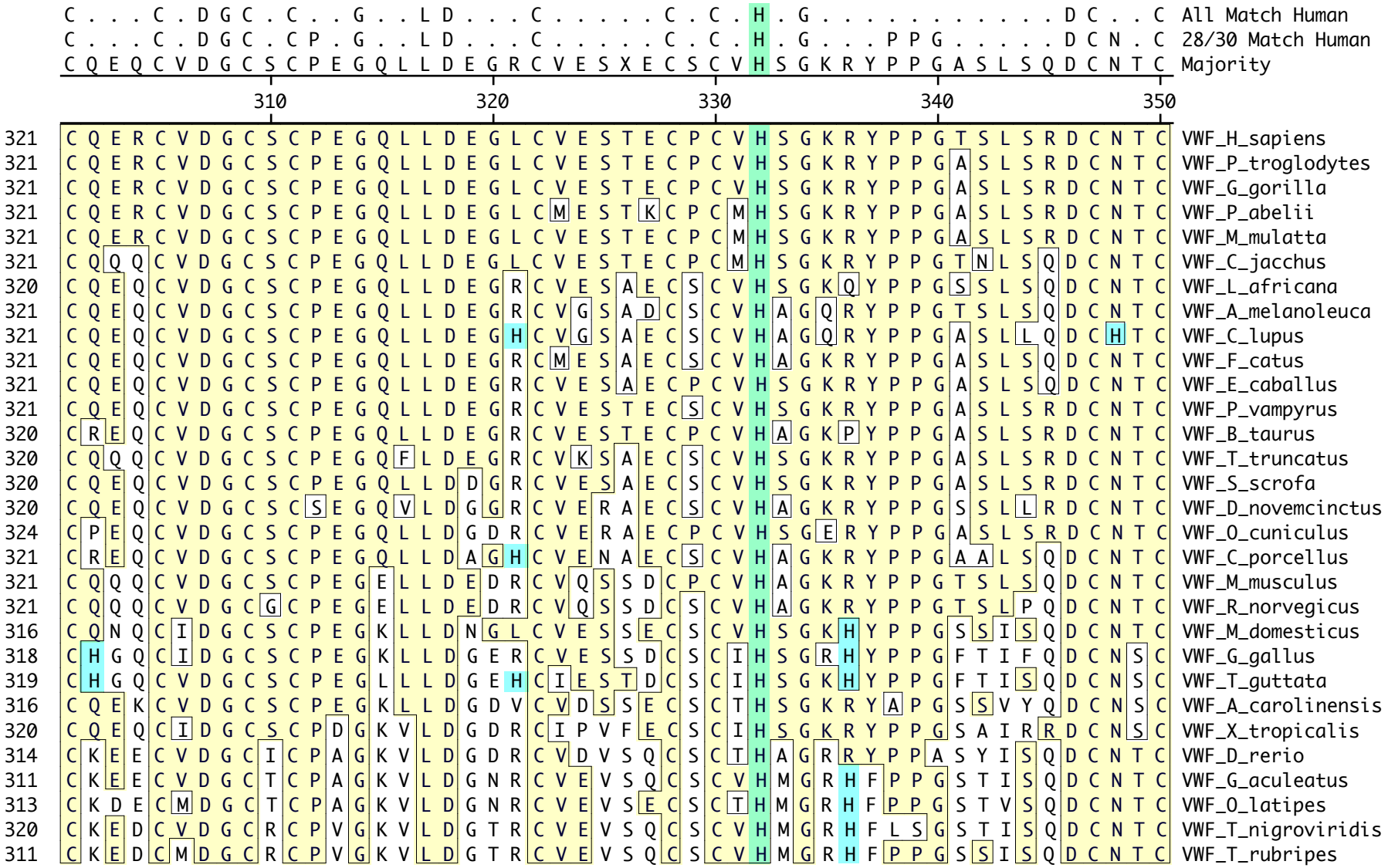
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Majority
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VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
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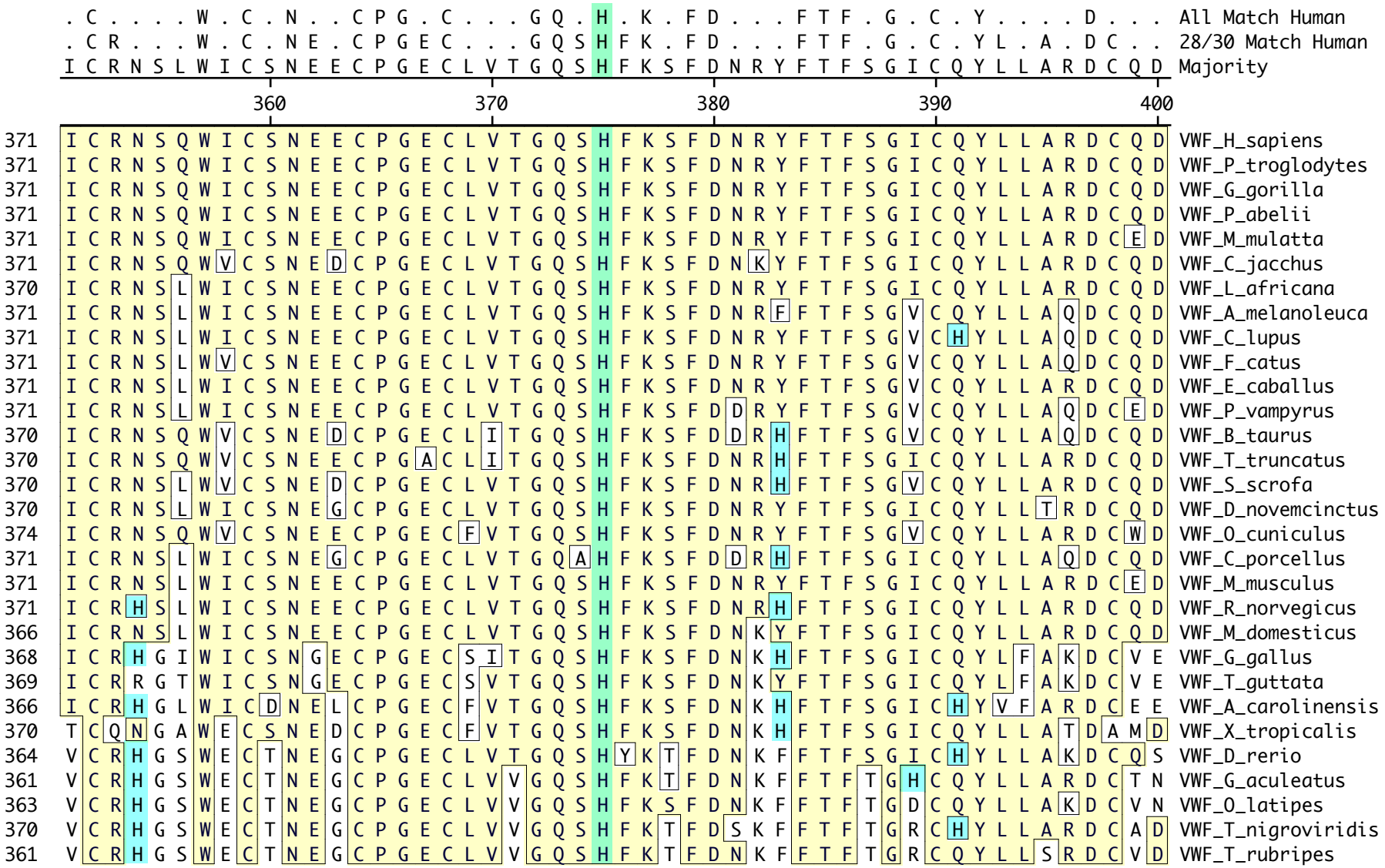
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380
390
400
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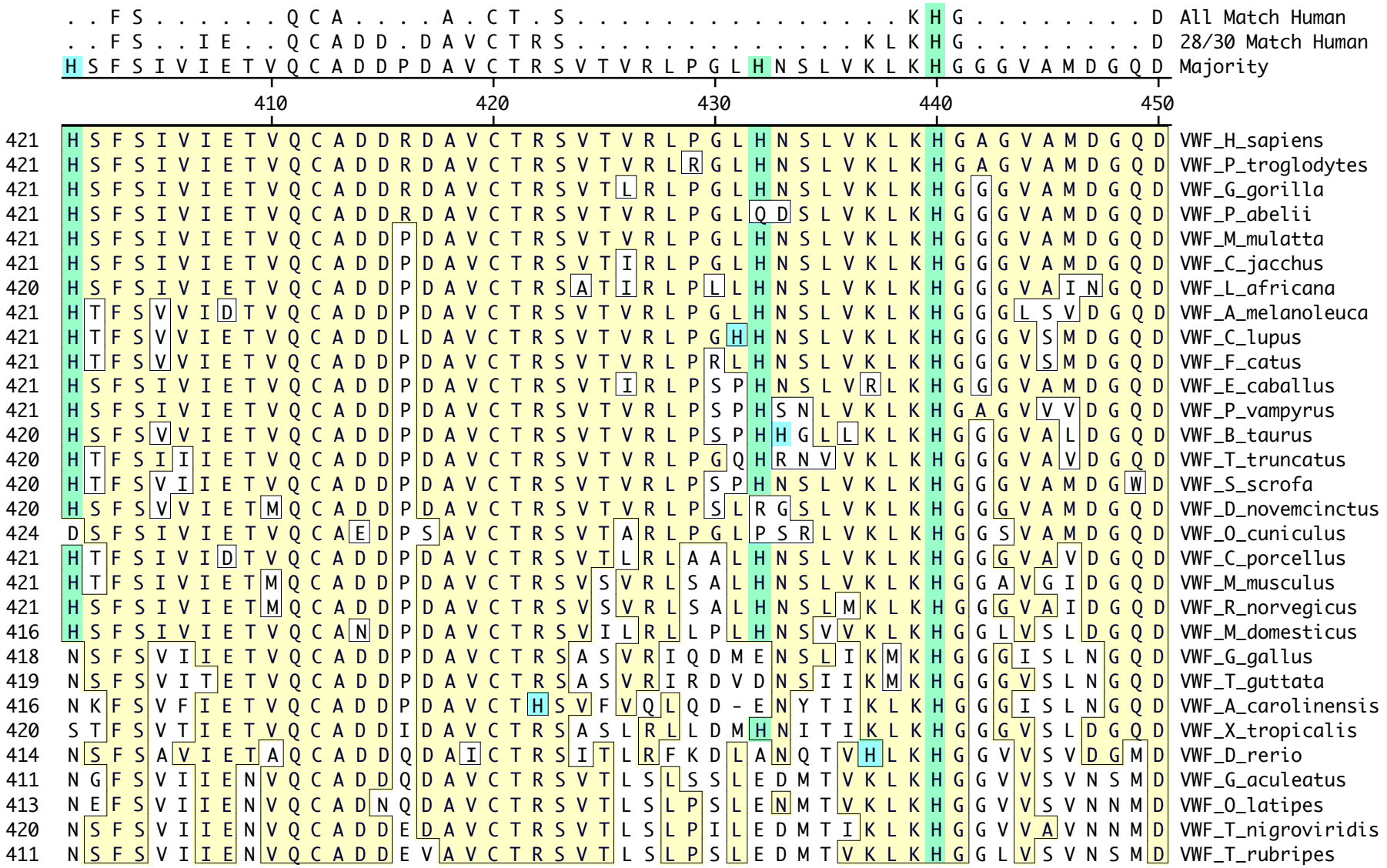
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420 N S F S V I I E N V Q C A D D E D A V C T R S V T L S L P I L E D M T I K L K H G G V V A V N N M D VWF_T_nigroviridis
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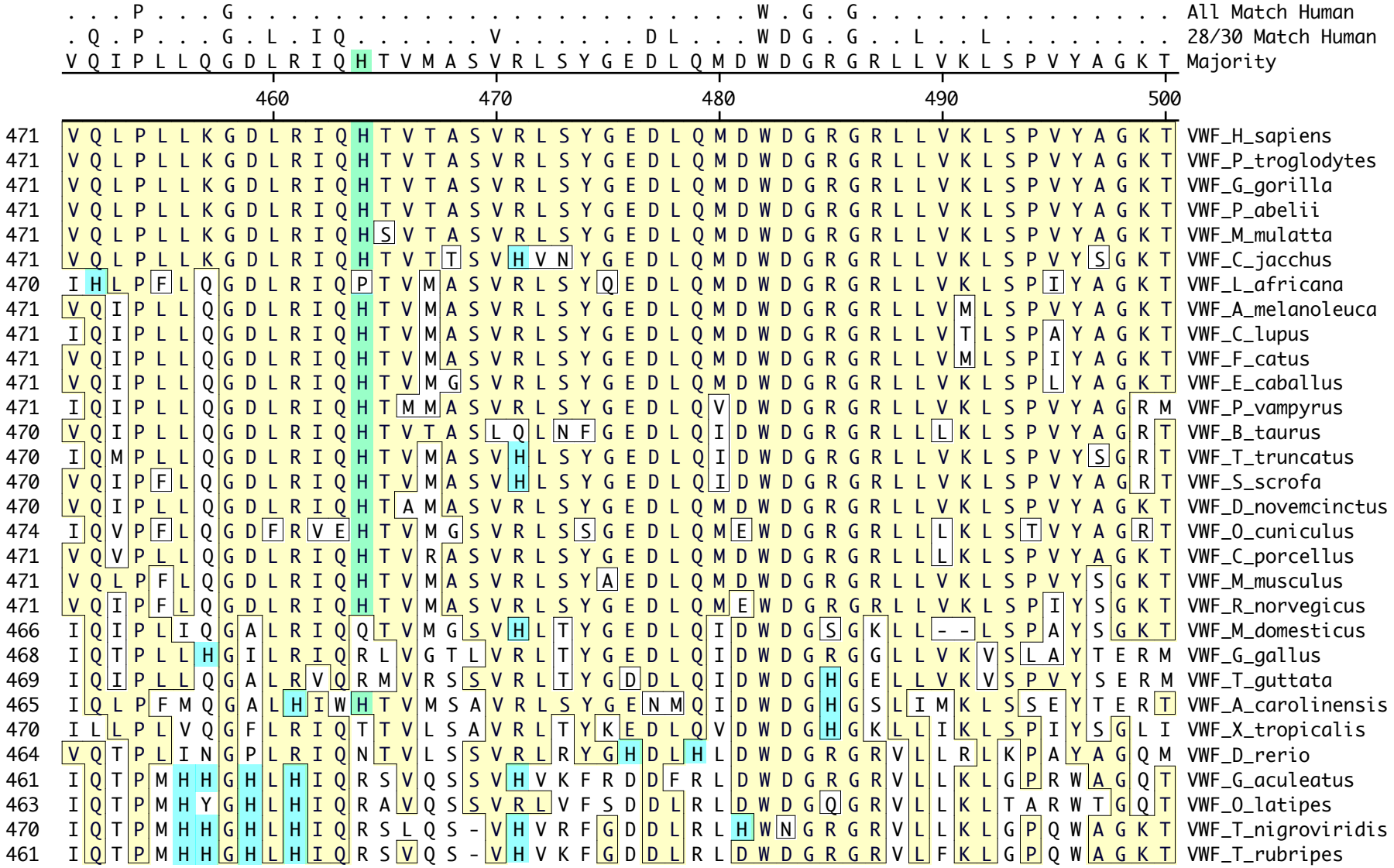
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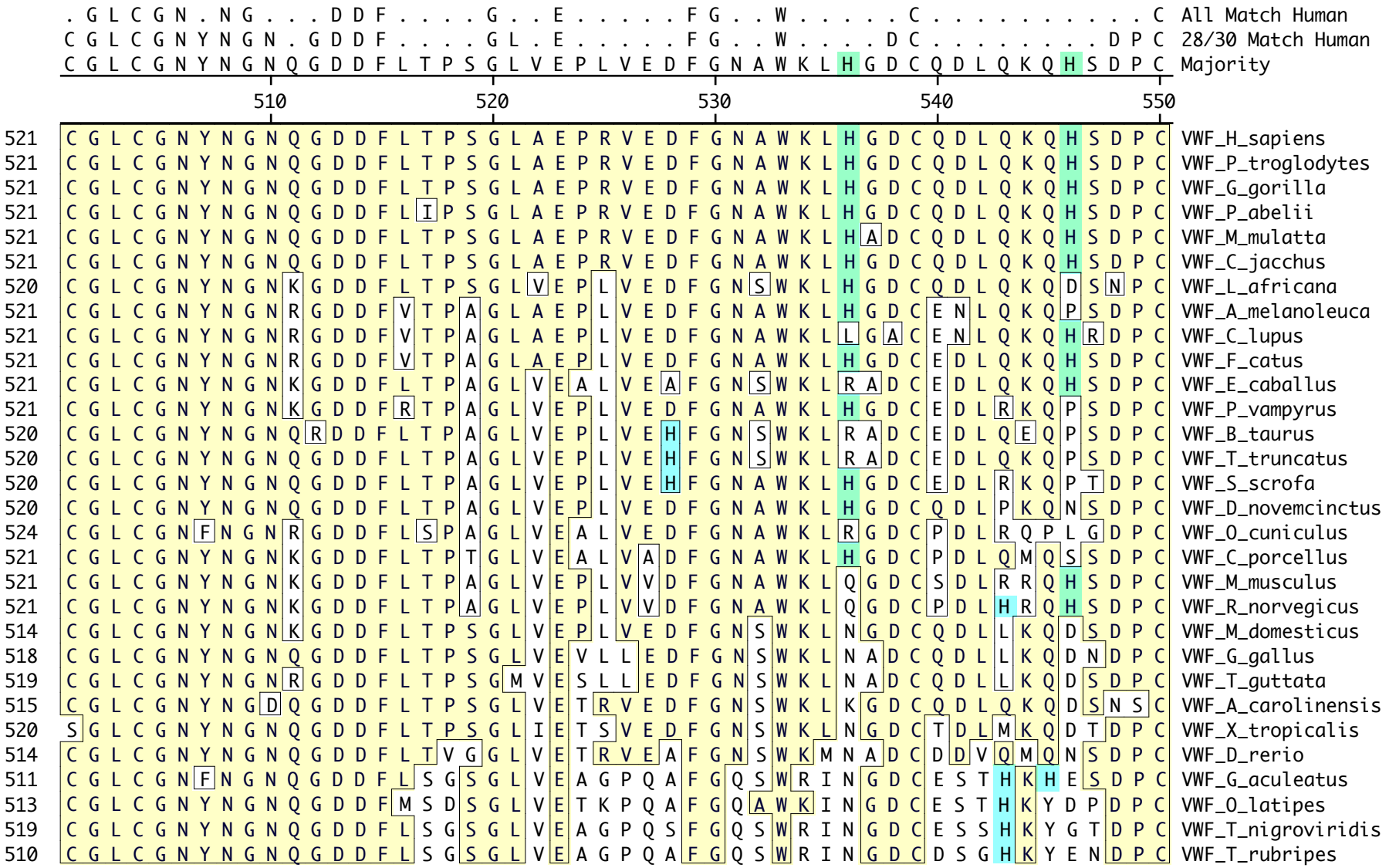
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530
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521 C G L C G N Y N G N K G D D F L T P T G L V E A L V A D F G N A W K L H G D C P D L Q M Q S S D P C VWF_C_porcellus
521 C G L C G N Y N G N K G D D F L T P A G L V E P L V V D F G N A W K L Q G D C S D L R R Q H S D P C VWF_M_musculus
521 C G L C G N Y N G N K G D D F L T P A G L V E P L V V D F G N A W K L Q G D C P D L H R Q H S D P C VWF_R_norvegicus
514 C G L C G N Y N G N K G D D F L T P S G L V E P L V E D F G N S W K L N G D C Q D L L K Q D S D P C VWF_M_domesticus
518 C G L C G N Y N G N Q G D D F L T P S G L V E V L L E D F G N S W K L N A D C Q D L L K Q D N D P C VWF_G_gallus
519 C G L C G N Y N G N R G D D F L T P S G M V E S L L E D F G N S W K L N A D C Q D L L K Q D S D P C VWF_T_guttata
515 C G L C G N Y N G D Q G D D F L T P S G L V E T R V E D F G N S W K L K G D C Q D L Q K Q D S N S C VWF_A_carolinensis
520 S G L C G N Y N G N Q G D D F L T P S G L I E T S V E D F G N S W K L N G D C T D L M K Q D T D P C VWF_X_tropicalis
514 C G L C G N Y N G N Q G D D F L T V G G L V E T R V E A F G N S W K M N A D C D D V Q M Q N S D P C VWF_D_rerio
511 C G L C G N F N G N Q G D D F L S G S G L V E A G P Q A F G Q S W R I N G D C E S T H K H E S D P C VWF_G_aculeatus
513 C G L C G N Y N G N Q G D D F M S D S G L V E T K P Q A F G Q A W K I N G D C E S T H K Y D P D P C VWF_O_latipes
519 C G L C G N Y N G N Q G D D F L S G S G L V E A G P Q S F G Q S W R I N G D C E S S H K Y G T D P C VWF_T_nigroviridis
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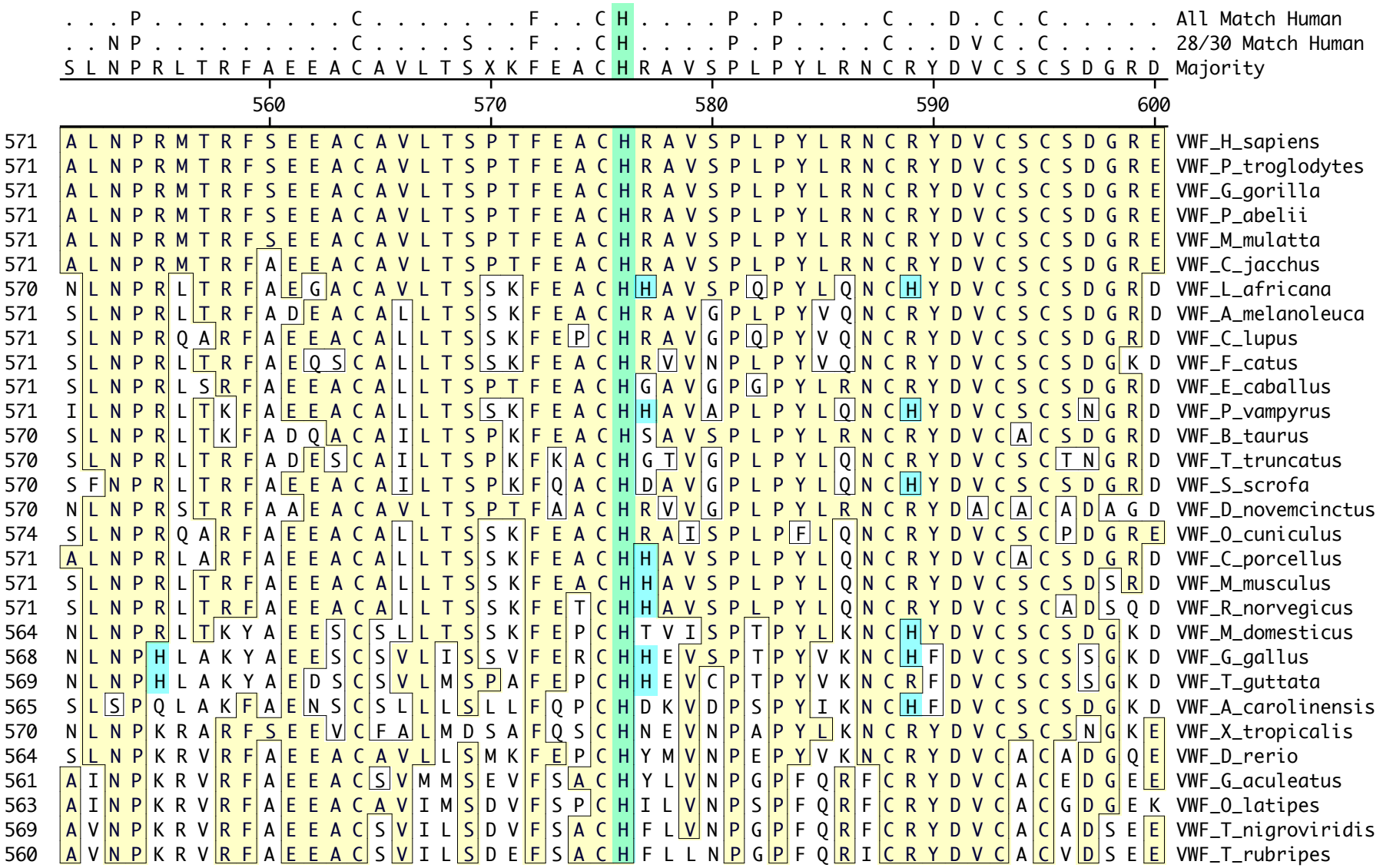
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. . N P . . . . . C . . . . S . . F . . C H . . . . P . P . . . . C . . D V C . C . . . . . 28/30 Match Human
S L N P R L T R F A E E A C A V L T S X K F E A C H R A V S P L P Y L R N C R Y D V C S C S D G R D Majority
560
570
580
590
600
571 A L N P R M T R F S E E A C A V L T S P T F E A C H R A V S P L P Y L R N C R Y D V C S C S D G R E VWF_H_sapiens
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571 S L N P R L T R F A E Q S C A L L T S S K F E A C H R V V N P L P Y V Q N C R Y D V C S C S D G K D VWF_F_catus
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571 A L N P R L A R F A E E A C A L L T S S K F E A C H H A V S P L P Y L Q N C R Y D V C A C S D G R D VWF_C_porcellus
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568 N L N P H L A K Y A E E S C S V L I S S V F E R C H H E V S P T P Y V K N C H F D V C S C S S G K D VWF_G_gallus
569 N L N P H L A K Y A E D S C S V L M S P A F E P C H H E V C P T P Y V K N C R F D V C S C S S G K D VWF_T_guttata
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570 N L N P K R A R F S E E V C F A L M D S A F Q S C H N E V N P A P Y L K N C R Y D V C S C S N G K E VWF_X_tropicalis
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561 A I N P K R V R F A E E A C S V M M S E V F S A C H Y L V N P G P F Q R F C R Y D V C A C E D G E E VWF_G_aculeatus
563 A I N P K R V R F A E E A C A V I M S D V F S P C H I L V N P S P F Q R F C R Y D V C A C G D G E K VWF_O_latipes
569 A V N P K R V R F A E E A C S V I L S D V F S A C H F L V N P G P F Q R F C R Y D V C A C A D S E E VWF_T_nigroviridis
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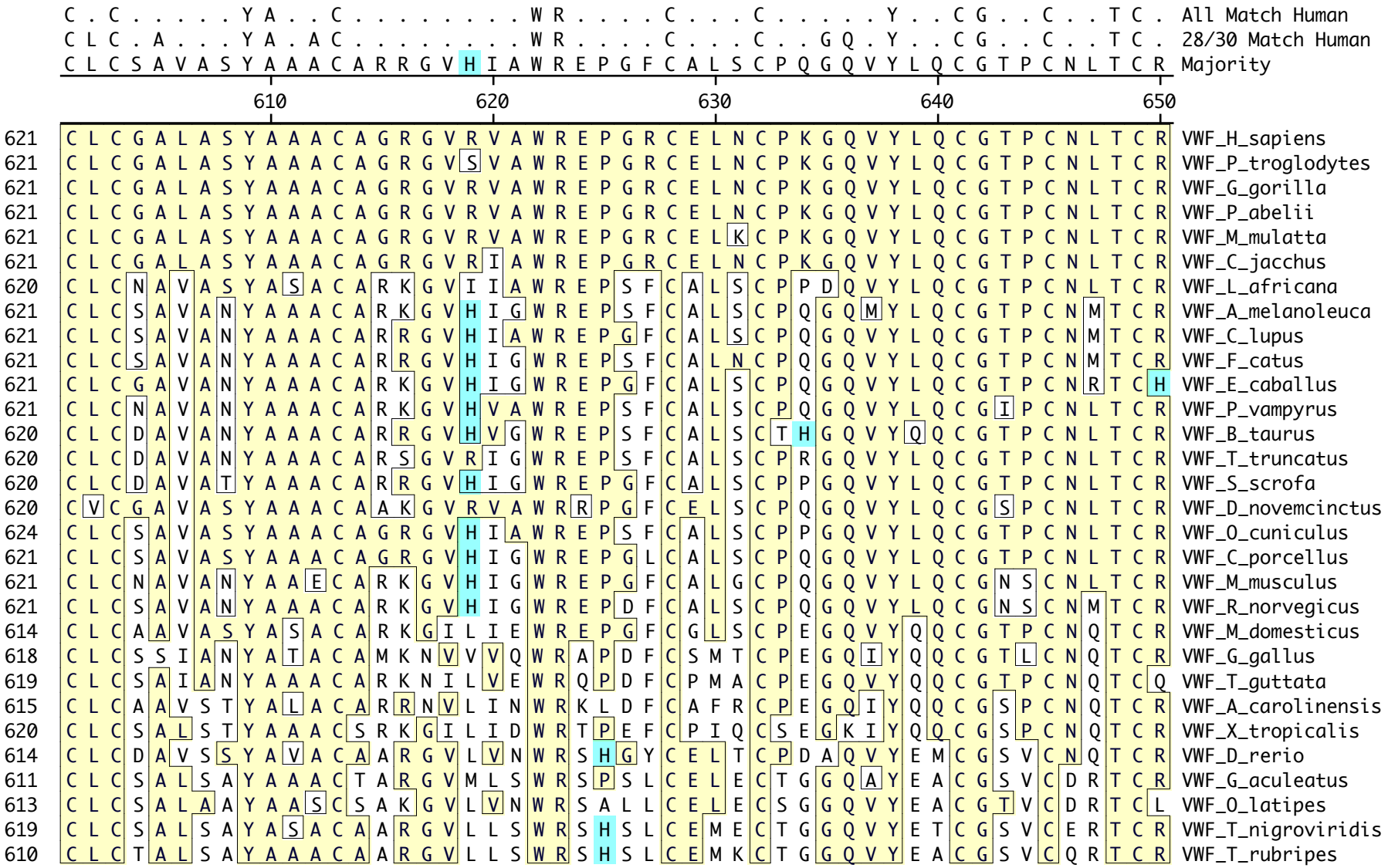
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C L C S A V A S Y A A A C A R R G V H I A W R E P G F C A L S C P Q G Q V Y L Q C G T P C N L T C R Majority
610
620
630
640
650
621 C L C G A L A S Y A A A C A G R G V R V A W R E P G R C E L N C P K G Q V Y L Q C G T P C N L T C R VWF_H_sapiens
621 C L C G A L A S Y A A A C A G R G V S V A W R E P G R C E L N C P K G Q V Y L Q C G T P C N L T C R VWF_P_troglodytes
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621 C L C G A L A S Y A A A C A G R G V R V A W R E P G R C E L N C P K G Q V Y L Q C G T P C N L T C R VWF_P_abelii
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621 C L C S A V A N Y A A A C A R K G V H I G W R E P S F C A L S C P Q G Q M Y L Q C G T P C N M T C R VWF_A_melanoleuca
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620 C V C G A V A S Y A A A C A A K G V R V A W R R P G F C E L S C P Q G Q V Y L Q C G S P C N L T C R VWF_D_novemcinctus
624 C L C S A V A S Y A A A C A G R G V H I A W R E P S F C A L S C P P G Q V Y L Q C G T P C N L T C R VWF_O_cuniculus
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614 C L C A A V A S Y A S A C A R K G I L I E W R E P G F C G L S C P E G Q V Y Q Q C G T P C N Q T C R VWF_M_domesticus
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615 C L C A A V S T Y A L A C A R R N V L I N W R K L D F C A F R C P E G Q I Y Q Q C G S P C N Q T C R VWF_A_carolinensis
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614 C L C D A V S S Y A V A C A A R G V L V N W R S H G Y C E L T C P D A Q V Y E M C G S V C N Q T C R VWF_D_rerio
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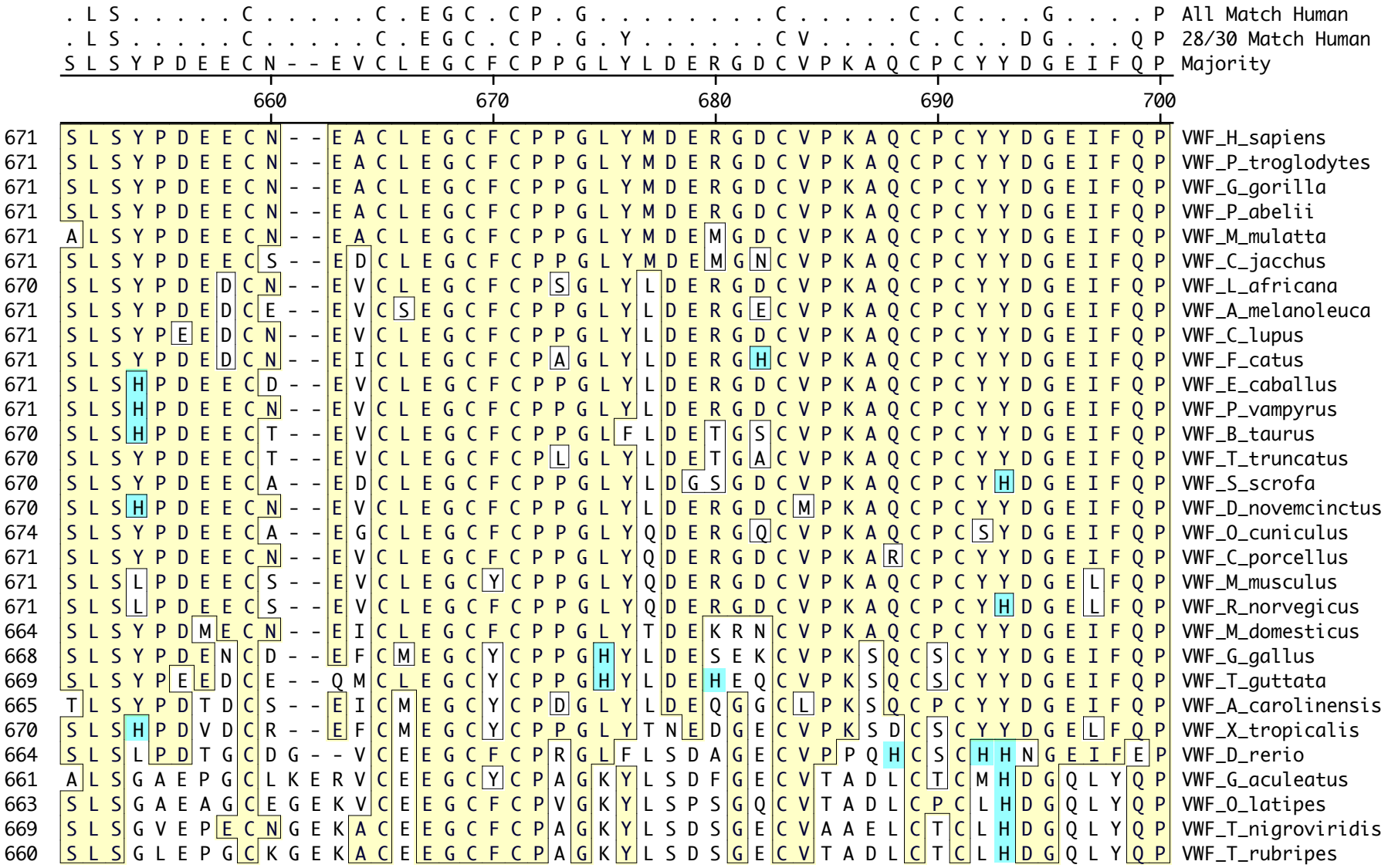
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. L S . . . . . C . . . . . C . E G C . C P . G . Y . . . . . C V . . . . C . C . . D G . . . Q P 28/30 Match Human
S L S Y P D E E C N - - E V C L E G C F C P P G L Y L D E R G D C V P K A Q C P C Y Y D G E I F Q P Majority
660
670
680
690
700
671 S L S Y P D E E C N - - E A C L E G C F C P P G L Y M D E R G D C V P K A Q C P C Y Y D G E I F Q P VWF_H_sapiens
671 S L S Y P D E E C N - - E A C L E G C F C P P G L Y M D E R G D C V P K A Q C P C Y Y D G E I F Q P VWF_P_troglodytes
671 S L S Y P D E E C N - - E A C L E G C F C P P G L Y M D E R G D C V P K A Q C P C Y Y D G E I F Q P VWF_G_gorilla
671 S L S Y P D E E C N - - E A C L E G C F C P P G L Y M D E R G D C V P K A Q C P C Y Y D G E I F Q P VWF_P_abelii
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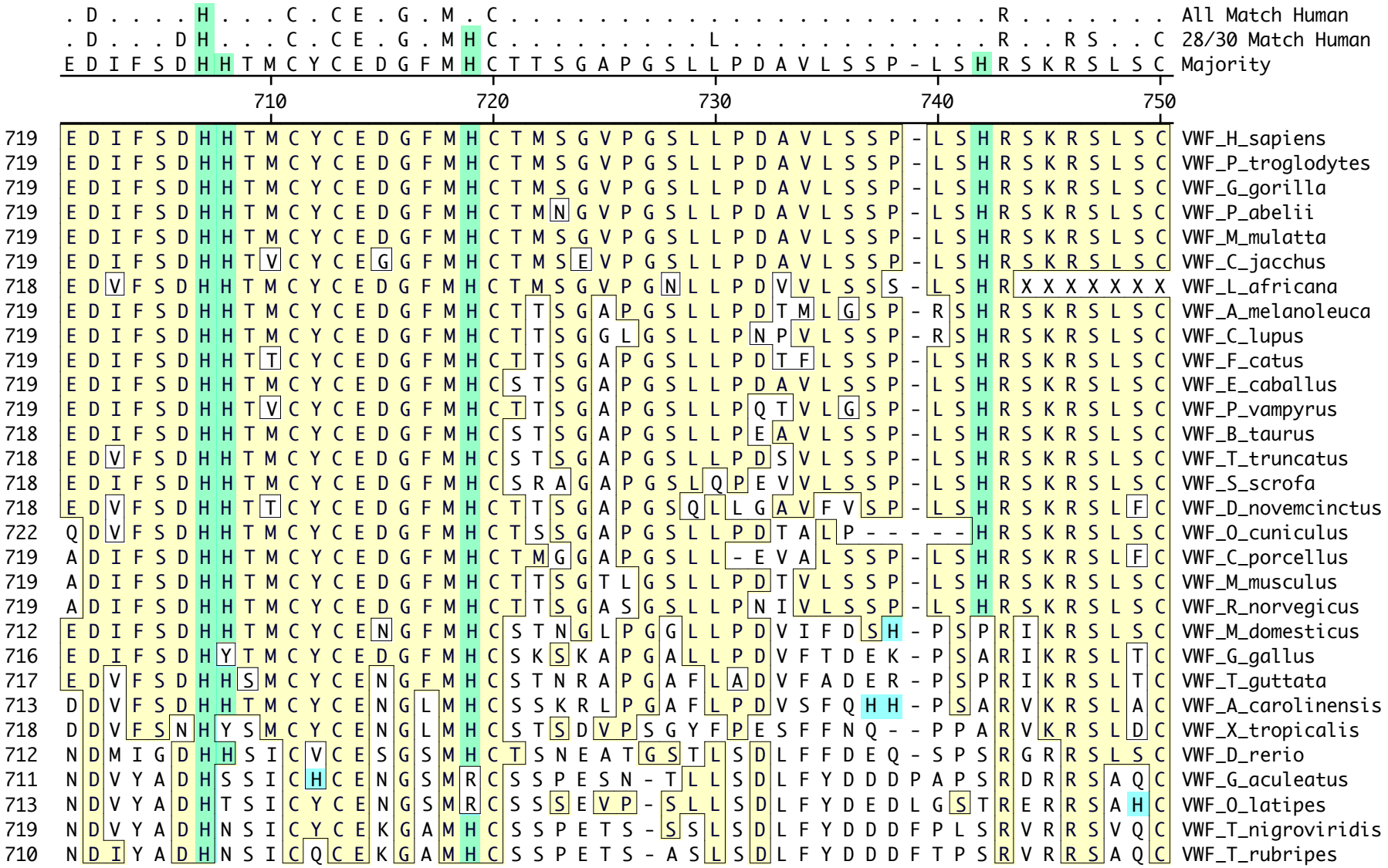
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. D . . . D H . . . C . C E . G . M H C . . . . L . . . . R . . R S . . C 28/30 Match Human
E D I F S D H H T M C Y C E D G F M H C T T S G A P G S L L P D A V L S S P - L S H R S K R S L S C Majority
710
720
730
740
750
719 E D I F S D H H T M C Y C E D G F M H C T M S G V P G S L L P D A V L S S P - L S H R S K R S L S C VWF_H_sapiens
719 E D I F S D H H T M C Y C E D G F M H C T M S G V P G S L L P D A V L S S P - L S H R S K R S L S C VWF_P_troglodytes
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719 E D I F S D H H T M C Y C E D G F M H C T T S G G L G S L L P N P V L S S P - R S H R S K R S L S C VWF_C_lupus
719 E D I F S D H H T T C Y C E D G F M H C T T S G A P G S L L P D T F L S S P - L S H R S K R S L S C VWF_F_catus
719 E D I F S D H H T M C Y C E D G F M H C S T S G A P G S L L P D A V L S S P - L S H R S K R S L S C VWF_E_caballus
719 E D I F S D H H T V C Y C E D G F M H C T T S G A P G S L L P Q T V L G S P - L S H R S K R S L S C VWF_P_vampyrus
718 E D I F S D H H T M C Y C E D G F M H C S T S G A P G S L L P E A V L S S P - L S H R S K R S L S C VWF_B_taurus
718 E D V F S D H H T M C Y C E D G F M H C S T S G A P G S L L P D S V L S S P - L S H R S K R S L S C VWF_T_truncatus
718 E D I F S D H H T M C Y C E D G F M H C S R A G A P G S L Q P E V V L S S P - L S H R S K R S L S C VWF_S_scrofa
718 E D V F S D H H T T C Y C E D G F M H C T T S G A P G S Q L L G A V F V S P - L S H R S K R S L F C VWF_D_novemcinctus
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719 A D I F S D H H T M C Y C E D G F M H C T M G G A P G S L L - E V A L S S P - L S H R S K R S L F C VWF_C_porcellus
719 A D I F S D H H T M C Y C E D G F M H C T T S G T L G S L L P D T V L S S P - L S H R S K R S L S C VWF_M_musculus
719 A D I F S D H H T M C Y C E D G F M H C T T S G A S G S L L P N I V L S S P - L S H R S K R S L S C VWF_R_norvegicus
712 E D I F S D H H T M C Y C E N G F M H C S T N G L P G G L L P D V I F D S H - P S P R I K R S L S C VWF_M_domesticus
716 E D I F S D H Y T M C Y C E D G F M H C S K S K A P G A L L P D V F T D E K - P S A R I K R S L T C VWF_G_gallus
717 E D V F S D H H S M C Y C E N G F M H C S T N R A P G A F L A D V F A D E R - P S P R I K R S L T C VWF_T_guttata
713 D D V F S D H H T M C Y C E N G L M H C S S K R L P G A F L P D V S F Q H H - P S A R V K R S L A C VWF_A_carolinensis
718 D D V F S N H Y S M C Y C E N G L M H C S T S D V P S G Y F P E S F F N Q - - P P A R V K R S L D C VWF_X_tropicalis
712 N D M I G D H H S I C V C E S G S M H C T S N E A T G S T L S D L F F D E Q - S P S R G R R S L S C VWF_D_rerio
711 N D V Y A D H S S I C H C E N G S M R C S S P E S N - T L L S D L F Y D D D P A P S R D R R S A Q C VWF_G_aculeatus
713 N D V Y A D H T S I C Y C E N G S M R C S S S E V P - S L L S D L F Y D E D L G S T R E R R S A H C VWF_O_latipes
719 N D V Y A D H N S I C Y C E K G A M H C S S P E T S - S S L S D L F Y D D D F P L S R V R R S V Q C VWF_T_nigroviridis
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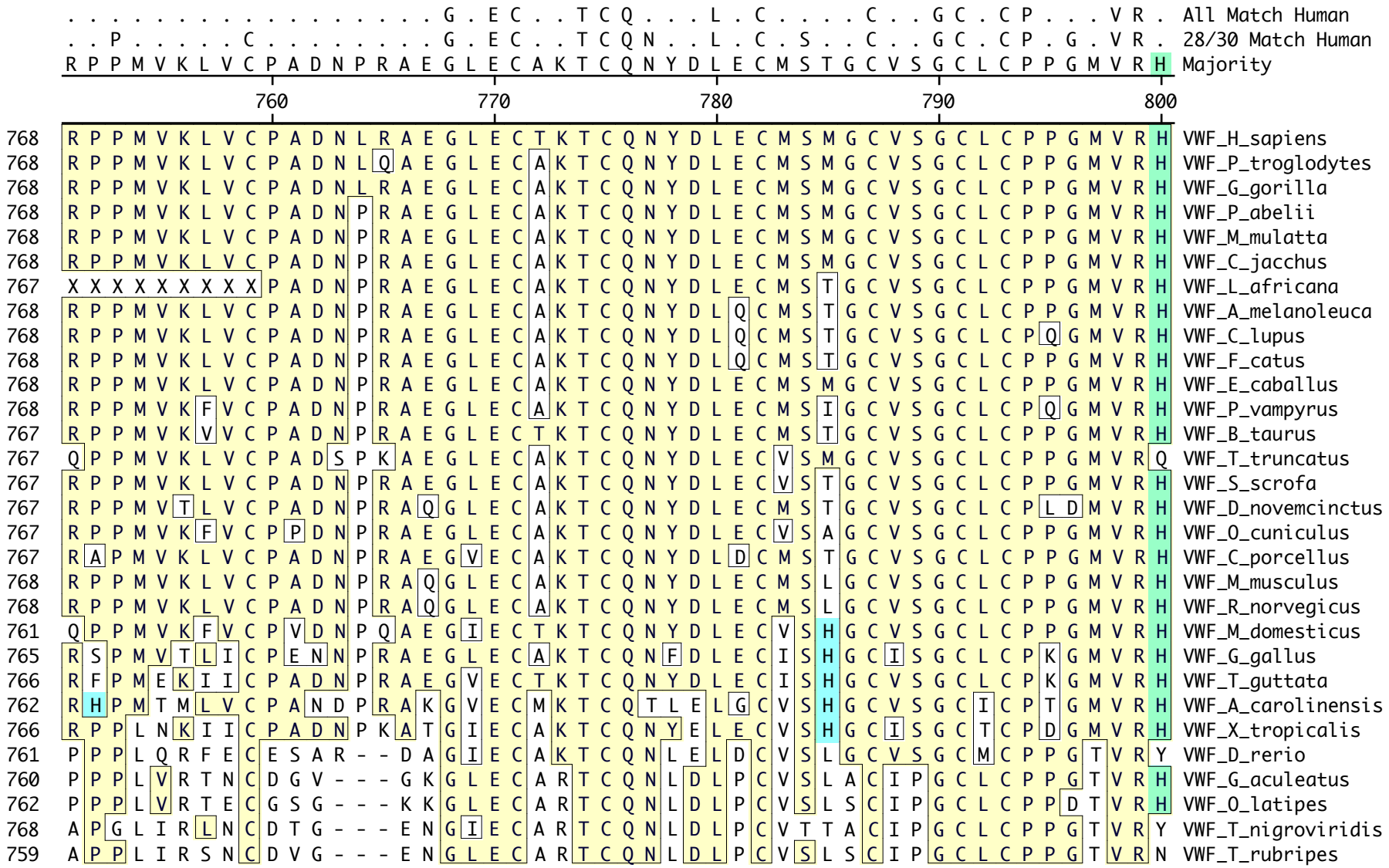
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28/30 Match Human
Majority
760
770
780
790
800
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768 VWF_P_abelii
768 VWF_M_mulatta
768 VWF_C_jacchus
767 VWF_L_africana
768 VWF_A_melanoleuca
768 VWF_C_lupus
768 VWF_F_catus
768 VWF_E_caballus
768 VWF_P_vampyrus
767 VWF_B_taurus
767 VWF_T_truncatus
767 VWF_S_scrofa
767 VWF_D_novemcinctus
767 VWF_O_cuniculus
767 VWF_C_porcellus
768 VWF_M_musculus
768 VWF_R_norvegicus
761 VWF_M_domesticus
765 VWF_G_gallus
766 VWF_T_guttata
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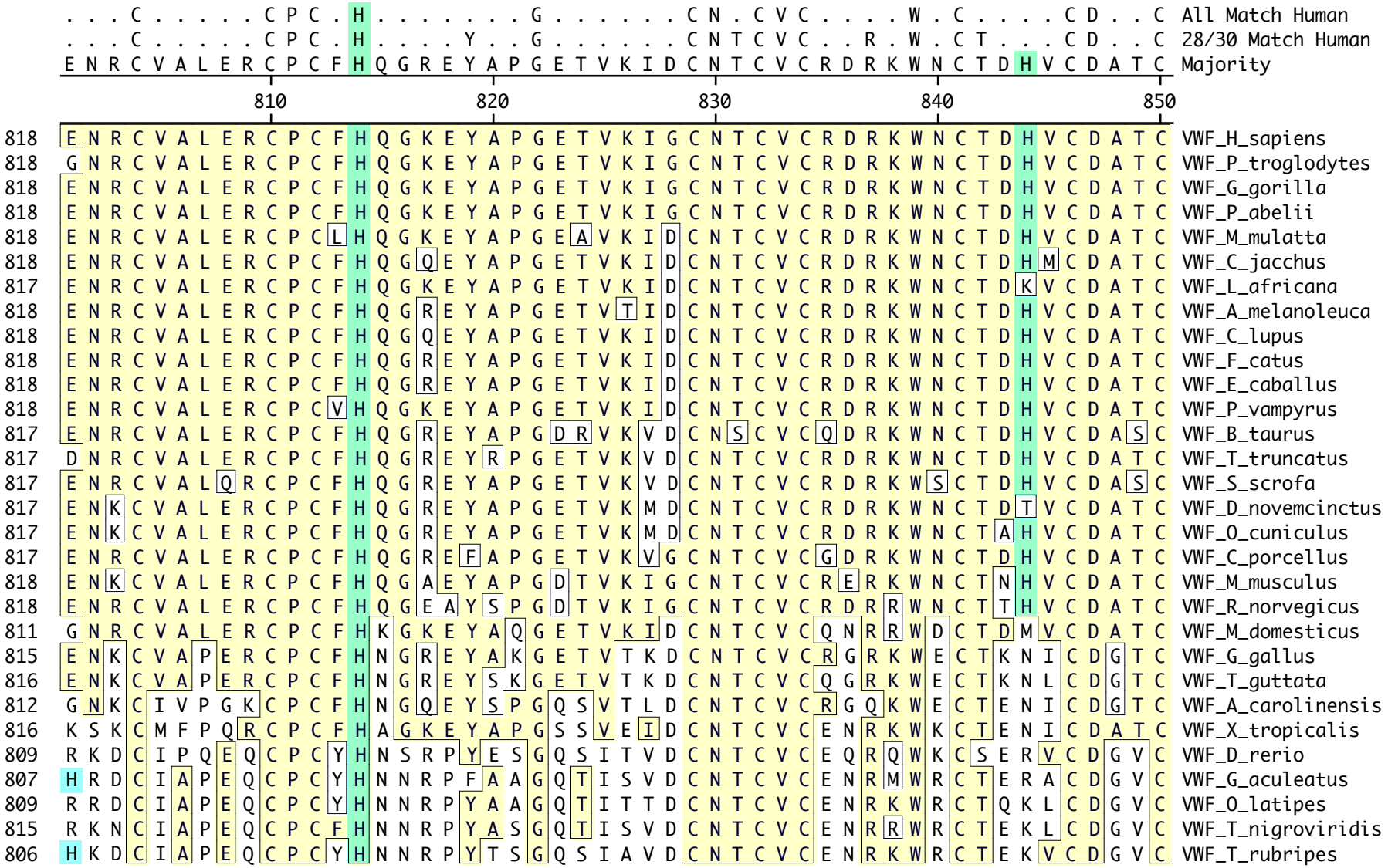
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E N R C V A L E R C P C F H Q G R E Y A P G E T V K I D C N T C V C R D R K W N C T D H V C D A T C Majority
810
820
830
840
850
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818 G N R C V A L E R C P C F H Q G K E Y A P G E T V K I G C N T C V C R D R K W N C T D H V C D A T C VWF_P_troglodytes
818 E N R C V A L E R C P C F H Q G K E Y A P G E T V K I G C N T C V C R D R K W N C T D H V C D A T C VWF_G_gorilla
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818 E N R C V A L E R C P C L H Q G K E Y A P G E A V K I D C N T C V C R D R K W N C T D H V C D A T C VWF_M_mulatta
818 E N R C V A L E R C P C F H Q G Q E Y A P G E T V K I D C N T C V C R D R K W N C T D H M C D A T C VWF_C_jacchus
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818 E N R C V A L E R C P C F H Q G R E Y A P G E T V K I D C N T C V C R D R K W N C T D H V C D A T C VWF_F_catus
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817 E N R C V A L E R C P C F H Q G R E F A P G E T V K V G C N T C V C G D R K W N C T D H V C D A T C VWF_C_porcellus
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818 E N R C V A L E R C P C F H Q G E A Y S P G D T V K I G C N T C V C R D R R W N C T T H V C D A T C VWF_R_norvegicus
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815 E N K C V A P E R C P C F H N G R E Y A K G E T V T K D C N T C V C R G R K W E C T K N I C D G T C VWF_G_gallus
816 E N K C V A P E R C P C F H N G R E Y S K G E T V T K D C N T C V C Q G R K W E C T K N L C D G T C VWF_T_guttata
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816 K S K C M F P Q R C P C F H A G K E Y A P G S S V E I D C N T C V C E N R K W K C T E N I C D A T C VWF_X_tropicalis
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809 R R D C I A P E Q C P C Y H N N R P Y A A G Q T I T T D C N T C V C E N R K W R C T Q K L C D G V C VWF_O_latipes
815 R K N C I A P E Q C P C F H N N R P Y A S G Q T I S V D C N T C V C E N R R W R C T E K L C D G V C VWF_T_nigroviridis
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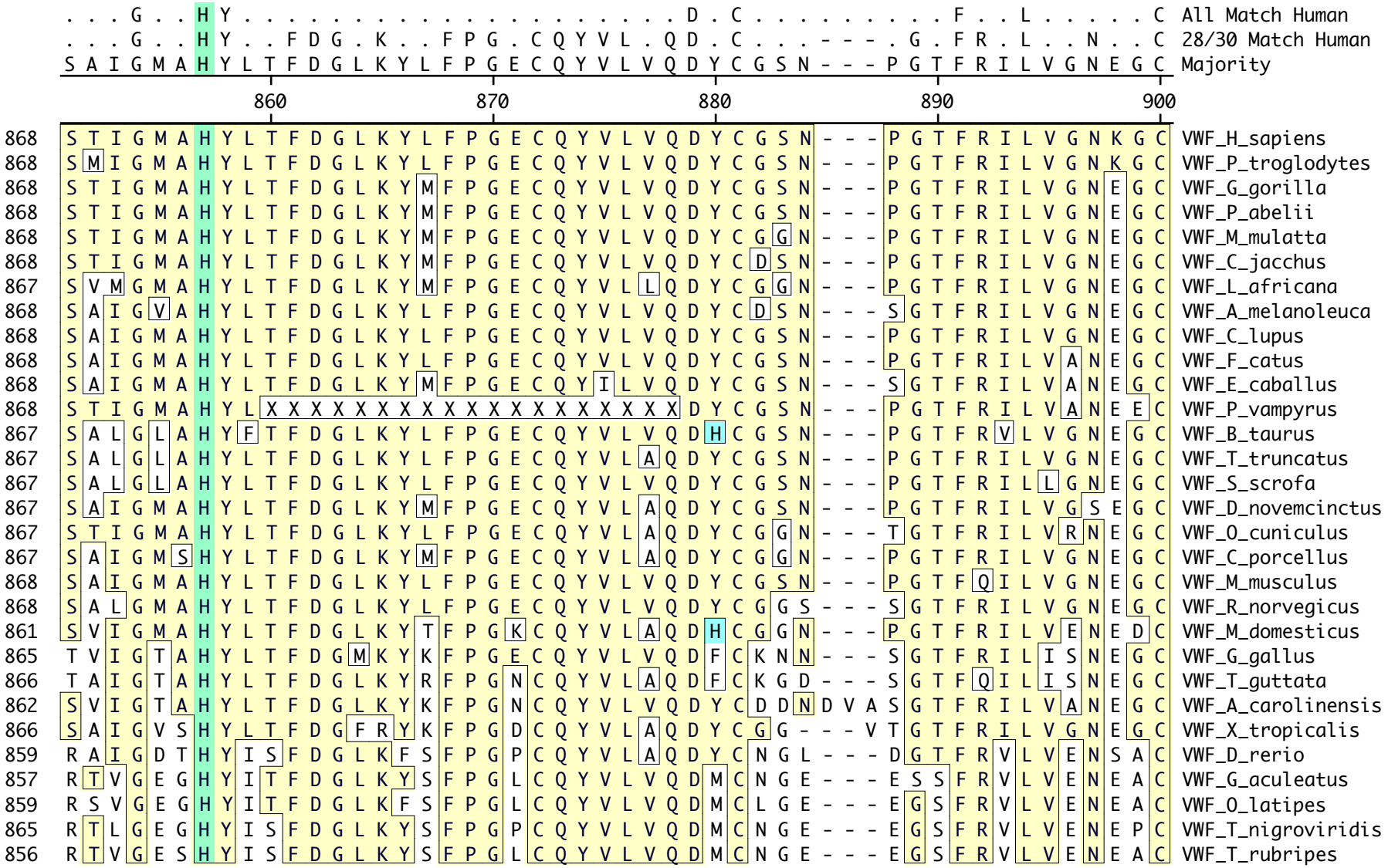
All Match Human
28/30 Match Human
Majority
860
870
880
890
900
VWF_H_sapiens
VWF_P_troglodytes
VWF_G_gorilla
VWF_P_abelii
VWF_M_mulatta
VWF_C_jacchus
VWF_L_africana
VWF_A_melanoleuca
VWF_C_lupus
VWF_F_catus
VWF_E_caballus
VWF_P_vampyrus
VWF_B_taurus
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VWF_S_scrofa
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VWF_C_porcellus
VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
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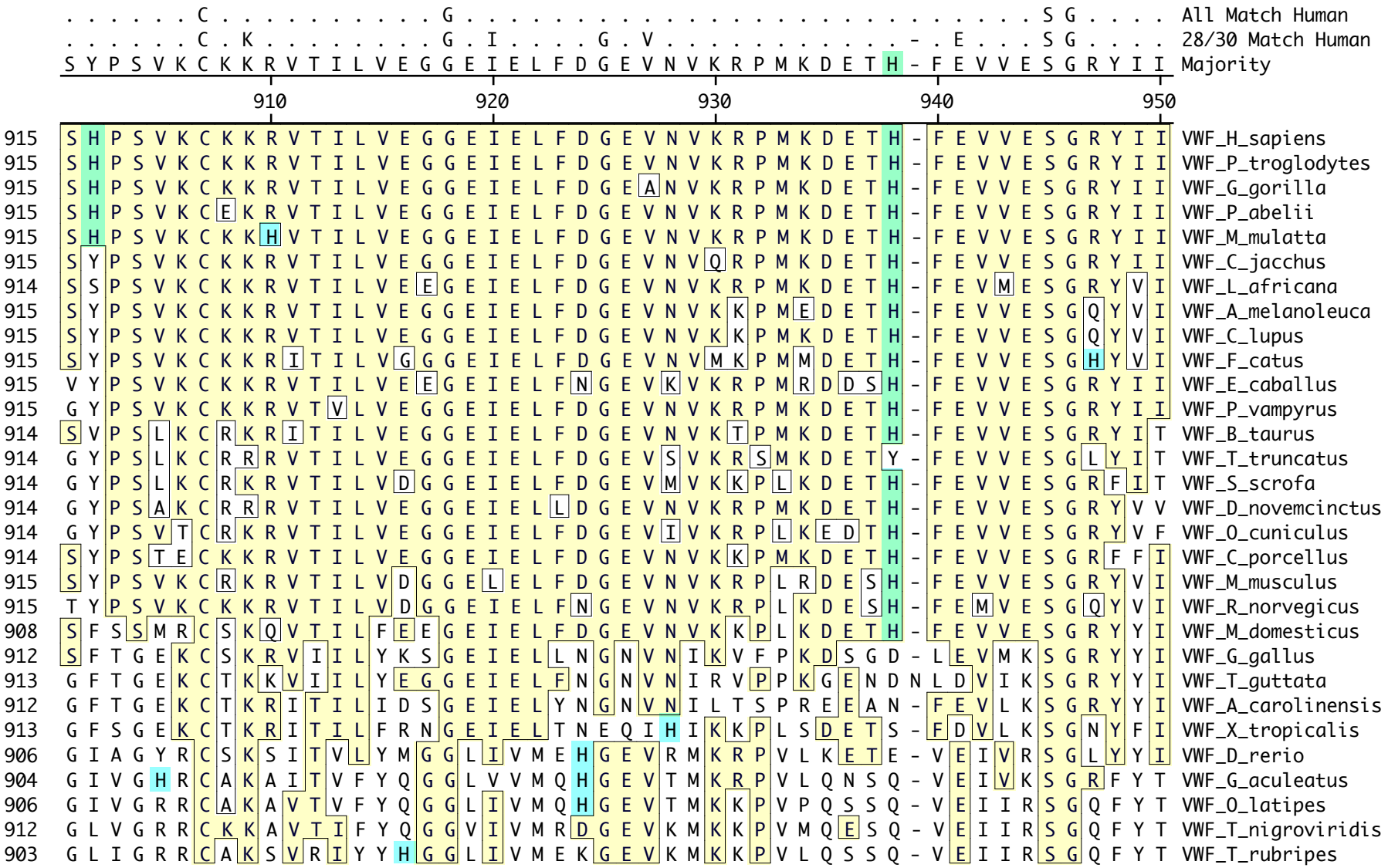
All Match Human
28/30 Match Human
Majority
910
920
930
940
950
VWF_H_sapiens
VWF_P_troglodytes
VWF_G_gorilla
VWF_P_abelii
VWF_M_mulatta
VWF_C_jacchus
VWF_L_africana
VWF_A_melanoleuca
VWF_C_lupus
VWF_F_catus
VWF_E_caballus
VWF_P_vampyrus
VWF_B_taurus
VWF_T_truncatus
VWF_S_scrofa
VWF_D_novemcinctus
VWF_O_cuniculus
VWF_C_porcellus
VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
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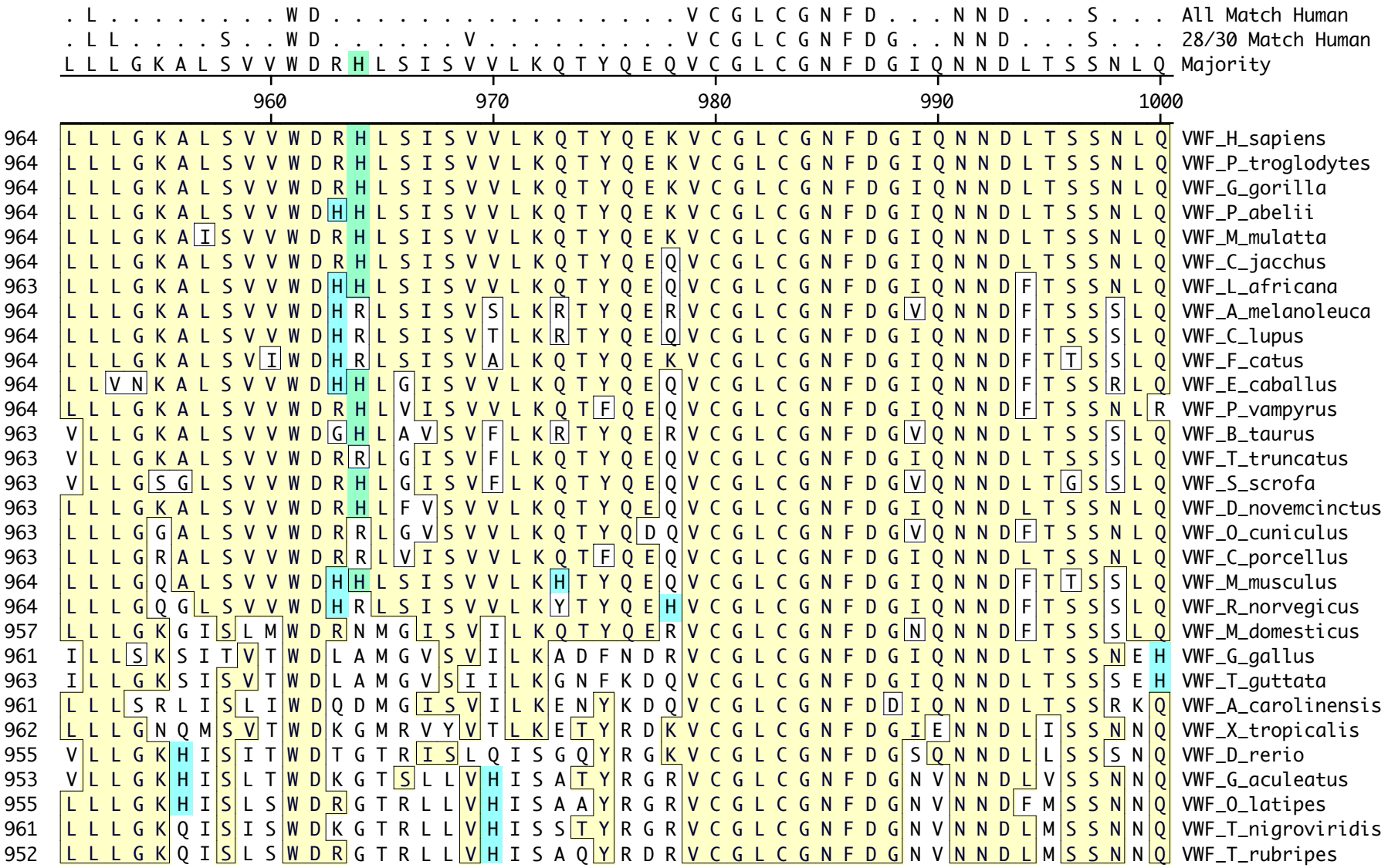
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. L L . . . . S . . W D . . . . . V . . . . . V C G L C G N F D G . . N N D . . . S . . . 28/30 Match Human
L L L G K A L S V V W D R H L S I S V V L K Q T Y Q E Q V C G L C G N F D G I Q N N D L T S S N L Q Majority
960
970
980
990
1000
964 L L L G K A L S V V W D R H L S I S V V L K Q T Y Q E K V C G L C G N F D G I Q N N D L T S S N L Q VWF_H_sapiens
964 L L L G K A L S V V W D R H L S I S V V L K Q T Y Q E K V C G L C G N F D G I Q N N D L T S S N L Q VWF_P_troglodytes
964 L L L G K A L S V V W D R H L S I S V V L K Q T Y Q E K V C G L C G N F D G I Q N N D L T S S N L Q VWF_G_gorilla
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963 L L L G K A L S V V W D H H L S I S V V L K Q T Y Q E Q V C G L C G N F D G I Q N N D F T S S N L Q VWF_L_africana
964 L L L G K A L S V V W D H R L S I S V S L K R T Y Q E R V C G L C G N F D G V Q N N D F T S S S L Q VWF_A_melanoleuca
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964 L L L G K A L S V I W D H R L S I S V A L K Q T Y Q E K V C G L C G N F D G I Q N N D F T T S S L Q VWF_F_catus
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964 L L L G K A L S V V W D R H L V I S V V L K Q T F Q E Q V C G L C G N F D G I Q N N D F T S S N L R VWF_P_vampyrus
963 V L L G K A L S V V W D G H L A V S V F L K R T Y Q E R V C G L C G N F D G V Q N N D L T S S S L Q VWF_B_taurus
963 V L L G K A L S V V W D R R L G I S V F L K Q T Y Q E Q V C G L C G N F D G I Q N N D L T S S S L Q VWF_T_truncatus
963 V L L G S G L S V V W D R H L G I S V F L K Q T Y Q E Q V C G L C G N F D G V Q N N D L T G S S L Q VWF_S_scrofa
963 L L L G K A L S V V W D R H L F V S V V L K Q T Y Q E Q V C G L C G N F D G I Q N N D L T S S N L Q VWF_D_novemcinctus
963 L L L G G A L S V V W D R R L G V S V V L K Q T Y Q D Q V C G L C G N F D G V Q N N D F T S S N L Q VWF_O_cuniculus
963 L L L G R A L S V V W D R R L V I S V V L K Q T F Q E Q V C G L C G N F D G I Q N N D L T S S N L Q VWF_C_porcellus
964 L L L G Q A L S V V W D H H L S I S V V L K H T Y Q E Q V C G L C G N F D G I Q N N D F T T S S L Q VWF_M_musculus
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961 L L L S R L I S L I W D Q D M G I S V I L K E N Y K D Q V C G L C G N F D D I Q N N D L T S S R K Q VWF_A_carolinensis
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953 V L L G K H I S L T W D K G T S L L V H I S A T Y R G R V C G L C G N F D G N V N N D L V S S N N Q VWF_G_aculeatus
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961 L L L G K Q I S I S W D K G T R L L V H I S S T Y R G R V C G L C G N F D G N V N N D L M S S N N Q VWF_T_nigroviridis
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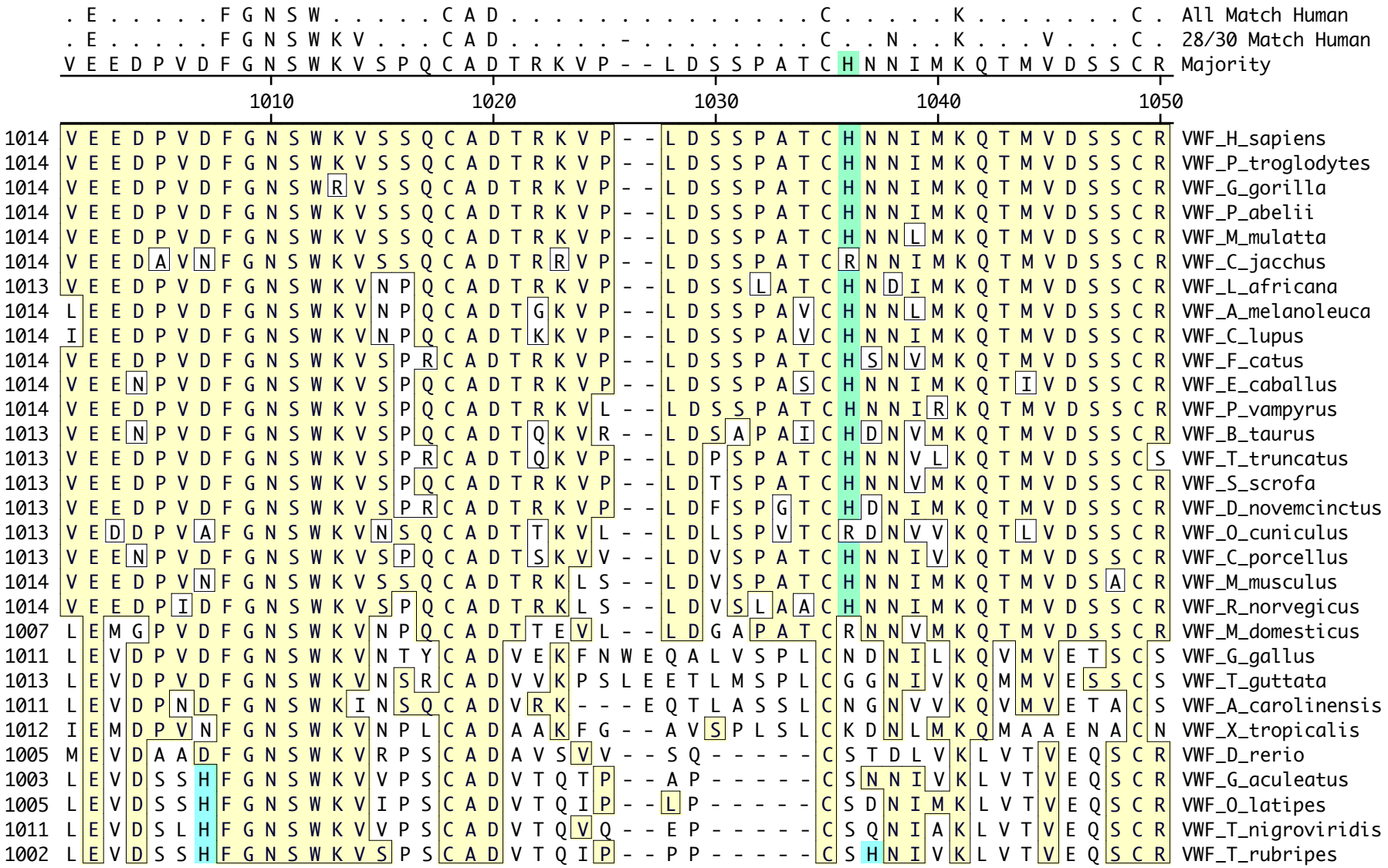
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. E . . . . . F G N S W K V . . . C A D . . . . . C . . N . . K . . . V . . . C . 28/30 Match Human
V E E D P V D F G N S W K V S P Q C A D T R K V P - - L D S S P A T C H N N I M K Q T M V D S S C R Majority
1010
1020
1030
1040
1050
1014 V E E D P V D F G N S W K V S S Q C A D T R K V P - - L D S S P A T C H N N I M K Q T M V D S S C R VWF_H_sapiens
1014 V E E D P V D F G N S W K V S S Q C A D T R K V P - - L D S S P A T C H N N I M K Q T M V D S S C R VWF_P_troglodytes
1014 V E E D P V D F G N S W R V S S Q C A D T R K V P - - L D S S P A T C H N N I M K Q T M V D S S C R VWF_G_gorilla
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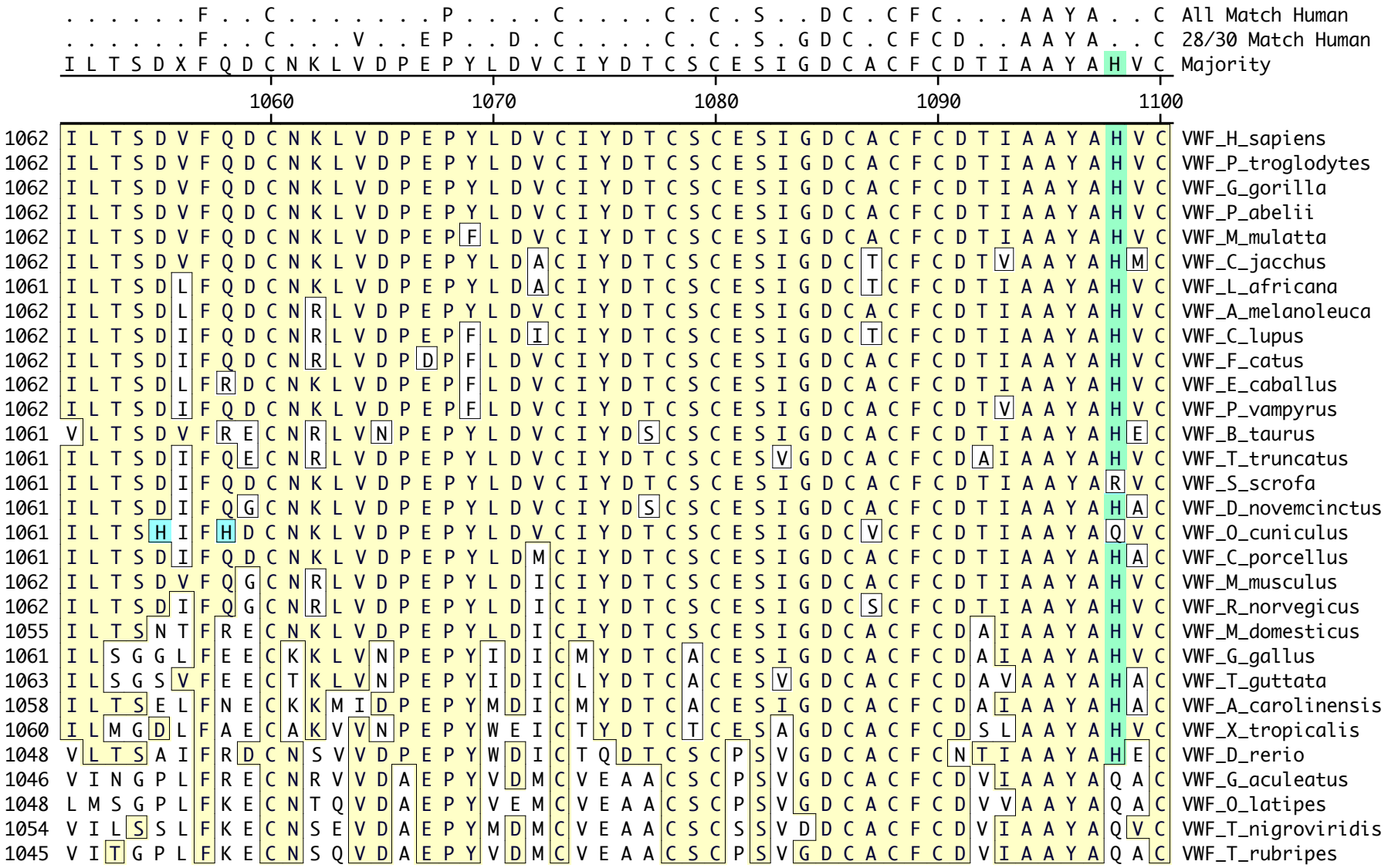
1014 I E E D P V D F G N S W K V N P Q C A D T K K V P - - L D S S P A V C H N N I M K Q T M V D S S C R VWF_C_lupus
1014 V E E D P V D F G N S W K V S P R C A D T R K V P - - L D S S P A T C H S N V M K Q T M V D S S C R VWF_F_catus
1014 V E E N P V D F G N S W K V S P Q C A D T R K V P - - L D S S P A S C H N N I M K Q T I V D S S C R VWF_E_caballus
1014 V E E D P V D F G N S W K V S P Q C A D T R K V L - - L D S S P A T C H N N I R K Q T M V D S S C R VWF_P_vampyrus
1013 V E E N P V D F G N S W K V S P Q C A D T Q K V R - - L D S A P A I C H D N V M K Q T M V D S S C R VWF_B_taurus
1013 V E E D P V D F G N S W K V S P R C A D T Q K V P - - L D P S P A T C H N N V L K Q T M V D S S C S VWF_T_truncatus
1013 V E E D P V D F G N S W K V S P Q C A D T R K V P - - L D T S P A T C H N N V M K Q T M V D S S C R VWF_S_scrofa
1013 V E E D P V D F G N S W K V S P R C A D T R K V P - - L D F S P G T C H D N I M K Q T M V D S S C R VWF_D_novemcinctus
1013 V E D D P V A F G N S W K V N S Q C A D T T K V L - - L D L S P V T C R D N V V K Q T L V D S S C R VWF_O_cuniculus
1013 V E E N P V D F G N S W K V S P Q C A D T S K V V - - L D V S P A T C H N N I V K Q T M V D S S C R VWF_C_porcellus
1014 V E E D P V N F G N S W K V S S Q C A D T R K L S - - L D V S P A T C H N N I M K Q T M V D S A C R VWF_M_musculus
1014 V E E D P I D F G N S W K V S P Q C A D T R K L S - - L D V S L A A C H N N I M K Q T M V D S S C R VWF_R_norvegicus
1007 L E M G P V D F G N S W K V N P Q C A D T T E V L - - L D G A P A T C R N N V M K Q T M V D S S C R VWF_M_domesticus
1011 L E V D P V D F G N S W K V N T Y C A D V E K F N W E Q A L V S P L C N D N I L K Q V M V E T S C S VWF_G_gallus
1013 L E V D P V D F G N S W K V N S R C A D V V K P S L E E T L M S P L C G G N I V K Q M M V E S S C S VWF_T_guttata
1011 L E V D P N D F G N S W K I N S Q C A D V R K - - - E Q T L A S S L C N G N V V K Q V M V E T A C S VWF_A_carolinensis
1012 I E M D P V N F G N S W K V N P L C A D A A K F G - - A V S P L S L C K D N L M K Q M A A E N A C N VWF_X_tropicalis
1005 M E V D A A D F G N S W K V R P S C A D A V S V V - - S Q - - - - - C S T D L V K L V T V E Q S C R VWF_D_rerio
1003 L E V D S S H F G N S W K V V P S C A D V T Q T P - - A P - - - - - C S N N I V K L V T V E Q S C R VWF_G_aculeatus
1005 L E V D S S H F G N S W K V I P S C A D V T Q I P - - L P - - - - - C S D N I M K L V T V E Q S C R VWF_O_latipes
1011 L E V D S L H F G N S W K V V P S C A D V T Q V Q - - E P - - - - - C S Q N I A K L V T V E Q S C R VWF_T_nigroviridis
1002 L E V D S S H F G N S W K V S P S C A D V T Q I P - - P P - - - - - C S H N I V K L V T V E Q S C R VWF_T_rubripes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. . . . . F . . C . . . V . . E P . . D . C . . . . C . C . S . G D C . C F C D . . A A Y A . . C 28/30 Match Human
I L T S D X F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C Majority
1060
1070
1080
1090
1100
1062 I L T S D V F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_H_sapiens
1062 I L T S D V F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_P_troglodytes
1062 I L T S D V F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_G_gorilla
1062 I L T S D V F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_P_abelii
1062 I L T S D V F Q D C N K L V D P E P F L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_M_mulatta
1062 I L T S D V F Q D C N K L V D P E P Y L D A C I Y D T C S C E S I G D C T C F C D T V A A Y A H M C VWF_C_jacchus
1061 I L T S D L F Q D C N K L V D P E P Y L D A C I Y D T C S C E S I G D C T C F C D T I A A Y A H V C VWF_L_africana
1062 I L T S D L F Q D C N R L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_A_melanoleuca
1062 I L T S D I F Q D C N R L V D P E P F L D I C I Y D T C S C E S I G D C T C F C D T I A A Y A H V C VWF_C_lupus
1062 I L T S D I F Q D C N R L V D P D P F L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_F_catus
1062 I L T S D L F R D C N K L V D P E P F L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_E_caballus
1062 I L T S D I F Q D C N K L V D P E P F L D V C I Y D T C S C E S I G D C A C F C D T V A A Y A H V C VWF_P_vampyrus
1061 V L T S D V F R E C N R L V N P E P Y L D V C I Y D S C S C E S I G D C A C F C D T I A A Y A H E C VWF_B_taurus
1061 I L T S D I F Q E C N R L V D P E P Y L D V C I Y D T C S C E S V G D C A C F C D A I A A Y A H V C VWF_T_truncatus
1061 I L T S D I F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A R V C VWF_S_scrofa
1061 I L T S D I F Q G C N K L V D P E P Y L D V C I Y D S C S C E S I G D C A C F C D T I A A Y A H A C VWF_D_novemcinctus
1061 I L T S H I F H D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C V C F C D T I A A Y A Q V C VWF_O_cuniculus
1061 I L T S D I F Q D C N K L V D P E P Y L D M C I Y D T C S C E S I G D C A C F C D T I A A Y A H A C VWF_C_porcellus
1062 I L T S D V F Q G C N R L V D P E P Y L D I C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C VWF_M_musculus
1062 I L T S D I F Q G C N R L V D P E P Y L D I C I Y D T C S C E S I G D C S C F C D T I A A Y A H V C VWF_R_norvegicus
1055 I L T S N T F R E C N K L V D P E P Y L D I C I Y D T C S C E S I G D C A C F C D A I A A Y A H V C VWF_M_domesticus
1061 I L S G G L F E E C K K L V N P E P Y I D I C M Y D T C A C E S I G D C A C F C D A I A A Y A H V C VWF_G_gallus
1063 I L S G S V F E E C T K L V N P E P Y I D I C L Y D T C A C E S V G D C A C F C D A V A A Y A H A C VWF_T_guttata
1058 I L T S E L F N E C K K M I D P E P Y M D I C M Y D T C A C E S I G D C A C F C D A I A A Y A H A C VWF_A_carolinensis
1060 I L M G D L F A E C A K V V N P E P Y W E I C T Y D T C T C E S A G D C A C F C D S L A A Y A H V C VWF_X_tropicalis
1048 V L T S A I F R D C N S V V D P E P Y W D I C T Q D T C S C P S V G D C A C F C N T I A A Y A H E C VWF_D_rerio
1046 V I N G P L F R E C N R V V D A E P Y V D M C V E A A C S C P S V G D C A C F C D V I A A Y A Q A C VWF_G_aculeatus
1048 L M S G P L F K E C N T Q V D A E P Y V E M C V E A A C S C P S V G D C A C F C D V V A A Y A Q A C VWF_O_latipes
1054 V I L S S L F K E C N S E V D A E P Y M D M C V E A A C S C S S V D D C A C F C D V I A A Y A Q V C VWF_T_nigroviridis
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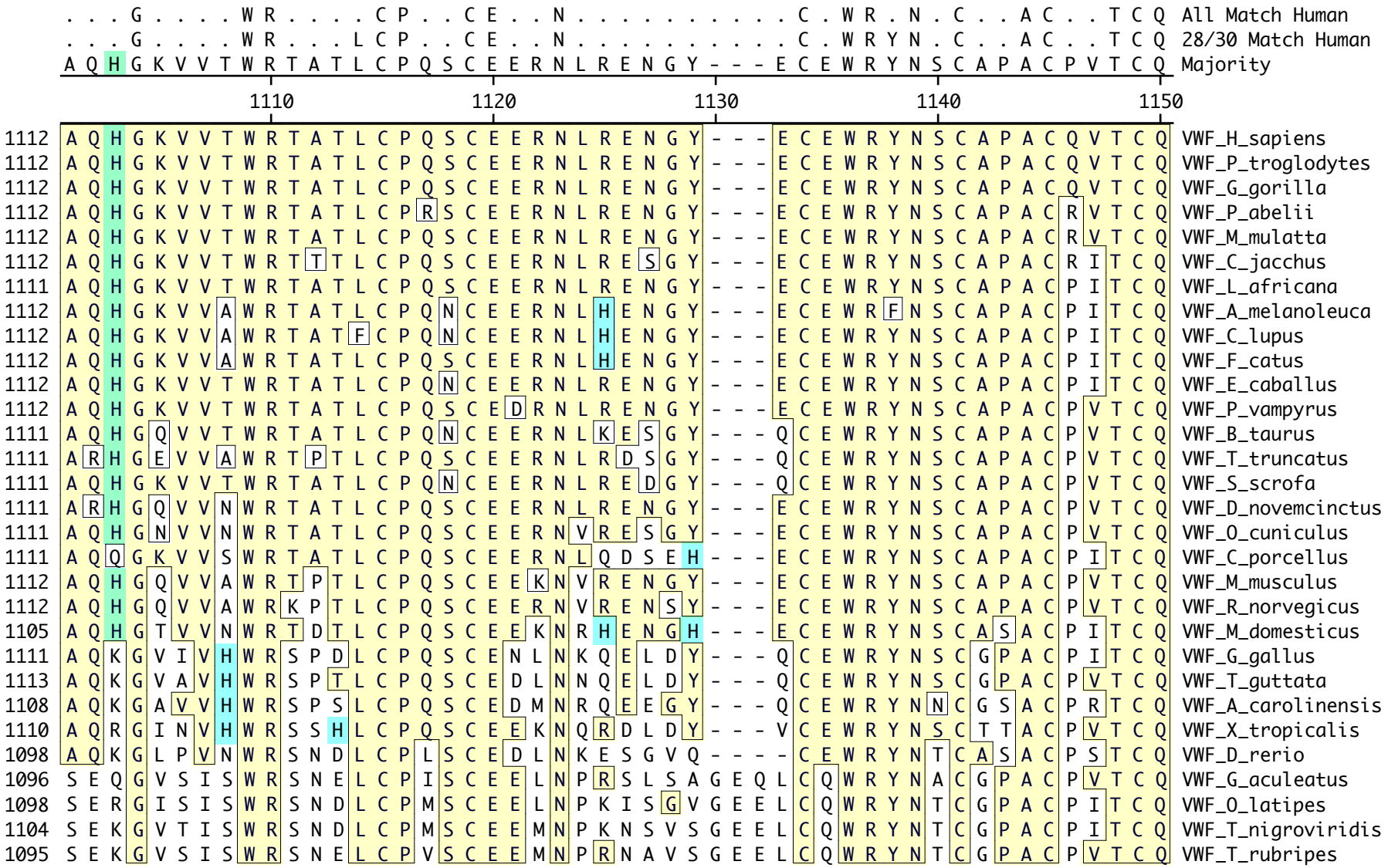
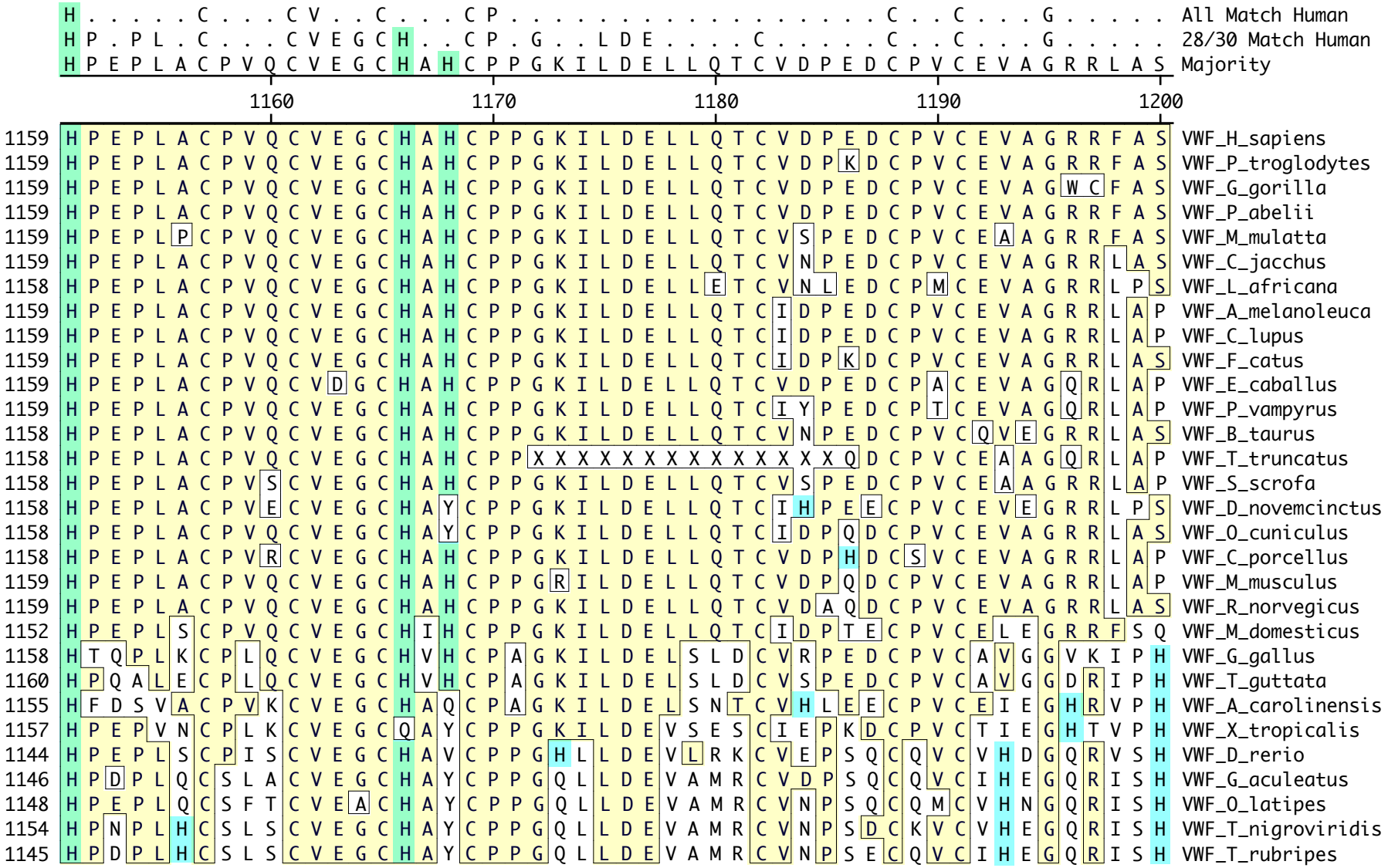

. . . G . . . . W R . . . . C P . . C E . . N . . . . C . W R . N . C . . A C . . T C Q All Match Human
. . . G . . . . W R . . . L C P . . C E . . N . . . . C . W R Y N . C . . A C . . T C Q 28/30 Match Human
A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C P V T C Q Majority
1110
1120
1130
1140
1150
1112 A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C Q V T C Q VWF_H_sapiens
1112 A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C Q V T C Q VWF_P_troglodytes
1112 A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C Q V T C Q VWF_G_gorilla
1112 A Q H G K V V T W R T A T L C P R S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C R V T C Q VWF_P_abelii
1112 A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C R V T C Q VWF_M_mulatta
1112 A Q H G K V V T W R T T T L C P Q S C E E R N L R E S G Y - - - E C E W R Y N S C A P A C R I T C Q VWF_C_jacchus
1111 A Q H G K V V T W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C P I T C Q VWF_L_africana
1112 A Q H G K V V A W R T A T L C P Q N C E E R N L H E N G Y - - - E C E W R F N S C A P A C P I T C Q VWF_A_melanoleuca
1112 A Q H G K V V A W R T A T F C P Q N C E E R N L H E N G Y - - - E C E W R Y N S C A P A C P I T C Q VWF_C_lupus
1112 A Q H G K V V A W R T A T L C P Q S C E E R N L H E N G Y - - - E C E W R Y N S C A P A C P I T C Q VWF_F_catus
1112 A Q H G K V V T W R T A T L C P Q N C E E R N L R E N G Y - - - E C E W R Y N S C A P A C P I T C Q VWF_E_caballus
1112 A Q H G K V V T W R T A T L C P Q S C E D R N L R E N G Y - - - E C E W R Y N S C A P A C P V T C Q VWF_P_vampyrus
1111 A Q H G Q V V T W R T A T L C P Q N C E E R N L K E S G Y - - - Q C E W R Y N S C A P A C P V T C Q VWF_B_taurus
1111 A R H G E V V A W R T P T L C P Q S C E E R N L R D S G Y - - - Q C E W R Y N S C A P A C P V T C Q VWF_T_truncatus
1111 A Q H G K V V T W R T A T L C P Q N C E E R N L R E D G Y - - - Q C E W R Y N S C A P A C P V T C Q VWF_S_scrofa
1111 A R H G Q V V N W R T A T L C P Q S C E E R N L R E N G Y - - - E C E W R Y N S C A P A C P V T C Q VWF_D_novemcinctus
1111 A Q H G N V V N W R T A T L C P Q S C E E R N V R E S G Y - - - E C E W R Y N S C A P A C P V T C Q VWF_O_cuniculus
1111 A Q Q G K V V S W R T A T L C P Q S C E E R N L Q D S E H - - - E C E W R Y N S C A P A C P I T C Q VWF_C_porcellus
1112 A Q H G Q V V A W R T P T L C P Q S C E E K N V R E N G Y - - - E C E W R Y N S C A P A C P V T C Q VWF_M_musculus
1112 A Q H G Q V V A W R K P T L C P Q S C E E R N V R E N S Y - - - E C E W R Y N S C A P A C P V T C Q VWF_R_norvegicus
1105 A Q H G T V V N W R T D T L C P Q S C E E K N R H E N G H - - - E C E W R Y N S C A S A C P I T C Q VWF_M_domesticus
1111 A Q K G V I V H W R S P D L C P Q S C E N L N K Q E L D Y - - - Q C E W R Y N S C G P A C P I T C Q VWF_G_gallus
1113 A Q K G V A V H W R S P T L C P Q S C E D L N N Q E L D Y - - - Q C E W R Y N S C G P A C P V T C Q VWF_T_guttata
1108 A Q K G A V V H W R S P S L C P Q S C E D M N R Q E E G Y - - - Q C E W R Y N N C G S A C P R T C Q VWF_A_carolinensis
1110 A Q R G I N V H W R S S H L C P Q S C E E K N Q R D L D Y - - - V C E W R Y N S C T T A C P V T C Q VWF_X_tropicalis
1098 A Q K G L P V N W R S N D L C P L S C E D L N K E S G V Q - - - - C E W R Y N T C A S A C P S T C Q VWF_D_rerio
1096 S E Q G V S I S W R S N E L C P I S C E E L N P R S L S A G E Q L C Q W R Y N A C G P A C P V T C Q VWF_G_aculeatus
1098 S E R G I S I S W R S N D L C P M S C E E L N P K I S G V G E E L C Q W R Y N T C G P A C P I T C Q VWF_O_latipes
1104 S E K G V T I S W R S N D L C P M S C E E M N P K N S V S G E E L C Q W R Y N T C G P A C P I T C Q VWF_T_nigroviridis
1095 S E K G V S I S W R S N E L C P V S C E E M N P R N A V S G E E L C Q W R Y N T C G P A C P V T C Q VWF_T_rubripes


All Match Human
28/30 Match Human
Majority
1160
1170
1180
1190
1200
VWF_H_sapiens
VWF_P_troglodytes
VWF_G_gorilla
VWF_P_abelii
VWF_M_mulatta
VWF_C_jacchus
VWF_L_africana
VWF_A_melanoleuca
VWF_C_lupus
VWF_F_catus
VWF_E_caballus
VWF_P_vampyrus
VWF_B_taurus
VWF_T_truncatus
VWF_S_scrofa
VWF_D_novemcinctus
VWF_O_cuniculus
VWF_C_porcellus
VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
VWF_X_tropicalis
VWF_D_rerio
VWF_G_aculeatus
VWF_O_latipes
VWF_T_nigroviridis
VWF_T_rubripes

All Match Human
28/30 Match Human
Majority
1210
VWF_H_sapiens
VWF_P_troglodytes
VWF_G_gorilla
VWF_P_abelii
VWF_M_mulatta
VWF_C_jacchus
VWF_L_africana
VWF_A_melanoleuca
VWF_C_lupus
VWF_F_catus
VWF_E_caballus
VWF_P_vampyrus
VWF_B_taurus
VWF_T_truncatus
VWF_S_scrofa
VWF_D_novemcinctus
VWF_O_cuniculus
VWF_C_porcellus
VWF_M_musculus
VWF_R_norvegicus
VWF_M_domesticus
VWF_G_gallus
VWF_T_guttata
VWF_A_carolinensis
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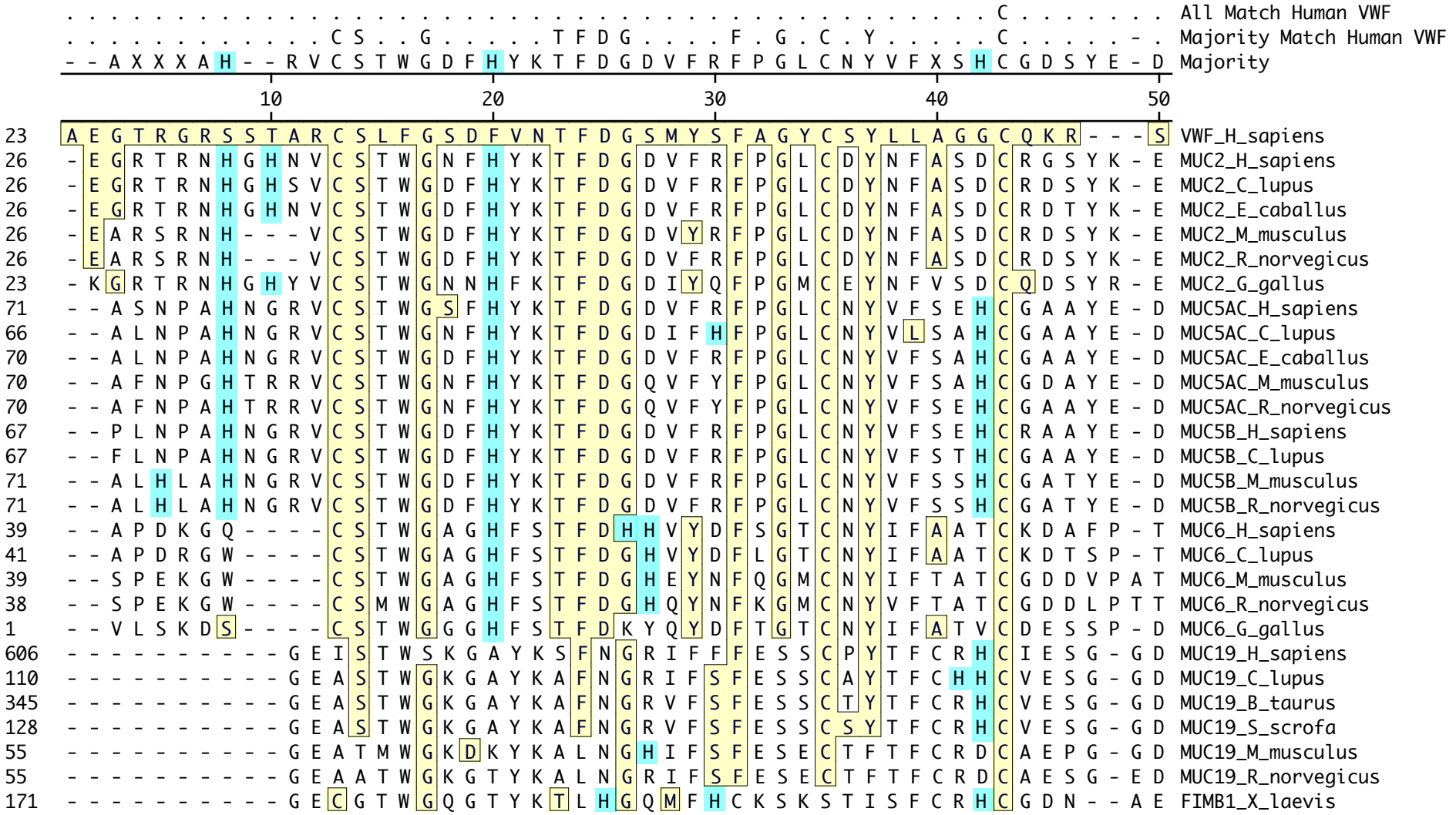
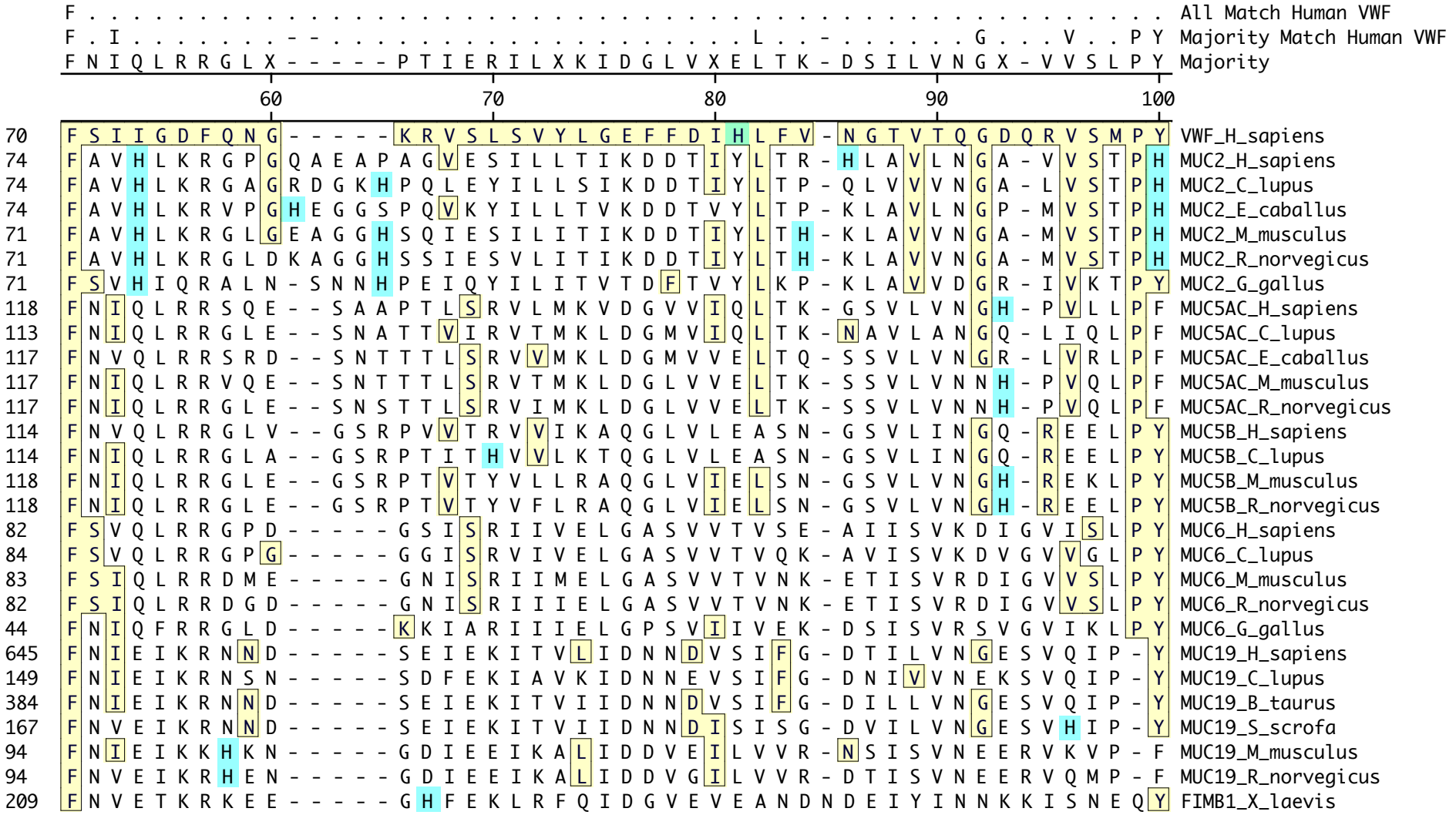
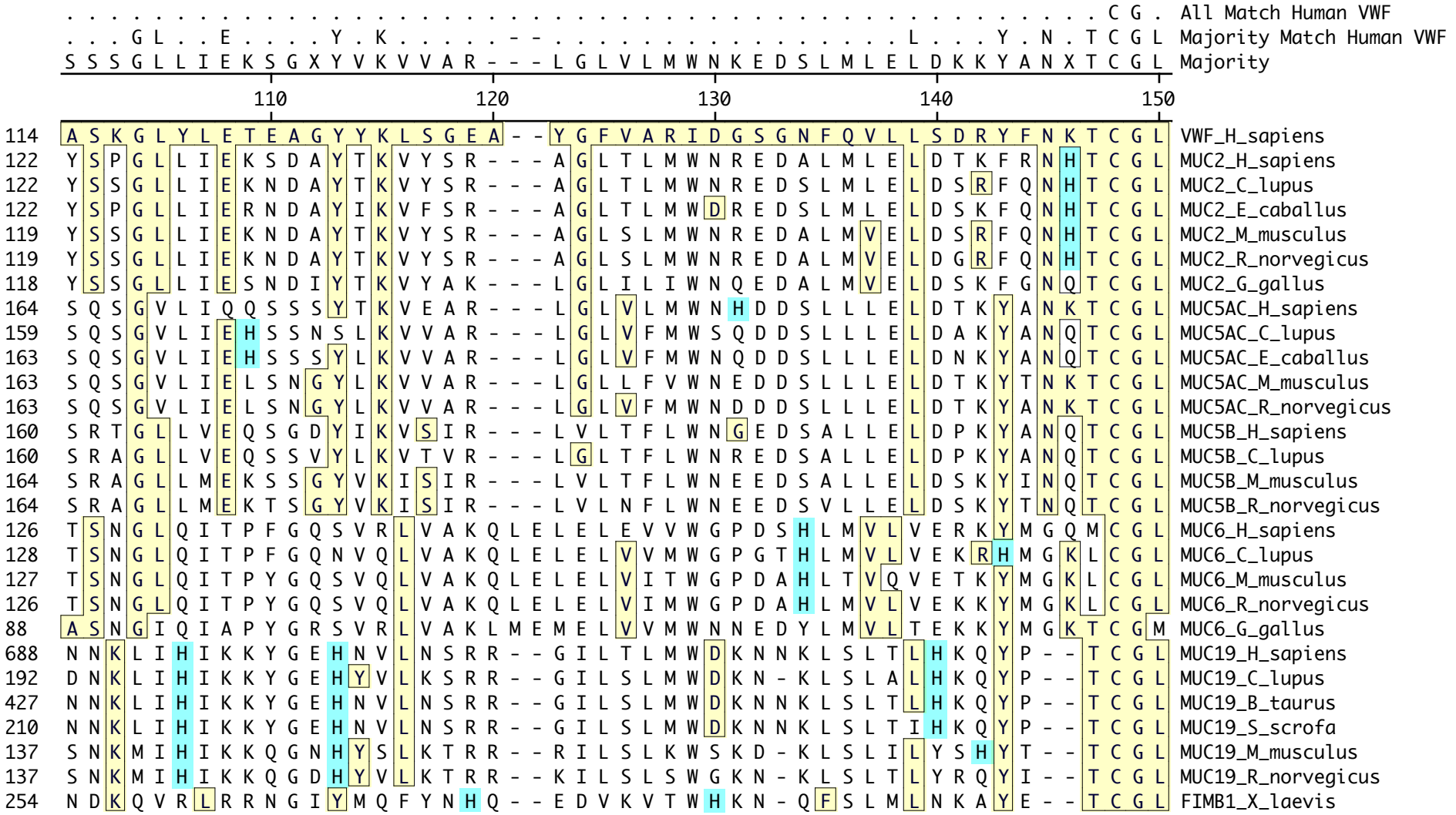
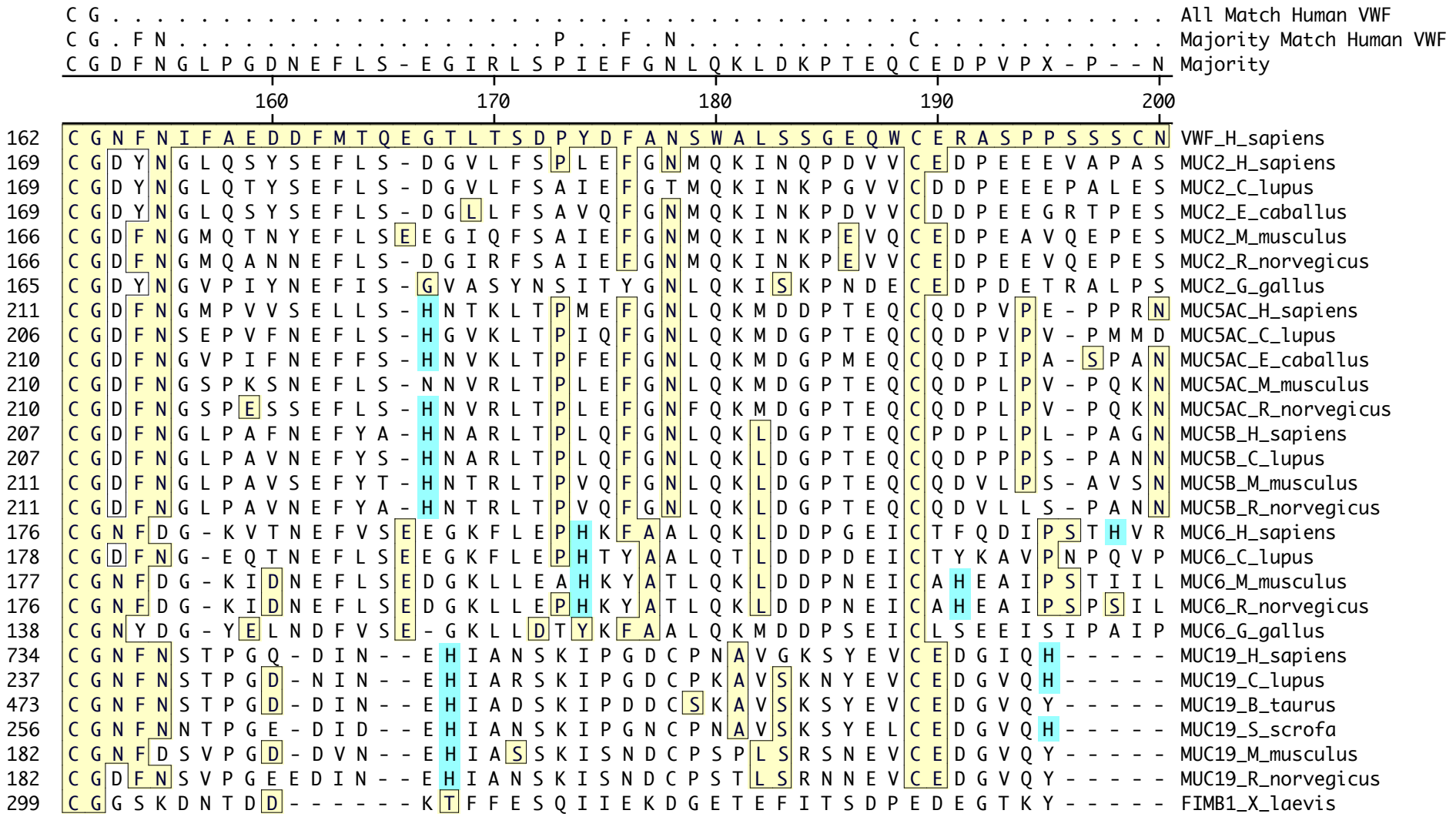
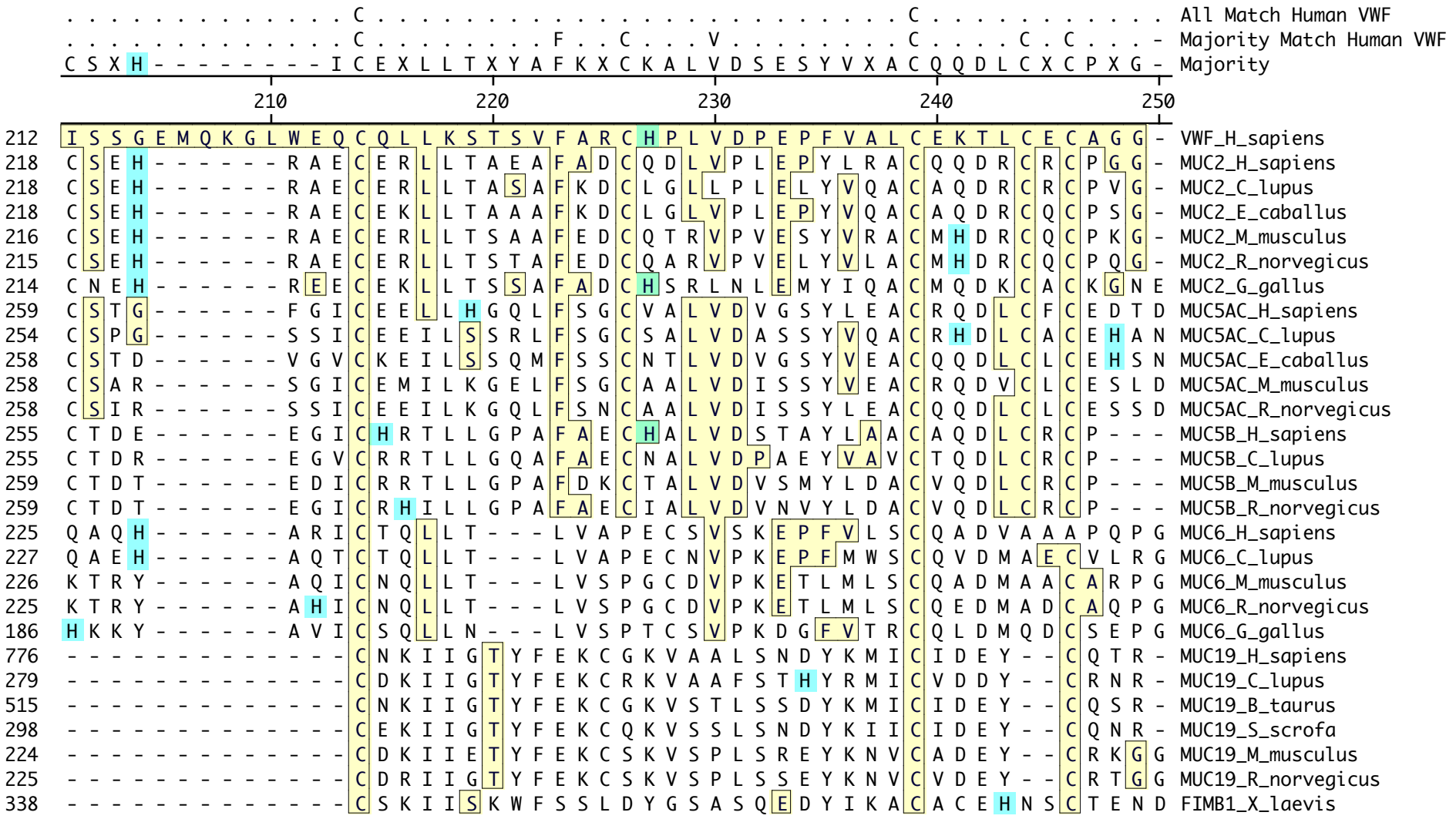
VWF_T_nigroviridis
VWF_T_rubripes


All Match Human VWF
Majority Match Human VWF
Majority
10
20
30
40
50
VWF_H_sapiens
MUC2_H_sapiens
MUC2_C_lupus
MUC2_E_caballus
MUC2_M_musculus
MUC2_R_norvegicus
MUC2_G_gallus
MUC5AC_H_sapiens
MUC5AC_C_lupus
MUC5AC_E_caballus
MUC5AC_M_musculus
MUC5AC_R_norvegicus
MUC5B_H_sapiens
MUC5B_C_lupus
MUC5B_M_musculus
MUC5B_R_norvegicus
MUC6_H_sapiens
MUC6_C_lupus
MUC6_M_musculus
MUC6_R_norvegicus
MUC6_G_gallus
MUC19_H_sapiens
MUC19_C_lupus
MUC19_B_taurus
MUC19_S_scrofa
MUC19_M_musculus
MUC19_R_norvegicus
FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
60
70
80
90
100
VWF_H_sapiens
MUC2_H_sapiens
MUC2_C_lupus
MUC2_E_caballus
MUC2_M_musculus
MUC2_R_norvegicus
MUC2_G_gallus
MUC5AC_H_sapiens
MUC5AC_C_lupus
MUC5AC_E_caballus
MUC5AC_M_musculus
MUC5AC_R_norvegicus
MUC5B_H_sapiens
MUC5B_C_lupus
MUC5B_M_musculus
MUC5B_R_norvegicus
MUC6_H_sapiens
MUC6_C_lupus
MUC6_M_musculus
MUC6_R_norvegicus
MUC6_G_gallus
MUC19_H_sapiens
MUC19_C_lupus
MUC19_B_taurus
MUC19_S_scrofa
MUC19_M_musculus
MUC19_R_norvegicus
FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
110
120
130
140
150
VWF_H_sapiens
MUC2_H_sapiens
MUC2_C_lupus
MUC2_E_caballus
MUC2_M_musculus
MUC2_R_norvegicus
MUC2_G_gallus
MUC5AC_H_sapiens
MUC5AC_C_lupus
MUC5AC_E_caballus
MUC5AC_M_musculus
MUC5AC_R_norvegicus
MUC5B_H_sapiens
MUC5B_C_lupus
MUC5B_M_musculus
MUC5B_R_norvegicus
MUC6_H_sapiens
MUC6_C_lupus
MUC6_M_musculus
MUC6_R_norvegicus
MUC6_G_gallus
MUC19_H_sapiens
MUC19_C_lupus
MUC19_B_taurus
MUC19_S_scrofa
MUC19_M_musculus
MUC19_R_norvegicus
FIMB1_X_laevis


C G . . . . . All Match Human VWF
C G . F N . . . . . P . . F . N . . . . . C . . . . . Majority Match Human VWF
C G D F N G L P G D N E F L S - E G I R L S P I E F G N L Q K L D K P T E Q C E D P V P X - P - - N Majority
160
170
180
190
200
162 C G N F N I F A E D D F M T Q E G T L T S D P Y D F A N S W A L S S G E Q W C E R A S P P S S S C N VWF_H_sapiens
169 C G D Y N G L Q S Y S E F L S - D G V L F S P L E F G N M Q K I N Q P D V V C E D P E E E V A P A S MUC2_H_sapiens
169 C G D Y N G L Q T Y S E F L S - D G V L F S A I E F G T M Q K I N K P G V V C D D P E E E P A L E S MUC2_C_lupus
169 C G D Y N G L Q S Y S E F L S - D G L L F S A V Q F G N M Q K I N K P D V V C D D P E E G R T P E S MUC2_E_caballus
166 C G D F N G M Q T N Y E F L S E E G I Q F S A I E F G N M Q K I N K P E V Q C E D P E A V Q E P E S MUC2_M_musculus
166 C G D F N G M Q A N N E F L S - D G I R F S A I E F G N M Q K I N K P E V V C E D P E E V Q E P E S MUC2_R_norvegicus
165 C G D Y N G V P I Y N E F I S - G V A S Y N S I T Y G N L Q K I S K P N D E C E D P D E T R A L P S MUC2_G_gallus
211 C G D F N G M P V V S E L L S - H N T K L T P M E F G N L Q K M D D P T E Q C Q D P V P E - P P R N MUC5AC_H_sapiens
206 C G D F N S E P V F N E F L S - H G V K L T P I Q F G N L Q K M D G P T E Q C Q D P V P V - P M M D MUC5AC_C_lupus
210 C G D F N G V P I F N E F F S - H N V K L T P F E F G N L Q K M D G P M E Q C Q D P I P A - S P A N MUC5AC_E_caballus
210 C G D F N G S P K S N E F L S - N N V R L T P L E F G N L Q K M D G P T E Q C Q D P L P V - P Q K N MUC5AC_M_musculus
210 C G D F N G S P E S S E F L S - H N V R L T P L E F G N F Q K M D G P T E Q C Q D P L P V - P Q K N MUC5AC_R_norvegicus
207 C G D F N G L P A F N E F Y A - H N A R L T P L Q F G N L Q K L D G P T E Q C P D P L P L - P A G N MUC5B_H_sapiens
207 C G D F N G L P A V N E F Y S - H N A R L T P L Q F G N L Q K L D G P T E Q C Q D P P P S - P A N N MUC5B_C_lupus
211 C G D F N G L P A V S E F Y T - H N T R L T P V Q F G N L Q K L D G P T E Q C Q D V L P S - A V S N MUC5B_M_musculus
211 C G D F N G L P A V N E F Y A - H N T R L T P V Q F G N L Q K L D G P T E Q C Q D V L L S - P A N N MUC5B_R_norvegicus
176 C G N F D G - K V T N E F V S E E G K F L E P H K F A A L Q K L D D P G E I C T F Q D I P S T H V R MUC6_H_sapiens
178 C G D F N G - E Q T N E F L S E E G K F L E P H T Y A A L Q T L D D P D E I C T Y K A V P N P Q V P MUC6_C_lupus
177 C G N F D G - K I D N E F L S E D G K L L E A H K Y A T L Q K L D D P N E I C A H E A I P S T I I L MUC6_M_musculus
176 C G N F D G - K I D N E F L S E D G K L L E P H K Y A T L Q K L D D P N E I C A H E A I P S P S I L MUC6_R_norvegicus
138 C G N Y D G - Y E L N D F V S E - G K L L D T Y K F A A L Q K M D D P S E I C L S E E I S I P A I P MUC6_G_gallus
734 C G N F N S T P G Q - D I N - - E H I A N S K I P G D C P N A V G K S Y E V C E D G I Q H - - - - - MUC19_H_sapiens
237 C G N F N S T P G D - N I N - - E H I A R S K I P G D C P K A V S K N Y E V C E D G V Q H - - - - - MUC19_C_lupus
473 C G N F N S T P G D - D I N - - E H I A D S K I P D D C S K A V S K S Y E V C E D G V Q Y - - - - - MUC19_B_taurus
256 C G N F N N T P G E - D I D - - E H I A N S K I P G N C P N A V S K S Y E L C E D G V Q H - - - - - MUC19_S_scrofa
182 C G N F D S V P G D - D V N - - E H I A S S K I S N D C P S P L S R S N E V C E D G V Q Y - - - - - MUC19_M_musculus
182 C G D F N S V P G E E D I N - - E H I A N S K I S N D C P S T L S R N N E V C E D G V Q Y - - - - - MUC19_R_norvegicus
299 C G G S K D N T D D - - - - - - K T F F E S Q I I E K D G E T E F I T S D P E D E G T K Y - - - - - FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
210
220
230
240
250
212 VWF_H_sapiens
218 MUC2_H_sapiens
218 MUC2_C_lupus
218 MUC2_E_caballus
216 MUC2_M_musculus
215 MUC2_R_norvegicus
214 MUC2_G_gallus
259 MUC5AC_H_sapiens
254 MUC5AC_C_lupus
258 MUC5AC_E_caballus
258 MUC5AC_M_musculus
258 MUC5AC_R_norvegicus
255 MUC5B_H_sapiens
255 MUC5B_C_lupus
259 MUC5B_M_musculus
259 MUC5B_R_norvegicus
225 MUC6_H_sapiens
227 MUC6_C_lupus
226 MUC6_M_musculus
225 MUC6_R_norvegicus
186 MUC6_G_gallus
776 MUC19_H_sapiens
279 MUC19_C_lupus
515 MUC19_B_taurus
298 MUC19_S_scrofa
224 MUC19_M_musculus
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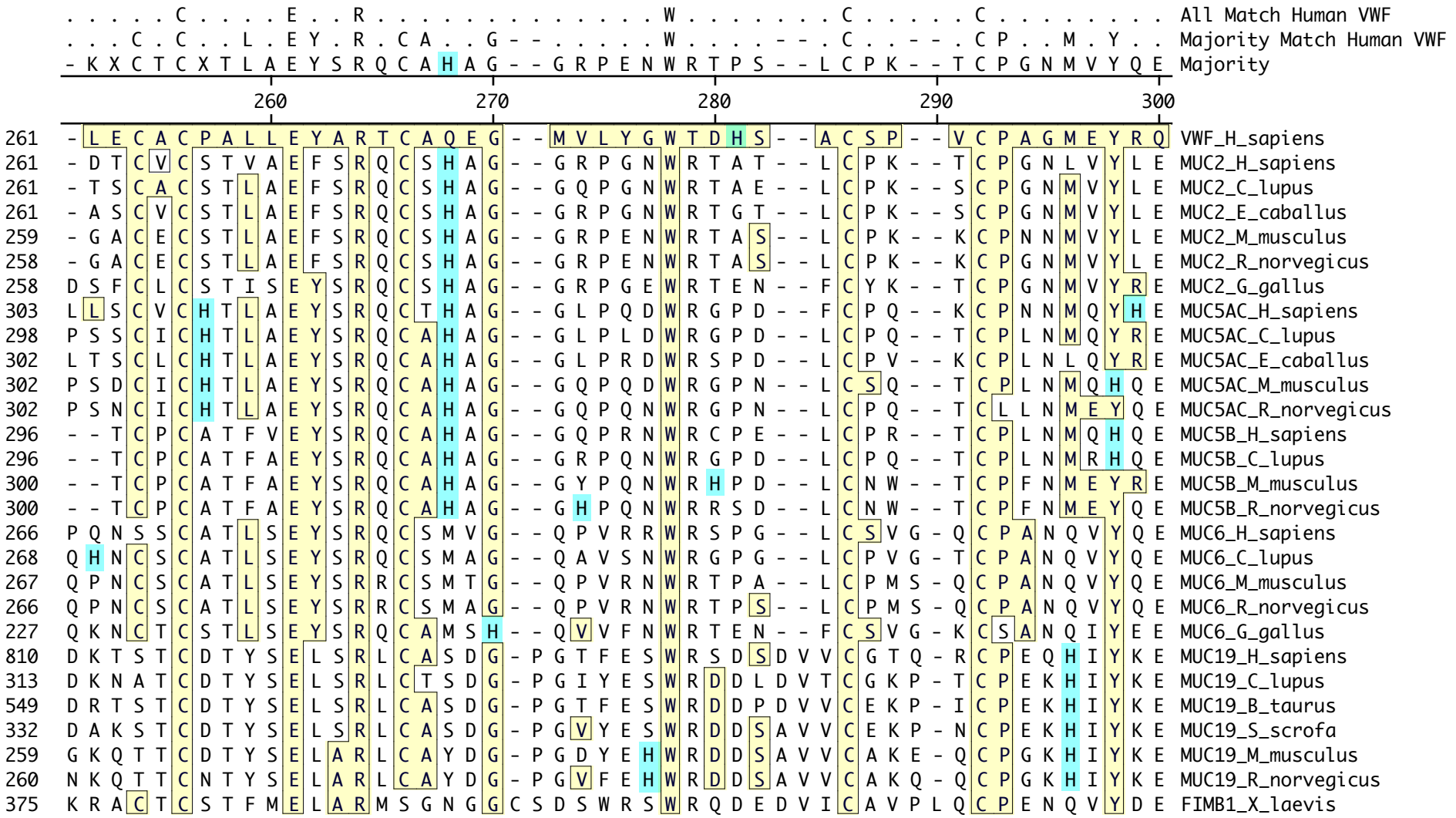
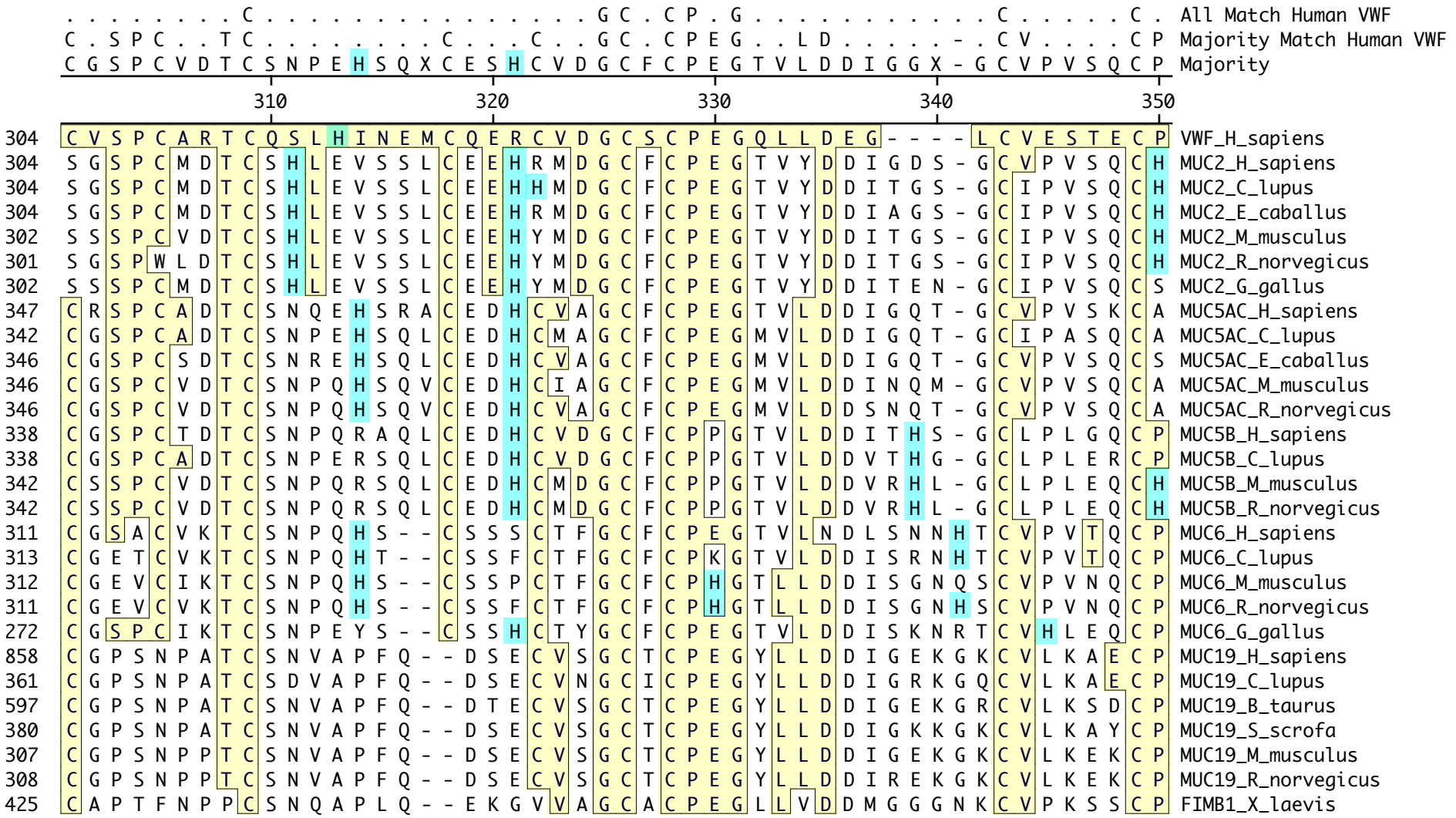
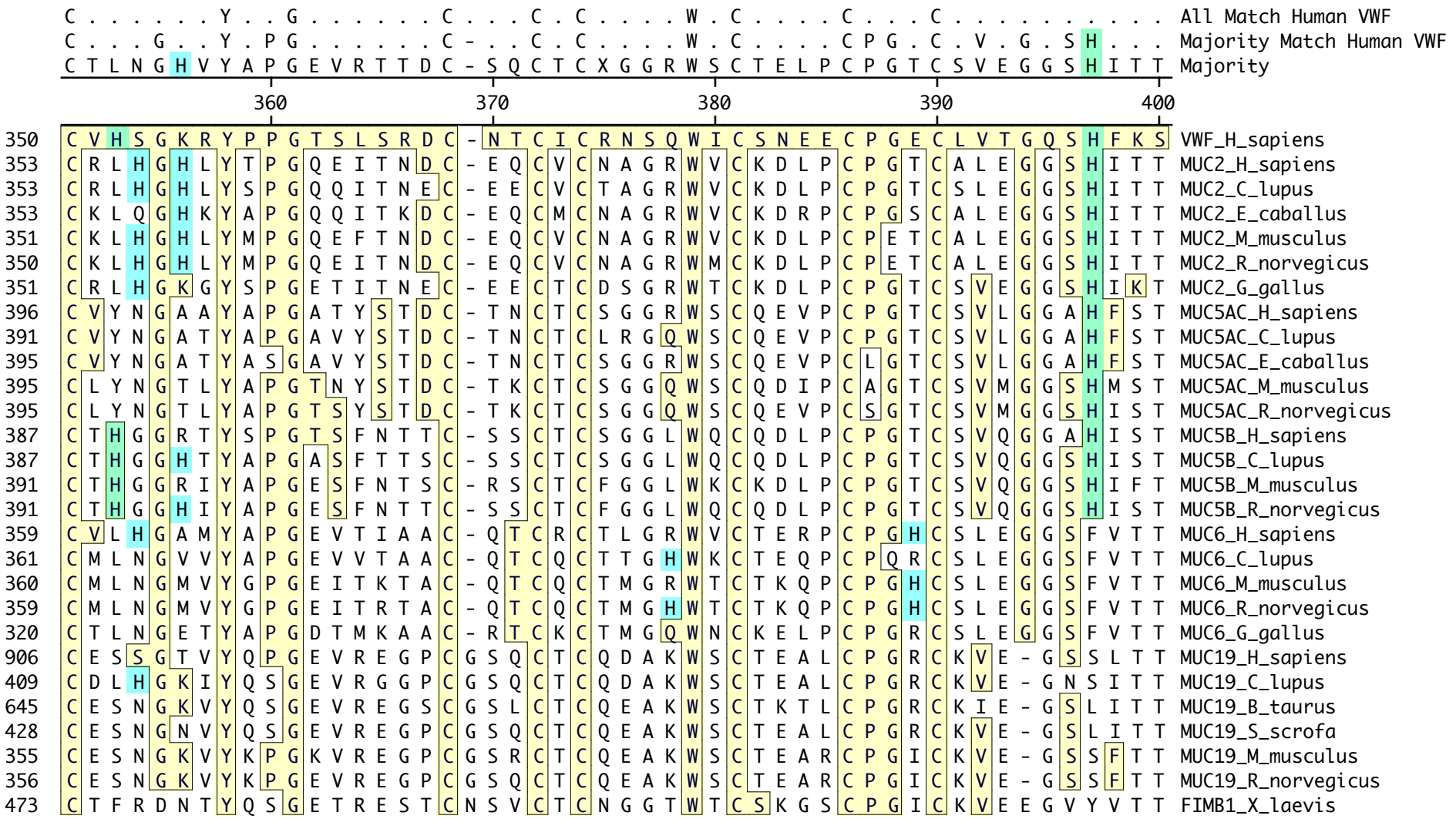
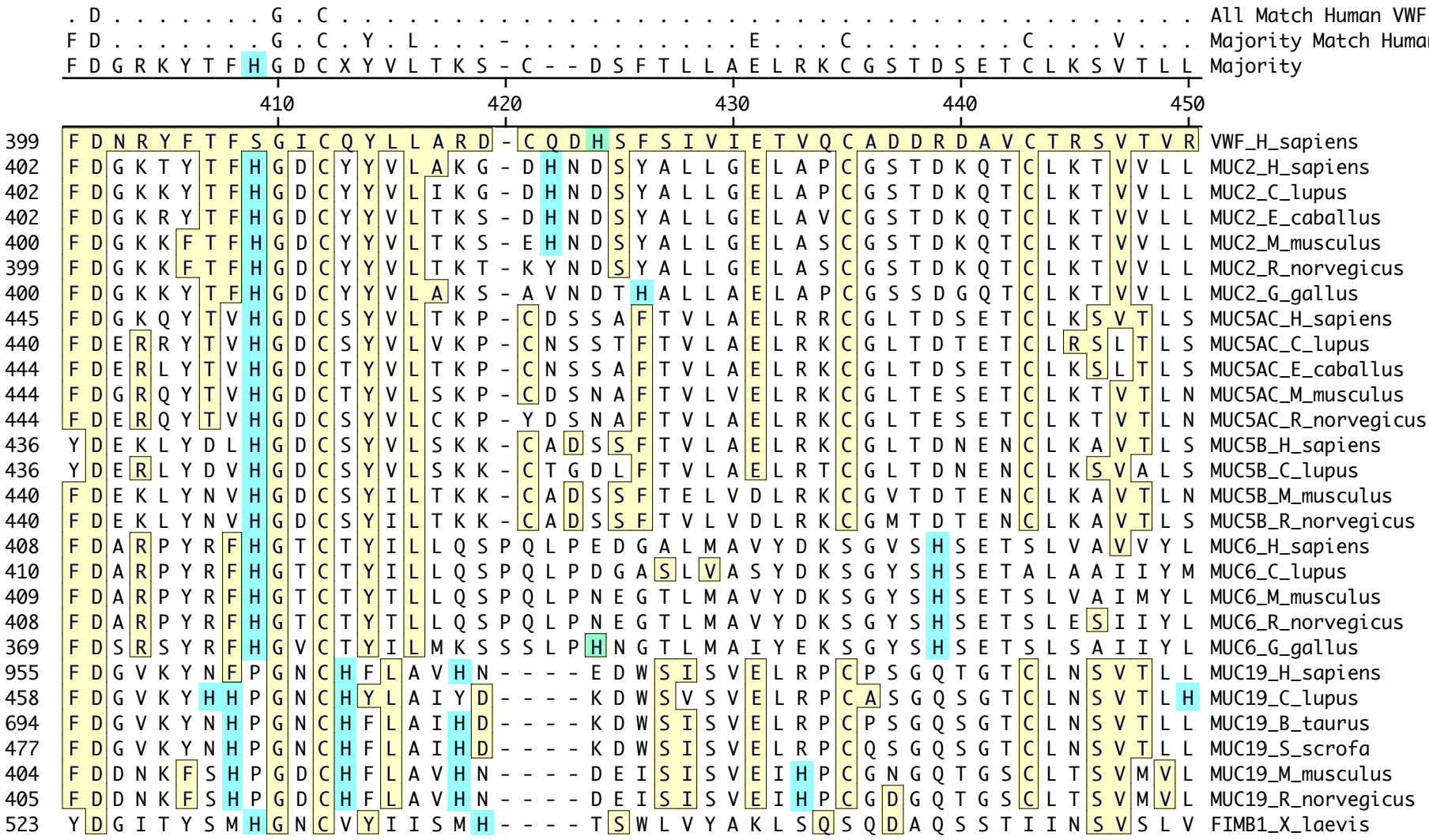
338 FIMB1_X_laevis


. . . . . C . . . . E . . R . . . . W . . . . C . . . . . C . . . . All Match Human VWF
. . . C . C . . L . E Y . R . C A . . G - - . . . . . W . . . . - - . C . . - - . C P . . M . Y . . Majority Match Human VWF
- K X C T C X T L A E Y S R Q C A H A G - - G R P E N W R T P S - - L C P K - - T C P G N M V Y Q E Majority
260
270
280
290
300
261 - L E C A C P A L L E Y A R T C A Q E G - - M V L Y G W T D H S - - A C S P - - V C P A G M E Y R Q VWF_H_sapiens
261 - D T C V C S T V A E F S R Q C S H A G - - G R P G N W R T A T - - L C P K - - T C P G N L V Y L E MUC2_H_sapiens
261 - T S C A C S T L A E F S R Q C S H A G - - G Q P G N W R T A E - - L C P K - - S C P G N M V Y L E MUC2_C_lupus
261 - A S C V C S T L A E F S R Q C S H A G - - G R P G N W R T G T - - L C P K - - S C P G N M V Y L E MUC2_E_caballus
259 - G A C E C S T L A E F S R Q C S H A G - - G R P E N W R T A S - - L C P K - - K C P N N M V Y L E MUC2_M_musculus
258 - G A C E C S T L A E F S R Q C S H A G - - G R P E N W R T A S - - L C P K - - K C P G N M V Y L E MUC2_R_norvegicus
258 D S F C L C S T I S E Y S R Q C S H A G - - G R P G E W R T E N - - F C Y K - - T C P G N M V Y R E MUC2_G_gallus
303 L L S C V C H T L A E Y S R Q C T H A G - - G L P Q D W R G P D - - F C P Q - - K C P N N M Q Y H E MUC5AC_H_sapiens
298 P S S C I C H T L A E Y S R Q C A H A G - - G L P L D W R G P D - - L C P Q - - T C P L N M Q Y R E MUC5AC_C_lupus
302 L T S C L C H T L A E Y S R Q C A H A G - - G L P R D W R S P D - - L C P V - - K C P L N L Q Y R E MUC5AC_E_caballus
302 P S D C I C H T L A E Y S R Q C A H A G - - G Q P Q D W R G P N - - L C S Q - - T C P L N M Q H Q E MUC5AC_M_musculus
302 P S N C I C H T L A E Y S R Q C A H A G - - G Q P Q N W R G P N - - L C P Q - - T C L L N M E Y Q E MUC5AC_R_norvegicus
296 - - T C P C A T F V E Y S R Q C A H A G - - G Q P R N W R C P E - - L C P R - - T C P L N M Q H Q E MUC5B_H_sapiens
296 - - T C P C A T F A E Y S R Q C A H A G - - G R P Q N W R G P D - - L C P Q - - T C P L N M R H Q E MUC5B_C_lupus
300 - - T C P C A T F A E Y S R Q C A H A G - - G Y P Q N W R H P D - - L C N W - - T C P F N M E Y R E MUC5B_M_musculus
300 - - T C P C A T F A E Y S R Q C A H A G - - G H P Q N W R R S D - - L C N W - - T C P F N M E Y Q E MUC5B_R_norvegicus
266 P Q N S S C A T L S E Y S R Q C S M V G - - Q P V R R W R S P G - - L C S V G - Q C P A N Q V Y Q E MUC6_H_sapiens
268 Q H N C S C A T L S E Y S R Q C S M A G - - Q A V S N W R G P G - - L C P V G - T C P A N Q V Y Q E MUC6_C_lupus
267 Q P N C S C A T L S E Y S R R C S M T G - - Q P V R N W R T P A - - L C P M S - Q C P A N Q V Y Q E MUC6_M_musculus
266 Q P N C S C A T L S E Y S R R C S M A G - - Q P V R N W R T P S - - L C P M S - Q C P A N Q V Y Q E MUC6_R_norvegicus
227 Q K N C T C S T L S E Y S R Q C A M S H - - Q V V F N W R T E N - - F C S V G - K C S A N Q I Y E E MUC6_G_gallus
810 D K T S T C D T Y S E L S R L C A S D G - P G T F E S W R S D S D V V C G T Q - R C P E Q H I Y K E MUC19_H_sapiens
313 D K N A T C D T Y S E L S R L C T S D G - P G I Y E S W R D D L D V T C G K P - T C P E K H I Y K E MUC19_C_lupus
549 D R T S T C D T Y S E L S R L C A S D G - P G T F E S W R D D P D V V C E K P - I C P E K H I Y K E MUC19_B_taurus
332 D A K S T C D T Y S E L S R L C A S D G - P G V Y E S W R D D S A V V C E K P - N C P E K H I Y K E MUC19_S_scrofa
259 G K Q T T C D T Y S E L A R L C A Y D G - P G D Y E H W R D D S A V V C A K E - Q C P G K H I Y K E MUC19_M_musculus
260 N K Q T T C N T Y S E L A R L C A Y D G - P G V F E H W R D D S A V V C A K Q - Q C P G K H I Y K E MUC19_R_norvegicus
375 K R A C T C S T F M E L A R M S G N G G C S D S W R S W R Q D E D V I C A V P L Q C P E N Q V Y D E FIMB1_X_laevis


. . . . . C . . . . . G C . C P . G . . . . . C . . . . . C . All Match Human VWF
C . S P C . . T C . . . . . C . . . C . . G C . C P E G . . L D . . . . . - . C V . . . . C P Majority Match Human VWF
C G S P C V D T C S N P E H S Q X C E S H C V D G C F C P E G T V L D D I G G X - G C V P V S Q C P Majority
310
320
330
340
350
304 C V S P C A R T C Q S L H I N E M C Q E R C V D G C S C P E G Q L L D E G - - - - L C V E S T E C P VWF_H_sapiens
304 S G S P C M D T C S H L E V S S L C E E H R M D G C F C P E G T V Y D D I G D S - G C V P V S Q C H MUC2_H_sapiens
304 S G S P C M D T C S H L E V S S L C E E H H M D G C F C P E G T V Y D D I T G S - G C I P V S Q C H MUC2_C_lupus
304 S G S P C M D T C S H L E V S S L C E E H R M D G C F C P E G T V Y D D I A G S - G C I P V S Q C H MUC2_E_caballus
302 S S S P C V D T C S H L E V S S L C E E H Y M D G C F C P E G T V Y D D I T G S - G C I P V S Q C H MUC2_M_musculus
301 S G S P W L D T C S H L E V S S L C E E H Y M D G C F C P E G T V Y D D I T G S - G C I P V S Q C H MUC2_R_norvegicus
302 S S S P C M D T C S H L E V S S L C E E H Y M D G C F C P E G T V Y D D I T E N - G C I P V S Q C S MUC2_G_gallus
347 C R S P C A D T C S N Q E H S R A C E D H C V A G C F C P E G T V L D D I G Q T - G C V P V S K C A MUC5AC_H_sapiens
342 C G S P C A D T C S N P E H S Q L C E D H C M A G C F C P E G M V L D D I G Q T - G C I P A S Q C A MUC5AC_C_lupus
346 C G S P C S D T C S N R E H S Q L C E D H C V A G C F C P E G M V L D D I G Q T - G C V P V S Q C S MUC5AC_E_caballus
346 C G S P C V D T C S N P Q H S Q V C E D H C I A G C F C P E G M V L D D I N Q M - G C V P V S Q C A MUC5AC_M_musculus
346 C G S P C V D T C S N P Q H S Q V C E D H C V A G C F C P E G M V L D D S N Q T - G C V P V S Q C A MUC5AC_R_norvegicus
338 C G S P C T D T C S N P Q R A Q L C E D H C V D G C F C P P G T V L D D I T H S - G C L P L G Q C P MUC5B_H_sapiens
338 C G S P C A D T C S N P E R S Q L C E D H C V D G C F C P P G T V L D D V T H G - G C L P L E R C P MUC5B_C_lupus
342 C S S P C V D T C S N P Q R S Q L C E D H C M D G C F C P P G T V L D D V R H L - G C L P L E Q C H MUC5B_M_musculus
342 C S S P C V D T C S N P Q R S Q L C E D H C M D G C F C P P G T V L D D V R H L - G C L P L E Q C H MUC5B_R_norvegicus
311 C G S A C V K T C S N P Q H S - - C S S S C T F G C F C P E G T V L N D L S N N H T C V P V T Q C P MUC6_H_sapiens
313 C G E T C V K T C S N P Q H T - - C S S F C T F G C F C P K G T V L D D I S R N H T C V P V T Q C P MUC6_C_lupus
312 C G E V C I K T C S N P Q H S - - C S S P C T F G C F C P H G T L L D D I S G N Q S C V P V N Q C P MUC6_M_musculus
311 C G E V C V K T C S N P Q H S - - C S S F C T F G C F C P H G T L L D D I S G N H S C V P V N Q C P MUC6_R_norvegicus
272 C G S P C I K T C S N P E Y S - - C S S H C T Y G C F C P E G T V L D D I S K N R T C V H L E Q C P MUC6_G_gallus
858 C G P S N P A T C S N V A P F Q - - D S E C V S G C T C P E G Y L L D D I G E K G K C V L K A E C P MUC19_H_sapiens
361 C G P S N P A T C S D V A P F Q - - D S E C V N G C I C P E G Y L L D D I G R K G Q C V L K A E C P MUC19_C_lupus
597 C G P S N P A T C S N V A P F Q - - D T E C V S G C T C P E G Y L L D D I G E K G R C V L K S D C P MUC19_B_taurus
380 C G P S N P A T C S N V A P F Q - - D S E C V S G C T C P E G Y L L D D I G K K G K C V L K A Y C P MUC19_S_scrofa
307 C G P S N P P T C S N V A P F Q - - D S E C V S G C T C P E G Y L L D D I G E K G K C V L K E K C P MUC19_M_musculus
308 C G P S N P P T C S N V A P F Q - - D S E C V S G C T C P E G Y L L D D I R E K G K C V L K E K C P MUC19_R_norvegicus
425 C A P T F N P P C S N Q A P L Q - - E K G V V A G C A C P E G L L V D D M G G G N K C V P K S S C P FIMB1_X_laevis


C . . . . . Y . . G . . . . . . C . . . C . C . . . . W . C . . . . C . . . C . . . . All Match Human VWF
C . . . G . . Y . P G . . . . . . C - . . . C . C . . . . W . C . . . . C P G . C . V . G . S H . . . Majority Match Human VWF
C T L N G H V Y A P G E V R T T D C - S Q C T C X G G R W S C T E L P C P G T C S V E G G S H I T T Majority
360
370
380
390
400
350 C V H S G K R Y P P G T S L S R D C - N T C I C R N S Q W I C S N E E C P G E C L V T G Q S H F K S VWF_H_sapiens
353 C R L H G H L Y T P G Q E I T N D C - E Q C V C N A G R W V C K D L P C P G T C A L E G G S H I T T MUC2_H_sapiens
353 C R L H G H L Y S P G Q Q I T N E C - E E C V C T A G R W V C K D L P C P G T C S L E G G S H I T T MUC2_C_lupus
353 C K L Q G H K Y A P G Q Q I T K D C - E Q C M C N A G R W V C K D R P C P G S C A L E G G S H I T T MUC2_E_caballus
351 C K L H G H L Y M P G Q E F T N D C - E Q C V C N A G R W V C K D L P C P E T C A L E G G S H I T T MUC2_M_musculus
350 C K L H G H L Y M P G Q E I T N D C - E Q C V C N A G R W M C K D L P C P E T C A L E G G S H I T T MUC2_R_norvegicus
351 C R L H G K G Y S P G E T I T N E C - E E C T C D S G R W T C K D L P C P G T C S V E G G S H I K T MUC2_G_gallus
396 C V Y N G A A Y A P G A T Y S T D C - T N C T C S G G R W S C Q E V P C P G T C S V L G G A H F S T MUC5AC_H_sapiens
391 C V Y N G A T Y A P G A V Y S T D C - T N C T C L R G Q W S C Q E V P C P G T C S V L G G A H F S T MUC5AC_C_lupus
395 C V Y N G A T Y A S G A V Y S T D C - T N C T C S G G R W S C Q E V P C L G T C S V L G G A H F S T MUC5AC_E_caballus
395 C L Y N G T L Y A P G T N Y S T D C - T K C T C S G G Q W S C Q D I P C A G T C S V M G G S H M S T MUC5AC_M_musculus
395 C L Y N G T L Y A P G T S Y S T D C - T K C T C S G G Q W S C Q E V P C S G T C S V M G G S H I S T MUC5AC_R_norvegicus
387 C T H G G R T Y S P G T S F N T T C - S S C T C S G G L W Q C Q D L P C P G T C S V Q G G A H I S T MUC5B_H_sapiens
387 C T H G G H T Y A P G A S F T T S C - S S C T C S G G L W Q C Q D L P C P G T C S V Q G G S H I S T MUC5B_C_lupus
391 C T H G G R I Y A P G E S F N T S C - R S C T C F G G L W K C K D L P C P G T C S V Q G G S H I F T MUC5B_M_musculus
391 C T H G G H I Y A P G E S F N T T C - S S C T C F G G L W Q C Q D L P C P G T C S V Q G G S H I S T MUC5B_R_norvegicus
359 C V L H G A M Y A P G E V T I A A C - Q T C R C T L G R W V C T E R P C P G H C S L E G G S F V T T MUC6_H_sapiens
361 C M L N G V V Y A P G E V V T A A C - Q T C Q C T T G H W K C T E Q P C P Q R C S L E G G S F V T T MUC6_C_lupus
360 C M L N G M V Y G P G E I T K T A C - Q T C Q C T M G R W T C T K Q P C P G H C S L E G G S F V T T MUC6_M_musculus
359 C M L N G M V Y G P G E I T R T A C - Q T C Q C T M G H W T C T K Q P C P G H C S L E G G S F V T T MUC6_R_norvegicus
320 C T L N G E T Y A P G D T M K A A C - R T C K C T M G Q W N C K E L P C P G R C S L E G G S F V T T MUC6_G_gallus
906 C E S S G T V Y Q P G E V R E G P C G S Q C T C Q D A K W S C T E A L C P G R C K V E - G S S L T T MUC19_H_sapiens
409 C D L H G K I Y Q S G E V R G G P C G S Q C T C Q D A K W S C T E A L C P G R C K V E - G N S I T T MUC19_C_lupus
645 C E S N G K V Y Q S G E V R E G S C G S L C T C Q E A K W S C T K T L C P G R C K I E - G S L I T T MUC19_B_taurus
428 C E S N G N V Y Q S G E V R E G P C G S Q C T C Q E A K W S C T E A L C P G R C K V E - G S L I T T MUC19_S_scrofa
355 C E S N G K V Y K P G K V R E G P C G S R C T C Q E A K W S C T E A R C P G I C K V E - G S S F T T MUC19_M_musculus
356 C E S N G K V Y K P G E V R E G P C G S Q C T C Q E A K W S C T E A R C P G I C K V E - G S S F T T MUC19_R_norvegicus
473 C T F R D N T Y Q S G E T R E S T C N S V C T C N G G T W T C S K G S C P G I C K V E E G V Y V T T FIMB1_X_laevis


. D . . . . . G . C . . . . . All Match Human VWF
F D . . . . . G . C . Y . L . . . - . . . . . E . . . C . . . . . C . . . V . . . Majority Match Human VWF
F D G R K Y T F H G D C X Y V L T K S - C - - D S F T L L A E L R K C G S T D S E T C L K S V T L L Majority
410
420
430
440
450
399 F D N R Y F T F S G I C Q Y L L A R D - C Q D H S F S I V I E T V Q C A D D R D A V C T R S V T V R VWF_H_sapiens
402 F D G K T Y T F H G D C Y Y V L A K G - D H N D S Y A L L G E L A P C G S T D K Q T C L K T V V L L MUC2_H_sapiens
402 F D G K K Y T F H G D C Y Y V L I K G - D H N D S Y A L L G E L A P C G S T D K Q T C L K T V V L L MUC2_C_lupus
402 F D G K R Y T F H G D C Y Y V L T K S - D H N D S Y A L L G E L A V C G S T D K Q T C L K T V V L L MUC2_E_caballus
400 F D G K K F T F H G D C Y Y V L T K S - E H N D S Y A L L G E L A S C G S T D K Q T C L K T V V L L MUC2_M_musculus
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400 F D G K K Y T F H G D C Y Y V L A K S - A V N D T H A L L A E L A P C G S S D G Q T C L K T V V L L MUC2_G_gallus
445 F D G K Q Y T V H G D C S Y V L T K P - C D S S A F T V L A E L R R C G L T D S E T C L K S V T L S MUC5AC_H_sapiens
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444 F D G R Q Y T V H G D C T Y V L S K P - C D S N A F T V L V E L R K C G L T E S E T C L K T V T L N MUC5AC_M_musculus
444 F D E R Q Y T V H G D C S Y V L C K P - Y D S N A F T V L A E L R K C G L T E S E T C L K T V T L N MUC5AC_R_norvegicus
436 Y D E K L Y D L H G D C S Y V L S K K - C A D S S F T V L A E L R K C G L T D N E N C L K A V T L S MUC5B_H_sapiens
436 Y D E R L Y D V H G D C S Y V L S K K - C T G D L F T V L A E L R T C G L T D N E N C L K S V A L S MUC5B_C_lupus
440 F D E K L Y N V H G D C S Y I L T K K - C A D S S F T E L V D L R K C G V T D T E N C L K A V T L N MUC5B_M_musculus
440 F D E K L Y N V H G D C S Y I L T K K - C A D S S F T V L V D L R K C G M T D T E N C L K A V T L S MUC5B_R_norvegicus
408 F D A R P Y R F H G T C T Y I L L Q S P Q L P E D G A L M A V Y D K S G V S H S E T S L V A V V Y L MUC6_H_sapiens
410 F D A R P Y R F H G T C T Y I L L Q S P Q L P D G A S L V A S Y D K S G Y S H S E T A L A A I I Y M MUC6_C_lupus
409 F D A R P Y R F H G T C T Y T L L Q S P Q L P N E G T L M A V Y D K S G Y S H S E T S L V A I M Y L MUC6_M_musculus
408 F D A R P Y R F H G T C T Y T L L Q S P Q L P N E G T L M A V Y D K S G Y S H S E T S L E S I I Y L MUC6_R_norvegicus
369 F D S R S Y R F H G V C T Y I L M K S S S L P H N G T L M A I Y E K S G Y S H S E T S L S A I I Y L MUC6_G_gallus
955 F D G V K Y N F P G N C H F L A V H N - - - - E D W S I S V E L R P C P S G Q T G T C L N S V T L L MUC19_H_sapiens
458 F D G V K Y H H P G N C H Y L A I Y D - - - - K D W S V S V E L R P C A S G Q S G T C L N S V T L H MUC19_C_lupus
694 F D G V K Y N H P G N C H F L A I H D - - - - K D W S I S V E L R P C P S G Q S G T C L N S V T L L MUC19_B_taurus
477 F D G V K Y N H P G N C H F L A I H D - - - - K D W S I S V E L R P C Q S G Q S G T C L N S V T L L MUC19_S_scrofa
404 F D D N K F S H P G D C H F L A V H N - - - - D E I S I S V E I H P C G N G Q T G S C L T S V M V L MUC19_M_musculus
405 F D D N K F S H P G D C H F L A V H N - - - - D E I S I S V E I H P C G D G Q T G S C L T S V M V L MUC19_R_norvegicus
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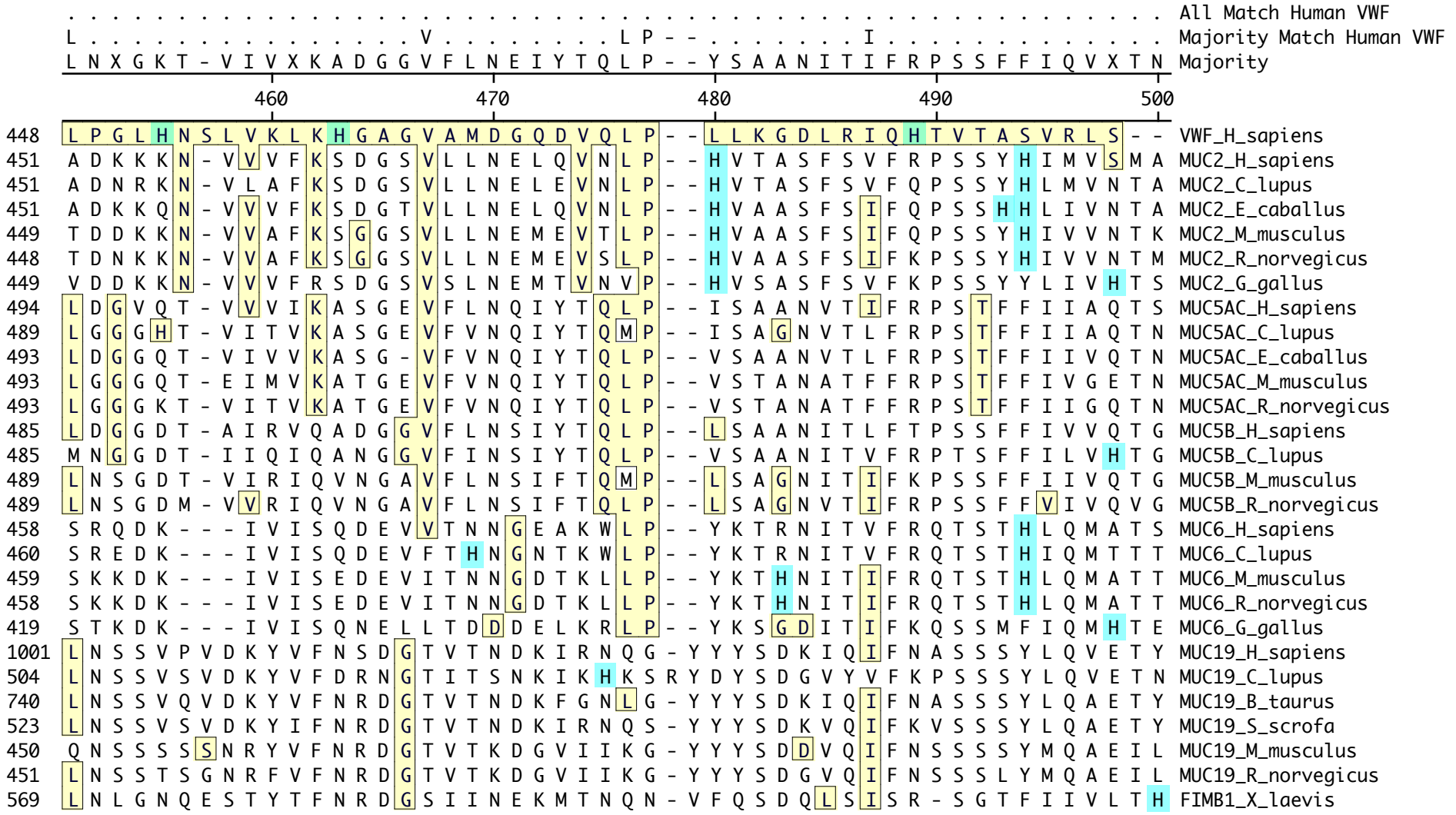
All Match Human VWF
Majority Match Human VWF
Majority
460
470
480
490
500
448 VWF_H_sapiens
451 MUC2_H_sapiens
451 MUC2_C_lupus
451 MUC2_E_caballus
449 MUC2_M_musculus
448 MUC2_R_norvegicus
449 MUC2_G_gallus
494 MUC5AC_H_sapiens
489 MUC5AC_C_lupus
493 MUC5AC_E_caballus
493 MUC5AC_M_musculus
493 MUC5AC_R_norvegicus
485 MUC5B_H_sapiens
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489 MUC5B_M_musculus
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459 MUC6_M_musculus
458 MUC6_R_norvegicus
419 MUC6_G_gallus
1001 MUC19_H_sapiens
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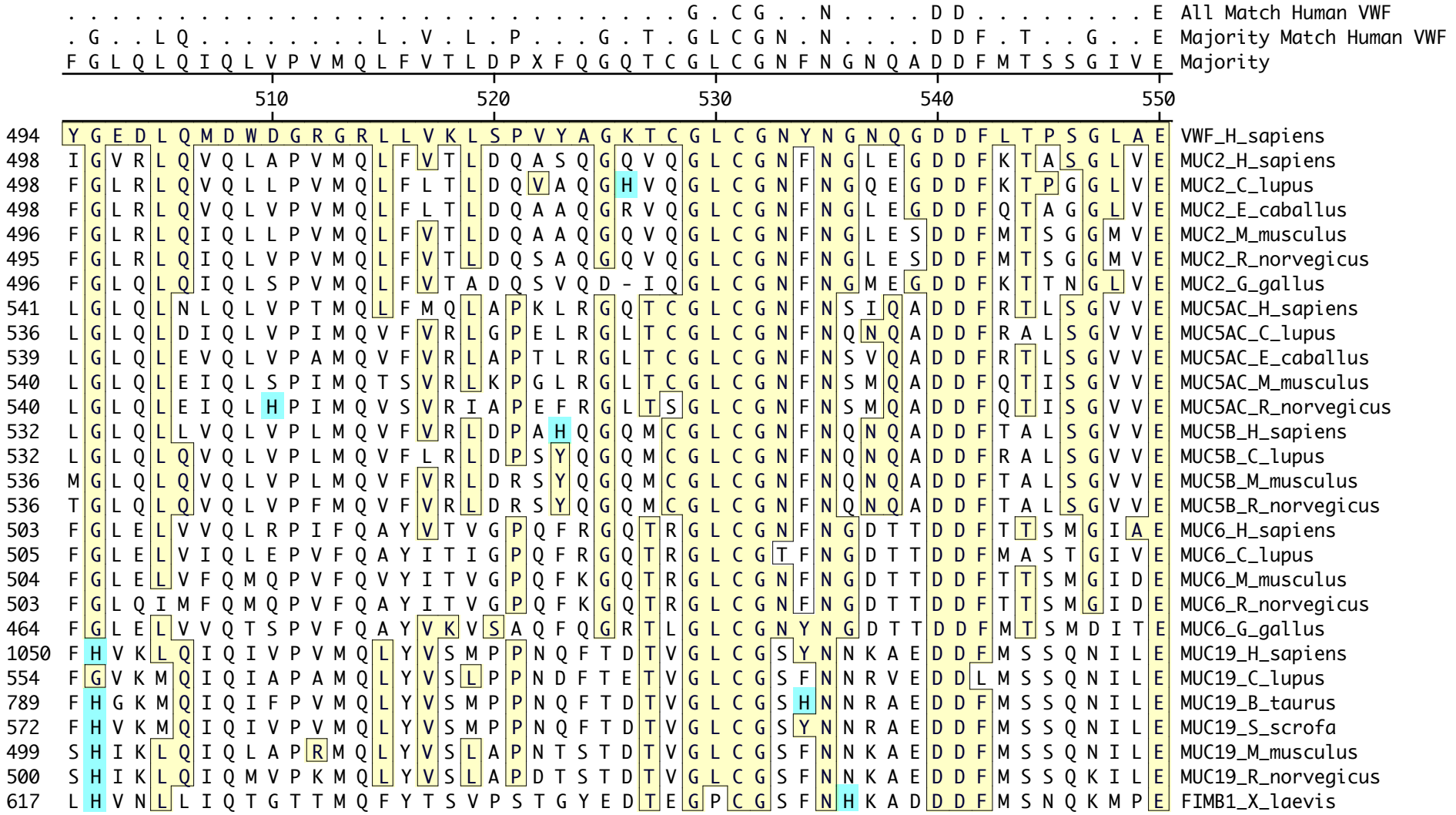
. . . . . G . C G . . N . . . . D D . . . . . E All Match Human VWF
. G . . L Q . . . . . L . V . L . P . . . G . T . G L C G N . N . . . . D D F . T . . G . . E Majority Match Human VWF
F G L Q L Q I Q L V P V M Q L F V T L D P X F Q G Q T C G L C G N F N G N Q A D D F M T S S G I V E Majority
510
520
530
540
550
494 Y G E D L Q M D W D G R G R L L V K L S P V Y A G K T C G L C G N Y N G N Q G D D F L T P S G L A E VWF_H_sapiens
498 I G V R L Q V Q L A P V M Q L F V T L D Q A S Q G Q V Q G L C G N F N G L E G D D F K T A S G L V E MUC2_H_sapiens
498 F G L R L Q V Q L L P V M Q L F L T L D Q V A Q G H V Q G L C G N F N G Q E G D D F K T P G G L V E MUC2_C_lupus
498 F G L R L Q V Q L V P V M Q L F L T L D Q A A Q G R V Q G L C G N F N G L E G D D F Q T A G G L V E MUC2_E_caballus
496 F G L R L Q I Q L L P V M Q L F V T L D Q A A Q G Q V Q G L C G N F N G L E S D D F M T S G G M V E MUC2_M_musculus
495 F G L R L Q I Q L V P V M Q L F V T L D Q S A Q G Q V Q G L C G N F N G L E S D D F M T S G G M V E MUC2_R_norvegicus
496 F G L Q L Q I Q L S P V M Q L F V T A D Q S V Q D - I Q G L C G N F N G M E G D D F K T T N G L V E MUC2_G_gallus
541 L G L Q L N L Q L V P T M Q L F M Q L A P K L R G Q T C G L C G N F N S I Q A D D F R T L S G V V E MUC5AC_H_sapiens
536 L G L Q L D I Q L V P I M Q V F V R L G P E L R G L T C G L C G N F N Q N Q A D D F R A L S G V V E MUC5AC_C_lupus
539 L G L Q L E V Q L V P A M Q V F V R L A P T L R G L T C G L C G N F N S V Q A D D F R T L S G V V E MUC5AC_E_caballus
540 L G L Q L E I Q L S P I M Q T S V R L K P G L R G L T C G L C G N F N S M Q A D D F Q T I S G V V E MUC5AC_M_musculus
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532 L G L Q L L V Q L V P L M Q V F V R L D P A H Q G Q M C G L C G N F N Q N Q A D D F T A L S G V V E MUC5B_H_sapiens
532 L G L Q L Q V Q L V P L M Q V F L R L D P S Y Q G Q M C G L C G N F N Q N Q A D D F R A L S G V V E MUC5B_C_lupus
536 M G L Q L Q V Q L V P L M Q V F V R L D R S Y Q G Q M C G L C G N F N Q N Q A D D F T A L S G V V E MUC5B_M_musculus
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503 F G L E L V V Q L R P I F Q A Y V T V G P Q F R G Q T R G L C G N F N G D T T D D F T T S M G I A E MUC6_H_sapiens
505 F G L E L V I Q L E P V F Q A Y I T I G P Q F R G Q T R G L C G T F N G D T T D D F M A S T G I V E MUC6_C_lupus
504 F G L E L V F Q M Q P V F Q V Y I T V G P Q F K G Q T R G L C G N F N G D T T D D F T T S M G I D E MUC6_M_musculus
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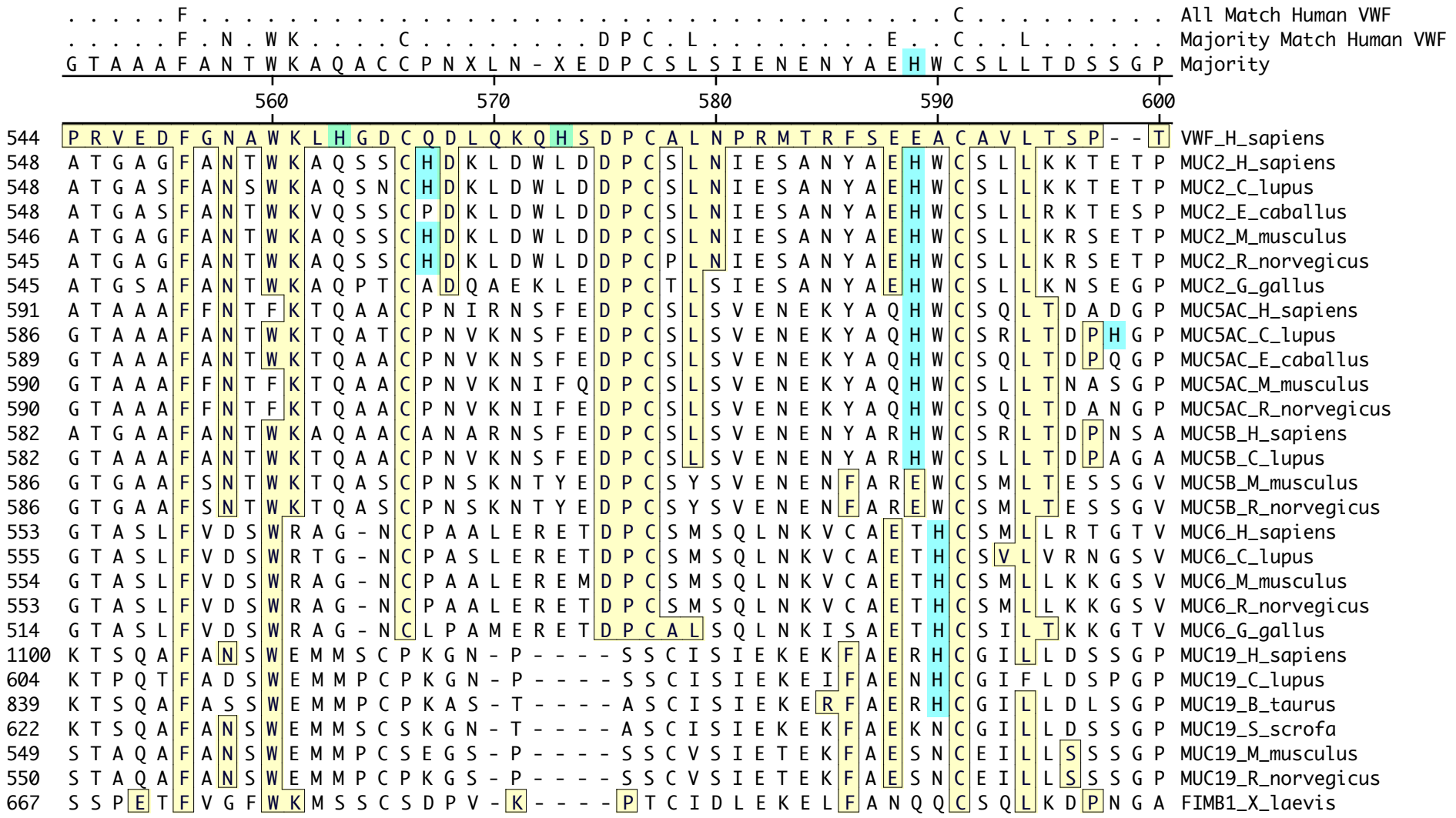
464 F G L E L V V Q T S P V F Q A Y V K V S A Q F Q G R T L G L C G N Y N G D T T D D F M T S M D I T E MUC6_G_gallus
1050 F H V K L Q I Q I V P V M Q L Y V S M P P N Q F T D T V G L C G S Y N N K A E D D F M S S Q N I L E MUC19_H_sapiens
554 F G V K M Q I Q I A P A M Q L Y V S L P P N D F T E T V G L C G S F N N R V E D D L M S S Q N I L E MUC19_C_lupus
789 F H G K M Q I Q I F P V M Q L Y V S M P P N Q F T D T V G L C G S H N N R A E D D F M S S Q N I L E MUC19_B_taurus
572 F H V K M Q I Q I V P V M Q L Y V S M P P N Q F T D T V G L C G S Y N N R A E D D F M S S Q N I L E MUC19_S_scrofa
499 S H I K L Q I Q L A P R M Q L Y V S L A P N T S T D T V G L C G S F N N K A E D D F M S S Q N I L E MUC19_M_musculus
500 S H I K L Q I Q M V P K M Q L Y V S L A P D T S T D T V G L C G S F N N K A E D D F M S S Q K I L E MUC19_R_norvegicus
617 L H V N L L I Q T G T T M Q F Y T S V P S T G Y E D T E G P C G S F N H K A D D D F M S N Q K M P E FIMB1_X_laevis


. . . . . F . . . . . C . . . . . All Match Human VWF
. . . . . F . N . W K . . . . C . . . . . D P C . L . . . . . E . . C . . L . . . . . Majority Match Human VWF
G T A A A F A N T W K A Q A C C P N X L N - X E D P C S L S I E N E N Y A E H W C S L L T D S S G P Majority
560
570
580
590
600
544 P R V E D F G N A W K L H G D C Q D L Q K Q H S D P C A L N P R M T R F S E E A C A V L T S P - - T VWF_H_sapiens
548 A T G A G F A N T W K A Q S S C H D K L D W L D D P C S L N I E S A N Y A E H W C S L L K K T E T P MUC2_H_sapiens
548 A T G A S F A N S W K A Q S N C H D K L D W L D D P C S L N I E S A N Y A E H W C S L L K K T E T P MUC2_C_lupus
548 A T G A S F A N T W K V Q S S C P D K L D W L D D P C S L N I E S A N Y A E H W C S L L R K T E S P MUC2_E_caballus
546 A T G A G F A N T W K A Q S S C H D K L D W L D D P C S L N I E S A N Y A E H W C S L L K R S E T P MUC2_M_musculus
545 A T G A G F A N T W K A Q S S C H D K L D W L D D P C P L N I E S A N Y A E H W C S L L K R S E T P MUC2_R_norvegicus
545 A T G S A F A N T W K A Q P T C A D Q A E K L E D P C T L S I E S A N Y A E H W C S L L K N S E G P MUC2_G_gallus
591 A T A A A F F N T F K T Q A A C P N I R N S F E D P C S L S V E N E K Y A Q H W C S Q L T D A D G P MUC5AC_H_sapiens
586 G T A A A F A N T W K T Q A T C P N V K N S F E D P C S L S V E N E K Y A Q H W C S R L T D P H G P MUC5AC_C_lupus
589 G T A A A F A N T W K T Q A A C P N V K N S F E D P C S L S V E N E K Y A Q H W C S Q L T D P Q G P MUC5AC_E_caballus
590 G T A A A F F N T F K T Q A A C P N V K N I F Q D P C S L S V E N E K Y A Q H W C S L L T N A S G P MUC5AC_M_musculus
590 G T A A A F F N T F K T Q A A C P N V K N I F E D P C S L S V E N E K Y A Q H W C S Q L T D A N G P MUC5AC_R_norvegicus
582 A T G A A F A N T W K A Q A A C A N A R N S F E D P C S L S V E N E N Y A R H W C S R L T D P N S A MUC5B_H_sapiens
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586 G T G A A F S N T W K T Q A S C P N S K N T Y E D P C S Y S V E N E N F A R E W C S M L T E S S G V MUC5B_M_musculus
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514 G T A S L F V D S W R A G - N C L P A M E R E T D P C A L S Q L N K I S A E T H C S I L T K K G T V MUC6_G_gallus
1100 K T S Q A F A N S W E M M S C P K G N - P - - - - S S C I S I E K E K F A E R H C G I L L D S S G P MUC19_H_sapiens
604 K T P Q T F A D S W E M M P C P K G N - P - - - - S S C I S I E K E I F A E N H C G I F L D S P G P MUC19_C_lupus
839 K T S Q A F A S S W E M M P C P K A S - T - - - - A S C I S I E K E R F A E R H C G I L L D L S G P MUC19_B_taurus
622 K T S Q A F A N S W E M M S C S K G N - T - - - - A S C I S I E K E K F A E K N C G I L L D S S G P MUC19_S_scrofa
549 S T A Q A F A N S W E M M P C S E G S - P - - - - S S C V S I E T E K F A E S N C E I L L S S S G P MUC19_M_musculus
550 S T A Q A F A N S W E M M P C P K G S - P - - - - S S C V S I E T E K F A E S N C E I L L S S S G P MUC19_R_norvegicus
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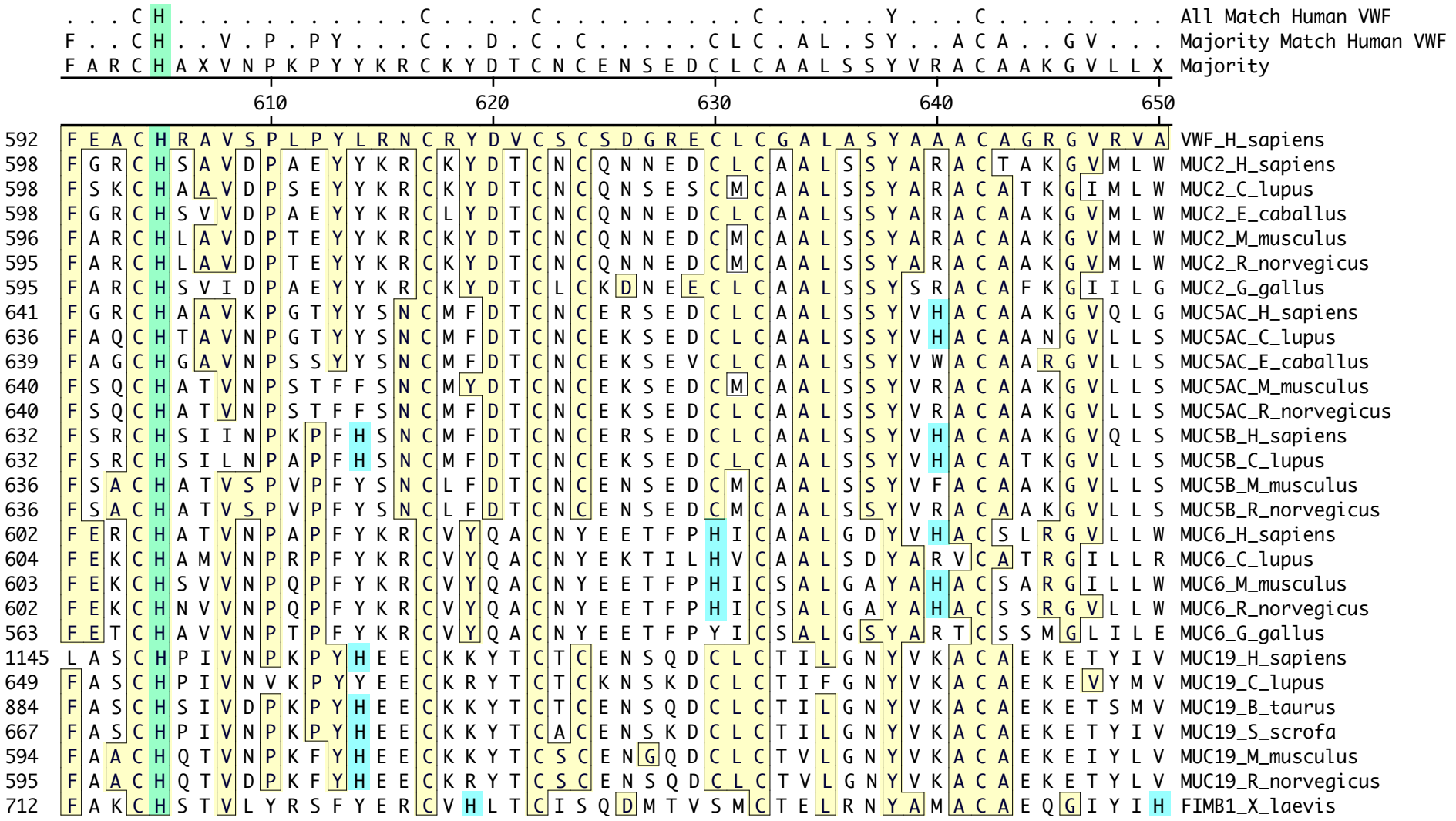
. . . C H . . . . . C . . . . C . . . . . C . . . . . Y . . . C . . . . . . All Match Human VWF
F . . C H . . V . P . P Y . . . C . . D . C . C . . . . . C L C . A L . S Y . . A C A . . G V . . . Majority Match Human VWF
F A R C H A X V N P K P Y Y K R C K Y D T C N C E N S E D C L C A A L S S Y V R A C A A K G V L L X Majority
610
620
630
640
650
592 F E A C H R A V S P L P Y L R N C R Y D V C S C S D G R E C L C G A L A S Y A A A C A G R G V R V A VWF_H_sapiens
598 F G R C H S A V D P A E Y Y K R C K Y D T C N C Q N N E D C L C A A L S S Y A R A C T A K G V M L W MUC2_H_sapiens
598 F S K C H A A V D P S E Y Y K R C K Y D T C N C Q N S E S C M C A A L S S Y A R A C A T K G I M L W MUC2_C_lupus
598 F G R C H S V V D P A E Y Y K R C L Y D T C N C Q N N E D C L C A A L S S Y A R A C A A K G V M L W MUC2_E_caballus
596 F A R C H L A V D P T E Y Y K R C K Y D T C N C Q N N E D C M C A A L S S Y A R A C A A K G V M L W MUC2_M_musculus
595 F A R C H L A V D P T E Y Y K R C K Y D T C N C Q N N E D C M C A A L S S Y A R A C A A K G V M L W MUC2_R_norvegicus
595 F A R C H S V I D P A E Y Y K R C K Y D T C L C K D N E E C L C A A L S S Y S R A C A F K G I I L G MUC2_G_gallus
641 F G R C H A A V K P G T Y Y S N C M F D T C N C E R S E D C L C A A L S S Y V H A C A A K G V Q L G MUC5AC_H_sapiens
636 F A Q C H T A V N P G T Y Y S N C M F D T C N C E K S E D C L C A A L S S Y V H A C A A N G V L L S MUC5AC_C_lupus
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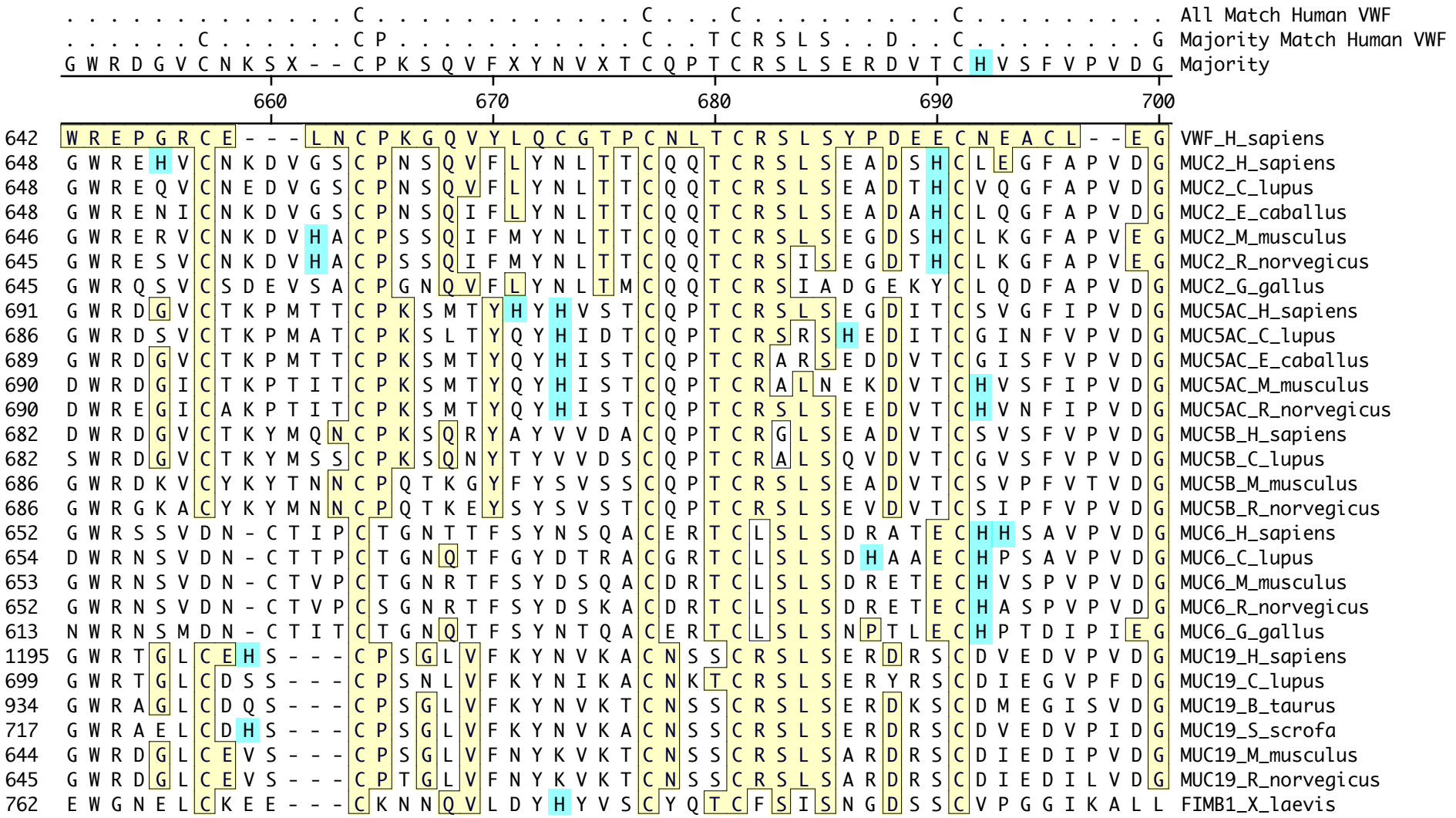
640 F S Q C H A T V N P S T F F S N C M F D T C N C E K S E D C L C A A L S S Y V R A C A A K G V L L S MUC5AC_R_norvegicus
632 F S R C H S I I N P K P F H S N C M F D T C N C E R S E D C L C A A L S S Y V H A C A A K G V Q L S MUC5B_H_sapiens
632 F S R C H S I L N P A P F H S N C M F D T C N C E K S E D C L C A A L S S Y V H A C A T K G V L L S MUC5B_C_lupus
636 F S A C H A T V S P V P F Y S N C L F D T C N C E N S E D C M C A A L S S Y V F A C A A K G V L L S MUC5B_M_musculus
636 F S A C H A T V S P V P F Y S N C L F D T C N C E N S E D C M C A A L S S Y V R A C A A K G V L L S MUC5B_R_norvegicus
602 F E R C H A T V N P A P F Y K R C V Y Q A C N Y E E T F P H I C A A L G D Y V H A C S L R G V L L W MUC6_H_sapiens
604 F E K C H A M V N P R P F Y K R C V Y Q A C N Y E K T I L H V C A A L S D Y A R V C A T R G I L L R MUC6_C_lupus
603 F E K C H S V V N P Q P F Y K R C V Y Q A C N Y E E T F P H I C S A L G A Y A H A C S A R G I L L W MUC6_M_musculus
602 F E K C H N V V N P Q P F Y K R C V Y Q A C N Y E E T F P H I C S A L G A Y A H A C S S R G V L L W MUC6_R_norvegicus
563 F E T C H A V V N P T P F Y K R C V Y Q A C N Y E E T F P Y I C S A L G S Y A R T C S S M G L I L E MUC6_G_gallus
1145 L A S C H P I V N P K P Y H E E C K K Y T C T C E N S Q D C L C T I L G N Y V K A C A E K E T Y I V MUC19_H_sapiens
649 F A S C H P I V N V K P Y Y E E C K R Y T C T C K N S K D C L C T I F G N Y V K A C A E K E V Y M V MUC19_C_lupus
884 F A S C H S I V D P K P Y H E E C K K Y T C T C E N S Q D C L C T I L G N Y V K A C A E K E T S M V MUC19_B_taurus
667 F A S C H P I V N P K P Y H E E C K K Y T C A C E N S K D C L C T I L G N Y V K A C A E K E T Y I V MUC19_S_scrofa
594 F A A C H Q T V N P K F Y H E E C K K Y T C S C E N G Q D C L C T V L G N Y V K A C A E K E I Y L V MUC19_M_musculus
595 F A A C H Q T V D P K F Y H E E C K R Y T C S C E N S Q D C L C T V L G N Y V K A C A E K E T Y L V MUC19_R_norvegicus
712 F A K C H S T V L Y R S F Y E R C V H L T C I S Q D M T V S M C T E L R N Y A M A C A E Q G I Y I H FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
660
670
680
690
700
642 VWF_H_sapiens
648 MUC2_H_sapiens
648 MUC2_C_lupus
648 MUC2_E_caballus
646 MUC2_M_musculus
645 MUC2_R_norvegicus
645 MUC2_G_gallus
691 MUC5AC_H_sapiens
686 MUC5AC_C_lupus
689 MUC5AC_E_caballus
690 MUC5AC_M_musculus
690 MUC5AC_R_norvegicus
682 MUC5B_H_sapiens
682 MUC5B_C_lupus
686 MUC5B_M_musculus
686 MUC5B_R_norvegicus
652 MUC6_H_sapiens
654 MUC6_C_lupus
653 MUC6_M_musculus
652 MUC6_R_norvegicus
613 MUC6_G_gallus
1195 MUC19_H_sapiens
699 MUC19_C_lupus
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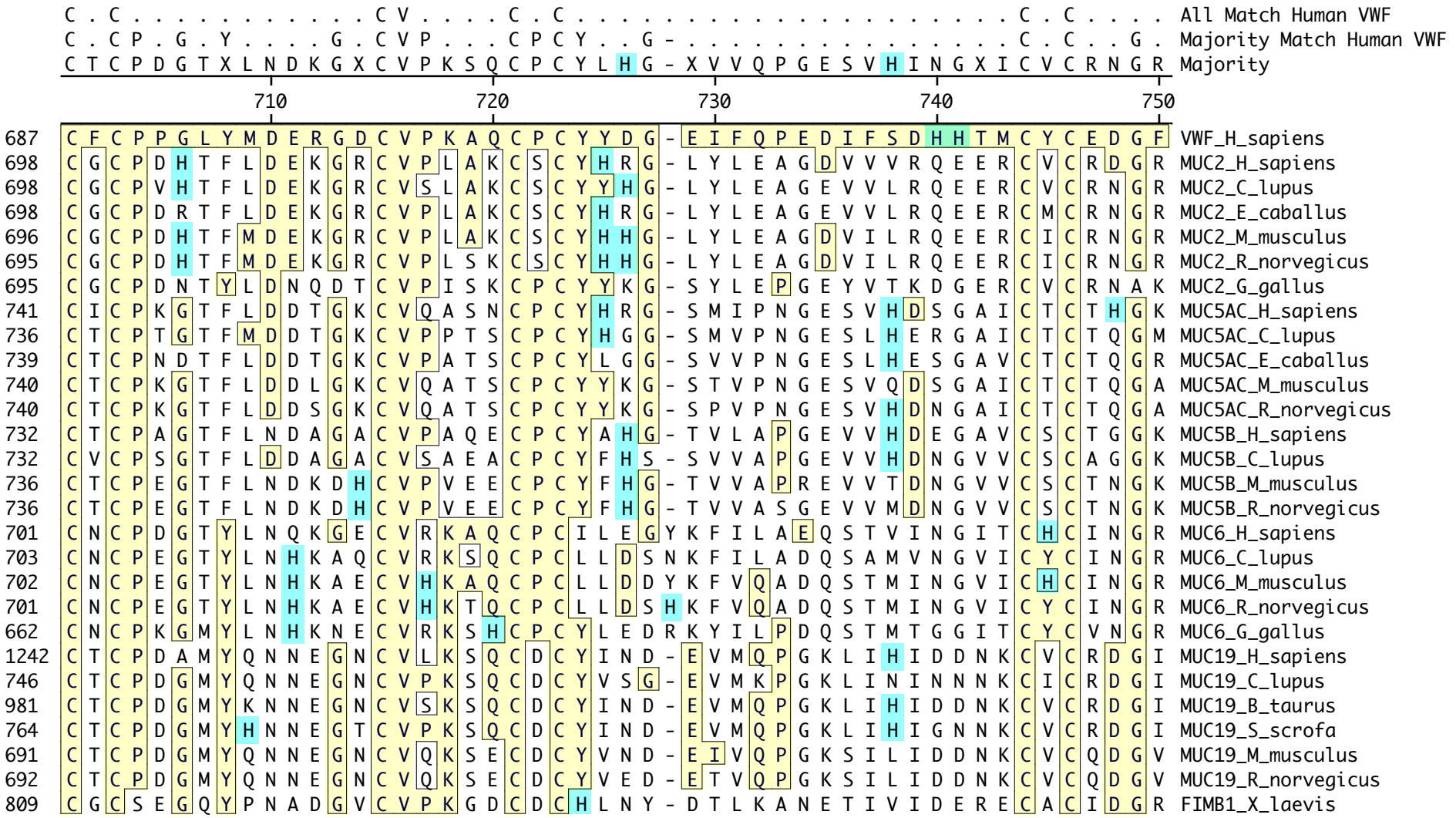
762 FIMB1_X_laevis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C . C P . G . Y . . . . G . C V P . . . C P C Y . . G - . . . . . C . C . . G . Majority Match Human VWF
C T C P D G T X L N D K G X C V P K S Q C P C Y L H G - X V V Q P G E S V H I N G X I C V C R N G R Majority
710
720
730
740
750
687 C F C P P G L Y M D E R G D C V P K A Q C P C Y Y D G - E I F Q P E D I F S D H H T M C Y C E D G F VWF_H_sapiens
698 C G C P D H T F L D E K G R C V P L A K C S C Y H R G - L Y L E A G D V V V R Q E E R C V C R D G R MUC2_H_sapiens
698 C G C P V H T F L D E K G R C V S L A K C S C Y Y H G - L Y L E A G E V V L R Q E E R C V C R N G R MUC2_C_lupus
698 C G C P D R T F L D E K G R C V P L A K C S C Y H R G - L Y L E A G E V V L R Q E E R C M C R N G R MUC2_E_caballus
696 C G C P D H T F M D E K G R C V P L A K C S C Y H H G - L Y L E A G D V I L R Q E E R C I C R N G R MUC2_M_musculus
695 C G C P D H T F M D E K G R C V P L S K C S C Y H H G - L Y L E A G D V I L R Q E E R C I C R N G R MUC2_R_norvegicus
695 C G C P D N T Y L D N Q D T C V P I S K C P C Y Y K G - S Y L E P G E Y V T K D G E R C V C R N A K MUC2_G_gallus
741 C I C P K G T F L D D T G K C V Q A S N C P C Y H R G - S M I P N G E S V H D S G A I C T C T H G K MUC5AC_H_sapiens
736 C T C P T G T F M D D T G K C V P P T S C P C Y H G G - S M V P N G E S L H E R G A I C T C T Q G M MUC5AC_C_lupus
739 C T C P N D T F L D D T G K C V P A T S C P C Y L G G - S V V P N G E S L H E S G A V C T C T Q G R MUC5AC_E_caballus
740 C T C P K G T F L D D L G K C V Q A T S C P C Y Y K G - S T V P N G E S V Q D S G A I C T C T Q G A MUC5AC_M_musculus
740 C T C P K G T F L D D S G K C V Q A T S C P C Y Y K G - S P V P N G E S V H D N G A I C T C T Q G A MUC5AC_R_norvegicus
732 C T C P A G T F L N D A G A C V P A Q E C P C Y A H G - T V L A P G E V V H D E G A V C S C T G G K MUC5B_H_sapiens
732 C V C P S G T F L D D A G A C V S A E A C P C Y F H S - S V V A P G E V V H D N G V V C S C A G G K MUC5B_C_lupus
736 C T C P E G T F L N D K D H C V P V E E C P C Y F H G - T V V A P R E V V T D N G V V C S C T N G K MUC5B_M_musculus
736 C T C P E G T F L N D K D H C V P V E E C P C Y F H G - T V V A S G E V V M D N G V V C S C T N G K MUC5B_R_norvegicus
701 C N C P D G T Y L N Q K G E C V R K A Q C P C I L E G Y K F I L A E Q S T V I N G I T C H C I N G R MUC6_H_sapiens
703 C N C P E G T Y L N H K A Q C V R K S Q C P C L L D S N K F I L A D Q S A M V N G V I C Y C I N G R MUC6_C_lupus
702 C N C P E G T Y L N H K A E C V H K A Q C P C L L D D Y K F V Q A D Q S T M I N G V I C H C I N G R MUC6_M_musculus
701 C N C P E G T Y L N H K A E C V H K T Q C P C L L D S H K F V Q A D Q S T M I N G V I C Y C I N G R MUC6_R_norvegicus
662 C N C P K G M Y L N H K N E C V R K S H C P C Y L E D R K Y I L P D Q S T M T G G I T C Y C V N G R MUC6_G_gallus
1242 C T C P D A M Y Q N N E G N C V L K S Q C D C Y I N D - E V M Q P G K L I H I D D N K C V C R D G I MUC19_H_sapiens
746 C T C P D G M Y Q N N E G N C V P K S Q C D C Y V S G - E V M K P G K L I N I N N N K C I C R D G I MUC19_C_lupus
981 C T C P D G M Y K N N E G N C V S K S Q C D C Y I N D - E V M Q P G K L I H I D D N K C V C R D G I MUC19_B_taurus
764 C T C P D G M Y H N N E G T C V P K S Q C D C Y I N D - E V M Q P G K L I H I G N N K C V C R D G I MUC19_S_scrofa
691 C T C P D G M Y Q N N E G N C V Q K S E C D C Y V N D - E I V Q P G K S I L I D D N K C V C Q D G V MUC19_M_musculus
692 C T C P D G M Y Q N N E G N C V Q K S E C D C Y V E D - E T V Q P G K S I L I D D N K C V C Q D G V MUC19_R_norvegicus
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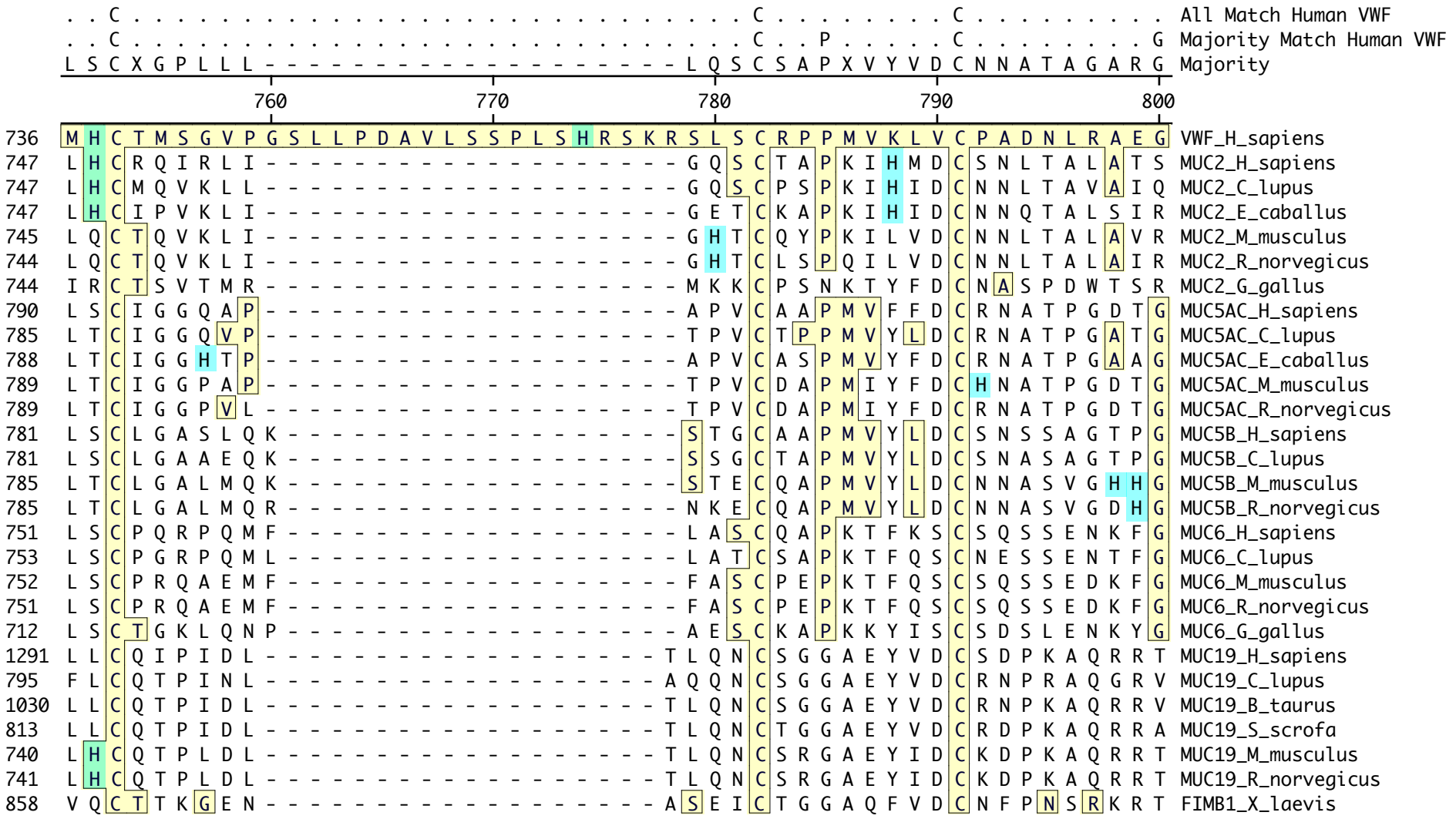
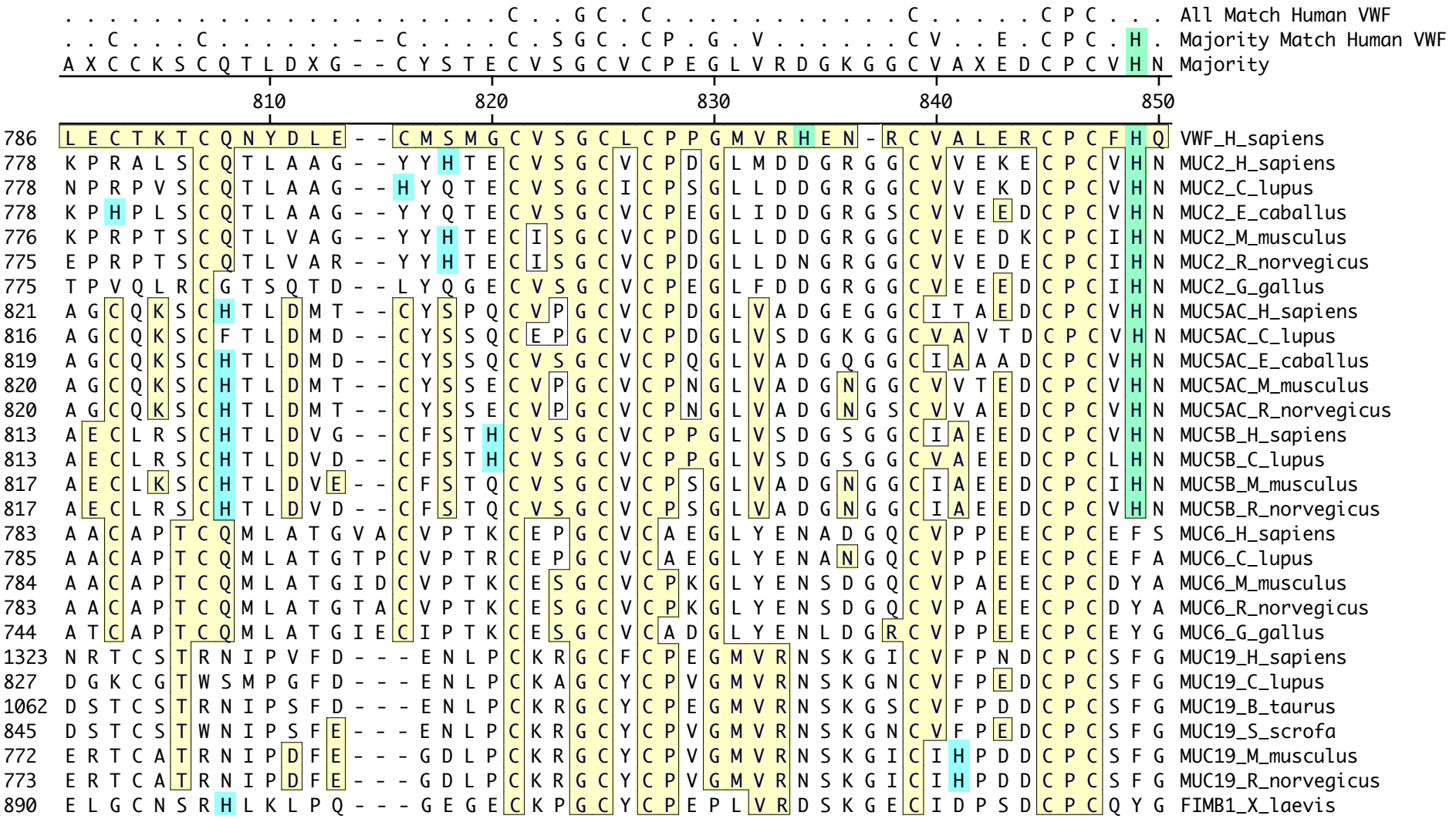

. . C . . . . . C . . . . . C . . . . . All Match Human VWF
. . C . . . . . C . . P . . . . C . . . . . G Majority Match Human VWF
L S C X G P L L L - - - - - - - - - - - - - - - - - - L Q S C S A P X V Y V D C N N A T A G A R G Majority
760
770
780
790
800
736 M H C T M S G V P G S L L P D A V L S S P L S H R S K R S L S C R P P M V K L V C P A D N L R A E G VWF_H_sapiens
747 L H C R Q I R L I - - - - - - - - - - - - - - - - - - G Q S C T A P K I H M D C S N L T A L A T S MUC2_H_sapiens
747 L H C M Q V K L L - - - - - - - - - - - - - - - - - - G Q S C P S P K I H I D C N N L T A V A I Q MUC2_C_lupus
747 L H C I P V K L I - - - - - - - - - - - - - - - - - - G E T C K A P K I H I D C N N Q T A L S I R MUC2_E_caballus
745 L Q C T Q V K L I - - - - - - - - - - - - - - - - - - G H T C Q Y P K I L V D C N N L T A L A V R MUC2_M_musculus
744 L Q C T Q V K L I - - - - - - - - - - - - - - - - - - G H T C L S P Q I L V D C N N L T A L A I R MUC2_R_norvegicus
744 I R C T S V T M R - - - - - - - - - - - - - - - - - - M K K C P S N K T Y F D C N A S P D W T S R MUC2_G_gallus
790 L S C I G G Q A P - - - - - - - - - - - - - - - - - - A P V C A A P M V F F D C R N A T P G D T G MUC5AC_H_sapiens
785 L T C I G G Q V P - - - - - - - - - - - - - - - - - - T P V C T P P M V Y L D C R N A T P G A T G MUC5AC_C_lupus
788 L T C I G G H T P - - - - - - - - - - - - - - - - - - A P V C A S P M V Y F D C R N A T P G A A G MUC5AC_E_caballus
789 L T C I G G P A P - - - - - - - - - - - - - - - - - - T P V C D A P M I Y F D C H N A T P G D T G MUC5AC_M_musculus
789 L T C I G G P V L - - - - - - - - - - - - - - - - - - T P V C D A P M I Y F D C R N A T P G D T G MUC5AC_R_norvegicus
781 L S C L G A S L Q K - - - - - - - - - - - - - - - - - S T G C A A P M V Y L D C S N S S A G T P G MUC5B_H_sapiens
781 L S C L G A A E Q K - - - - - - - - - - - - - - - - - S S G C T A P M V Y L D C S N A S A G T P G MUC5B_C_lupus
785 L T C L G A L M Q K - - - - - - - - - - - - - - - - - S T E C Q A P M V Y L D C N N A S V G H H G MUC5B_M_musculus
785 L T C L G A L M Q R - - - - - - - - - - - - - - - - - N K E C Q A P M V Y L D C N N A S V G D H G MUC5B_R_norvegicus
751 L S C P Q R P Q M F - - - - - - - - - - - - - - - - - L A S C Q A P K T F K S C S Q S S E N K F G MUC6_H_sapiens
753 L S C P G R P Q M L - - - - - - - - - - - - - - - - - L A T C S A P K T F Q S C N E S S E N T F G MUC6_C_lupus
752 L S C P R Q A E M F - - - - - - - - - - - - - - - - - F A S C P E P K T F Q S C S Q S S E D K F G MUC6_M_musculus
751 L S C P R Q A E M F - - - - - - - - - - - - - - - - - F A S C P E P K T F Q S C S Q S S E D K F G MUC6_R_norvegicus
712 L S C T G K L Q N P - - - - - - - - - - - - - - - - - A E S C K A P K K Y I S C S D S L E N K Y G MUC6_G_gallus
1291 L L C Q I P I D L - - - - - - - - - - - - - - - - - T L Q N C S G G A E Y V D C S D P K A Q R R T MUC19_H_sapiens
795 F L C Q T P I N L - - - - - - - - - - - - - - - - - A Q Q N C S G G A E Y V D C R N P R A Q G R V MUC19_C_lupus
1030 L L C Q T P I D L - - - - - - - - - - - - - - - - - T L Q N C S G G A E Y V D C R N P K A Q R R V MUC19_B_taurus
813 L L C Q T P I D L - - - - - - - - - - - - - - - - - T L Q N C T G G A E Y V D C R D P K A Q R R A MUC19_S_scrofa
740 L H C Q T P L D L - - - - - - - - - - - - - - - - - T L Q N C S R G A E Y I D C K D P K A Q R R T MUC19_M_musculus
741 L H C Q T P L D L - - - - - - - - - - - - - - - - - T L Q N C S R G A E Y I D C K D P K A Q R R T MUC19_R_norvegicus
858 V Q C T T K G E N - - - - - - - - - - - - - - - - - A S E I C T G G A Q F V D C N F P N S R K R T FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
810
820
830
840
850
786 VWF_H_sapiens
778 MUC2_H_sapiens
778 MUC2_C_lupus
778 MUC2_E_caballus
776 MUC2_M_musculus
775 MUC2_R_norvegicus
775 MUC2_G_gallus
821 MUC5AC_H_sapiens
816 MUC5AC_C_lupus
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817 MUC5B_R_norvegicus
783 MUC6_H_sapiens
785 MUC6_C_lupus
784 MUC6_M_musculus
783 MUC6_R_norvegicus
744 MUC6_G_gallus
1323 MUC19_H_sapiens
827 MUC19_C_lupus
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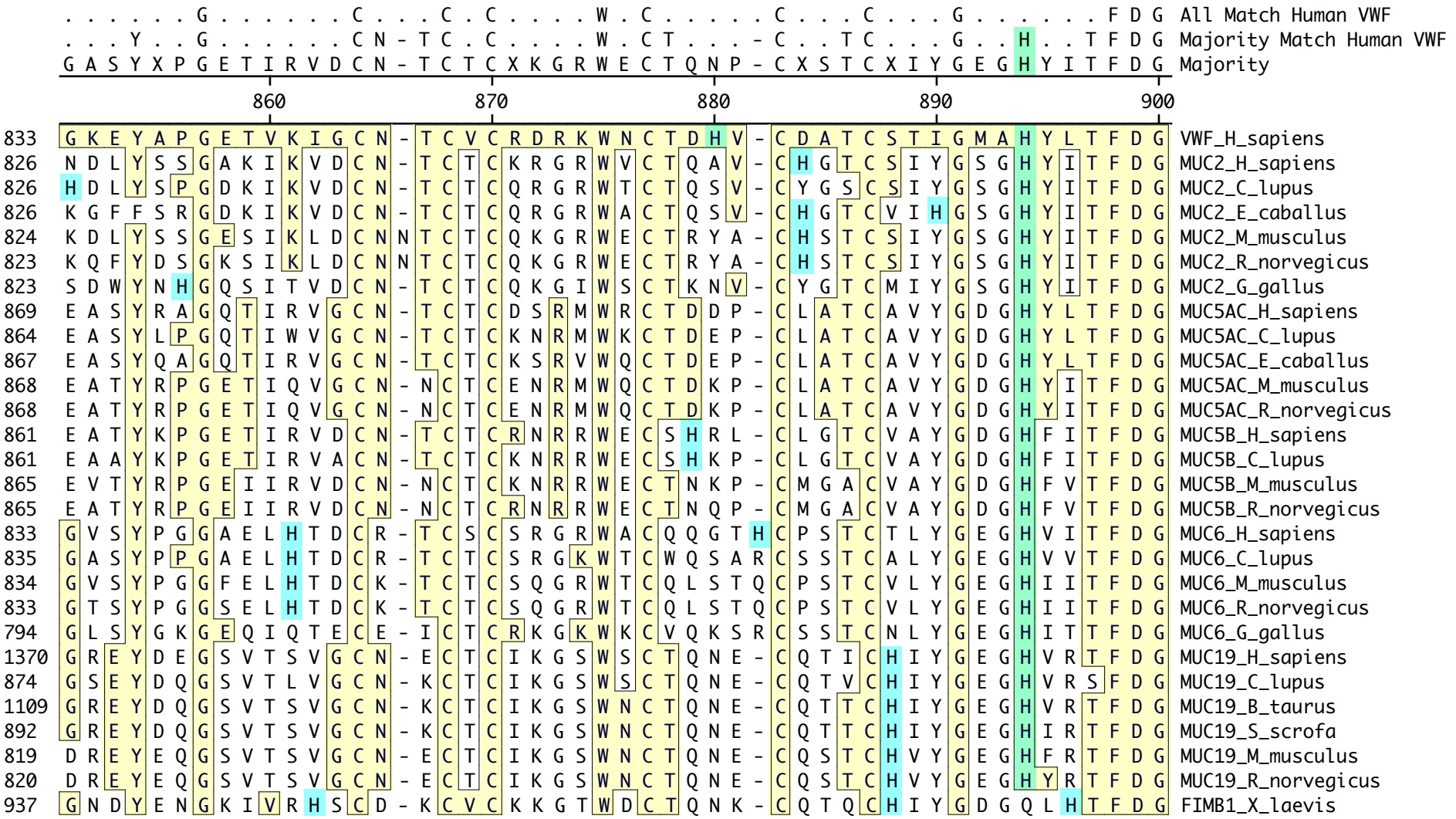
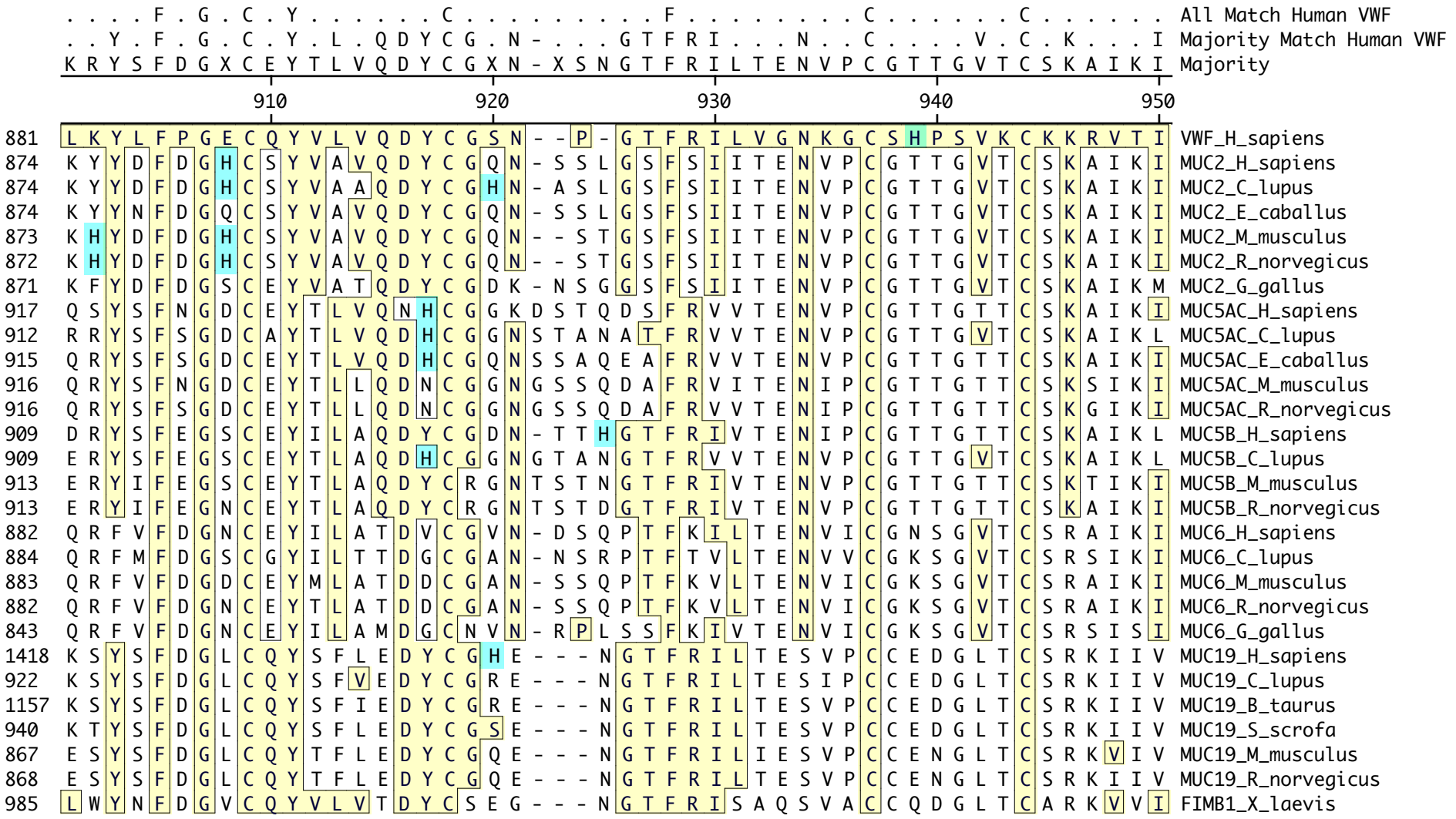
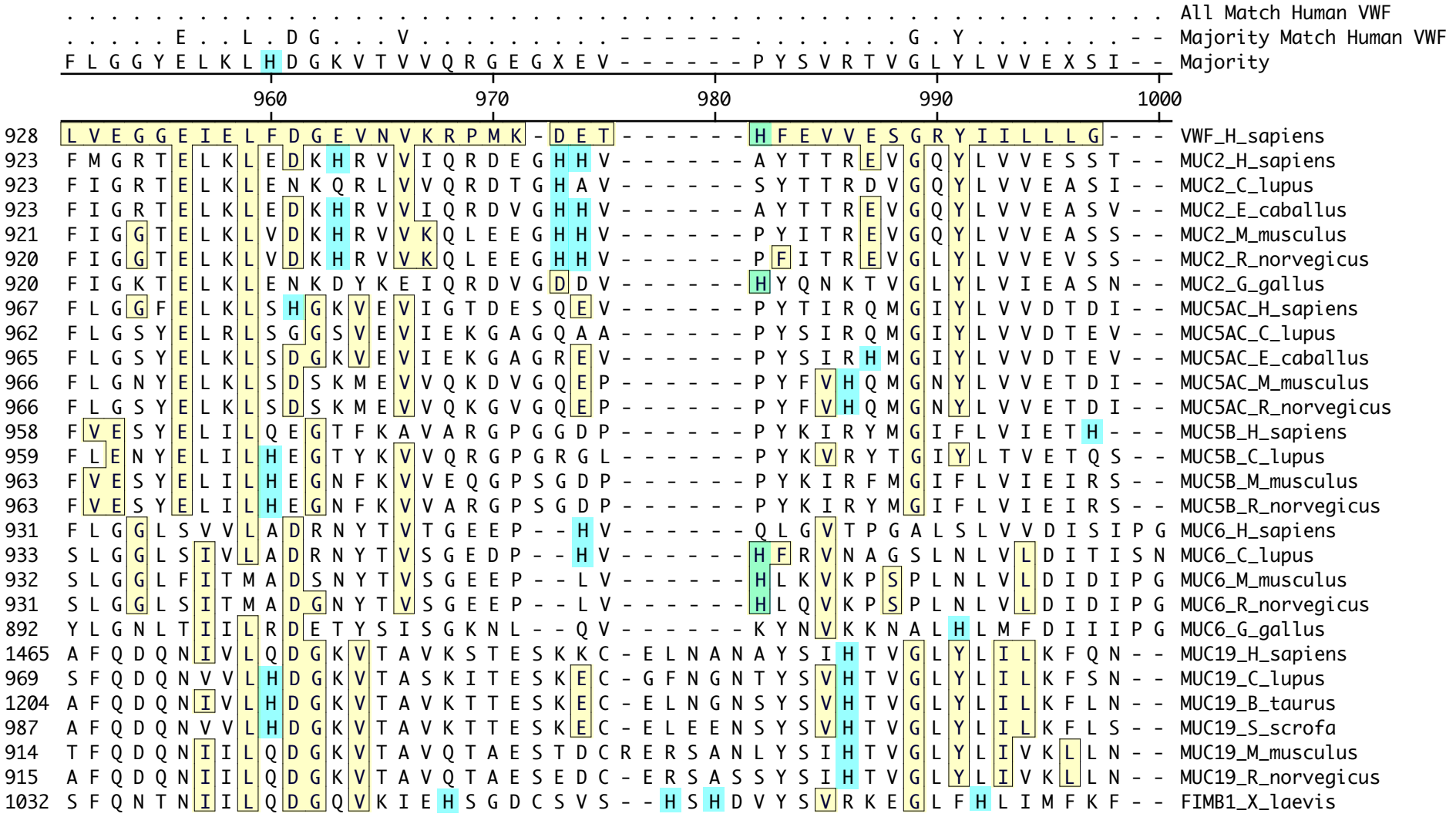

. . . . . G . . . . . C . . . C . C . . . . W . C . . . . . C . . . C . . . G . . . . . F D G All Match Human VWF
. . . Y . . G . . . . . C N - T C . C . . . . W . C T . . . - C . . T C . . . G . . H . . T F D G Majority Match Human VWF
G A S Y X P G E T I R V D C N - T C T C X K G R W E C T Q N P - C X S T C X I Y G E G H Y I T F D G Majority
860
870
880
890
900
833 G K E Y A P G E T V K I G C N - T C V C R D R K W N C T D H V - C D A T C S T I G M A H Y L T F D G VWF_H_sapiens
826 N D L Y S S G A K I K V D C N - T C T C K R G R W V C T Q A V - C H G T C S I Y G S G H Y I T F D G MUC2_H_sapiens
826 H D L Y S P G D K I K V D C N - T C T C Q R G R W T C T Q S V - C Y G S C S I Y G S G H Y I T F D G MUC2_C_lupus
826 K G F F S R G D K I K V D C N - T C T C Q R G R W A C T Q S V - C H G T C V I H G S G H Y I T F D G MUC2_E_caballus
824 K D L Y S S G E S I K L D C N N T C T C Q K G R W E C T R Y A - C H S T C S I Y G S G H Y I T F D G MUC2_M_musculus
823 K Q F Y D S G K S I K L D C N N T C T C Q K G R W E C T R Y A - C H S T C S I Y G S G H Y I T F D G MUC2_R_norvegicus
823 S D W Y N H G Q S I T V D C N - T C T C Q K G I W S C T K N V - C Y G T C M I Y G S G H Y I T F D G MUC2_G_gallus
869 E A S Y R A G Q T I R V G C N - T C T C D S R M W R C T D D P - C L A T C A V Y G D G H Y L T F D G MUC5AC_H_sapiens
864 E A S Y L P G Q T I W V G C N - T C T C K N R M W K C T D E P - C L A T C A V Y G D G H Y L T F D G MUC5AC_C_lupus
867 E A S Y Q A G Q T I R V G C N - T C T C K S R V W Q C T D E P - C L A T C A V Y G D G H Y L T F D G MUC5AC_E_caballus
868 E A T Y R P G E T I Q V G C N - N C T C E N R M W Q C T D K P - C L A T C A V Y G D G H Y I T F D G MUC5AC_M_musculus
868 E A T Y R P G E T I Q V G C N - N C T C E N R M W Q C T D K P - C L A T C A V Y G D G H Y I T F D G MUC5AC_R_norvegicus
861 E A T Y K P G E T I R V D C N - T C T C R N R R W E C S H R L - C L G T C V A Y G D G H F I T F D G MUC5B_H_sapiens
861 E A A Y K P G E T I R V A C N - T C T C K N R R W E C S H K P - C L G T C V A Y G D G H F I T F D G MUC5B_C_lupus
865 E V T Y R P G E I I R V D C N - N C T C K N R R W E C T N K P - C M G A C V A Y G D G H F V T F D G MUC5B_M_musculus
865 E A T Y R P G E I I R V D C N - N C T C R N R R W E C T N Q P - C M G A C V A Y G D G H F V T F D G MUC5B_R_norvegicus
833 G V S Y P G G A E L H T D C R - T C S C S R G R W A C Q Q G T H C P S T C T L Y G E G H V I T F D G MUC6_H_sapiens
835 G A S Y P P G A E L H T D C R - T C T C S R G K W T C W Q S A R C S S T C A L Y G E G H V V T F D G MUC6_C_lupus
834 G V S Y P G G F E L H T D C K - T C T C S Q G R W T C Q L S T Q C P S T C V L Y G E G H I I T F D G MUC6_M_musculus
833 G T S Y P G G S E L H T D C K - T C T C S Q G R W T C Q L S T Q C P S T C V L Y G E G H I I T F D G MUC6_R_norvegicus
794 G L S Y G K G E Q I Q T E C E - I C T C R K G K W K C V Q K S R C S S T C N L Y G E G H I T T F D G MUC6_G_gallus
1370 G R E Y D E G S V T S V G C N - E C T C I K G S W S C T Q N E - C Q T I C H I Y G E G H V R T F D G MUC19_H_sapiens
874 G S E Y D Q G S V T L V G C N - K C T C I K G S W S C T Q N E - C Q T V C H I Y G E G H V R S F D G MUC19_C_lupus
1109 G R E Y D Q G S V T S V G C N - K C T C I K G S W N C T Q N E - C Q T T C H I Y G E G H V R T F D G MUC19_B_taurus
892 G R E Y D Q G S V T S V G C N - K C T C I K G S W N C T Q N E - C Q T T C H I Y G E G H I R T F D G MUC19_S_scrofa
819 D R E Y E Q G S V T S V G C N - E C T C I K G S W N C T Q N E - C Q S T C H V Y G E G H F R T F D G MUC19_M_musculus
820 D R E Y E Q G S V T S V G C N - E C T C I K G S W N C T Q N E - C Q S T C H V Y G E G H Y R T F D G MUC19_R_norvegicus
937 G N D Y E N G K I V R H S C D - K C V C K K G T W D C T Q N K - C Q T Q C H I Y G D G Q L H T F D G FIMB1_X_laevis


. . . . F . G . C . Y . . . . . C . . . . F . . . . C . . . . . C . . . . . All Match Human VWF
. . Y . F . G . C . Y . L . Q D Y C G . N - . . . G T F R I . . . N . . C . . . . V . C . K . . . I Majority Match Human VWF
K R Y S F D G X C E Y T L V Q D Y C G X N - X S N G T F R I L T E N V P C G T T G V T C S K A I K I Majority
910
920
930
940
950
881 L K Y L F P G E C Q Y V L V Q D Y C G S N - - P - G T F R I L V G N K G C S H P S V K C K K R V T I VWF_H_sapiens
874 K Y Y D F D G H C S Y V A V Q D Y C G Q N - S S L G S F S I I T E N V P C G T T G V T C S K A I K I MUC2_H_sapiens
874 K Y Y D F D G H C S Y V A A Q D Y C G H N - A S L G S F S I I T E N V P C G T T G V T C S K A I K I MUC2_C_lupus
874 K Y Y N F D G Q C S Y V A V Q D Y C G Q N - S S L G S F S I I T E N V P C G T T G V T C S K A I K I MUC2_E_caballus
873 K H Y D F D G H C S Y V A V Q D Y C G Q N - - S T G S F S I I T E N V P C G T T G V T C S K A I K I MUC2_M_musculus
872 K H Y D F D G H C S Y V A V Q D Y C G Q N - - S T G S F S I I T E N V P C G T T G V T C S K A I K I MUC2_R_norvegicus
871 K F Y D F D G S C E Y V A T Q D Y C G D K - N S G G S F S I I T E N V P C G T T G V T C S K A I K M MUC2_G_gallus
917 Q S Y S F N G D C E Y T L V Q N H C G G K D S T Q D S F R V V T E N V P C G T T G T T C S K A I K I MUC5AC_H_sapiens
912 R R Y S F S G D C A Y T L V Q D H C G G N S T A N A T F R V V T E N V P C G T T G V T C S K A I K L MUC5AC_C_lupus
915 Q R Y S F S G D C E Y T L V Q D H C G Q N S S A Q E A F R V V T E N V P C G T T G T T C S K A I K I MUC5AC_E_caballus
916 Q R Y S F N G D C E Y T L L Q D N C G G N G S S Q D A F R V I T E N I P C G T T G T T C S K S I K I MUC5AC_M_musculus
916 Q R Y S F S G D C E Y T L L Q D N C G G N G S S Q D A F R V V T E N I P C G T T G T T C S K G I K I MUC5AC_R_norvegicus
909 D R Y S F E G S C E Y I L A Q D Y C G D N - T T H G T F R I V T E N I P C G T T G T T C S K A I K L MUC5B_H_sapiens
909 E R Y S F E G S C E Y T L A Q D H C G G N G T A N G T F R V V T E N V P C G T T G V T C S K A I K L MUC5B_C_lupus
913 E R Y I F E G S C E Y T L A Q D Y C R G N T S T N G T F R I V T E N V P C G T T G T T C S K T I K I MUC5B_M_musculus
913 E R Y I F E G N C E Y T L A Q D Y C R G N T S T D G T F R I V T E N V P C G T T G T T C S K A I K I MUC5B_R_norvegicus
882 Q R F V F D G N C E Y I L A T D V C G V N - D S Q P T F K I L T E N V I C G N S G V T C S R A I K I MUC6_H_sapiens
884 Q R F M F D G S C G Y I L T T D G C G A N - N S R P T F T V L T E N V V C G K S G V T C S R S I K I MUC6_C_lupus
883 Q R F V F D G D C E Y M L A T D D C G A N - S S Q P T F K V L T E N V I C G K S G V T C S R A I K I MUC6_M_musculus
882 Q R F V F D G N C E Y T L A T D D C G A N - S S Q P T F K V L T E N V I C G K S G V T C S R A I K I MUC6_R_norvegicus
843 Q R F V F D G N C E Y I L A M D G C N V N - R P L S S F K I V T E N V I C G K S G V T C S R S I S I MUC6_G_gallus
1418 K S Y S F D G L C Q Y S F L E D Y C G H E - - - N G T F R I L T E S V P C C E D G L T C S R K I I V MUC19_H_sapiens
922 K S Y S F D G L C Q Y S F V E D Y C G R E - - - N G T F R I L T E S I P C C E D G L T C S R K I I V MUC19_C_lupus
1157 K S Y S F D G L C Q Y S F I E D Y C G R E - - - N G T F R I L T E S V P C C E D G L T C S R K I I V MUC19_B_taurus
940 K T Y S F D G L C Q Y S F L E D Y C G S E - - - N G T F R I L T E S V P C C E D G L T C S R K I I V MUC19_S_scrofa
867 E S Y S F D G L C Q Y T F L E D Y C G Q E - - - N G T F R I L I E S V P C C E N G L T C S R K V I V MUC19_M_musculus
868 E S Y S F D G L C Q Y T F L E D Y C G Q E - - - N G T F R I L T E S V P C C E N G L T C S R K I I V MUC19_R_norvegicus
985 L W Y N F D G V C Q Y V L V T D Y C S E G - - - N G T F R I S A Q S V A C C Q D G L T C A R K V V I FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
960
970
980
990
1000
928 VWF_H_sapiens
923 MUC2_H_sapiens
923 MUC2_C_lupus
923 MUC2_E_caballus
921 MUC2_M_musculus
920 MUC2_R_norvegicus
920 MUC2_G_gallus
967 MUC5AC_H_sapiens
962 MUC5AC_C_lupus
965 MUC5AC_E_caballus
966 MUC5AC_M_musculus
966 MUC5AC_R_norvegicus
958 MUC5B_H_sapiens
959 MUC5B_C_lupus
963 MUC5B_M_musculus
963 MUC5B_R_norvegicus
931 MUC6_H_sapiens
933 MUC6_C_lupus
932 MUC6_M_musculus
931 MUC6_R_norvegicus
892 MUC6_G_gallus
1465 MUC19_H_sapiens
969 MUC19_C_lupus
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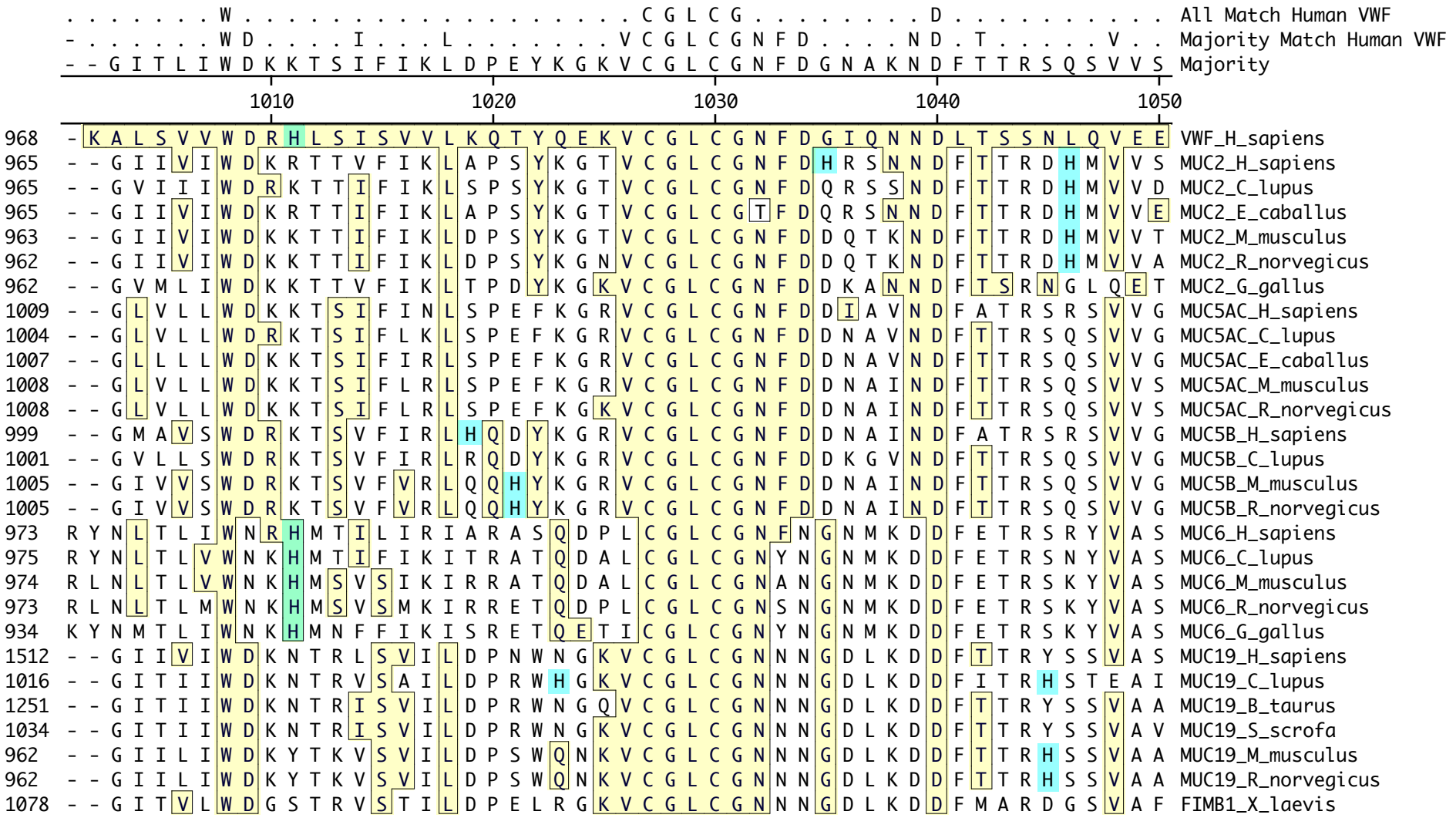
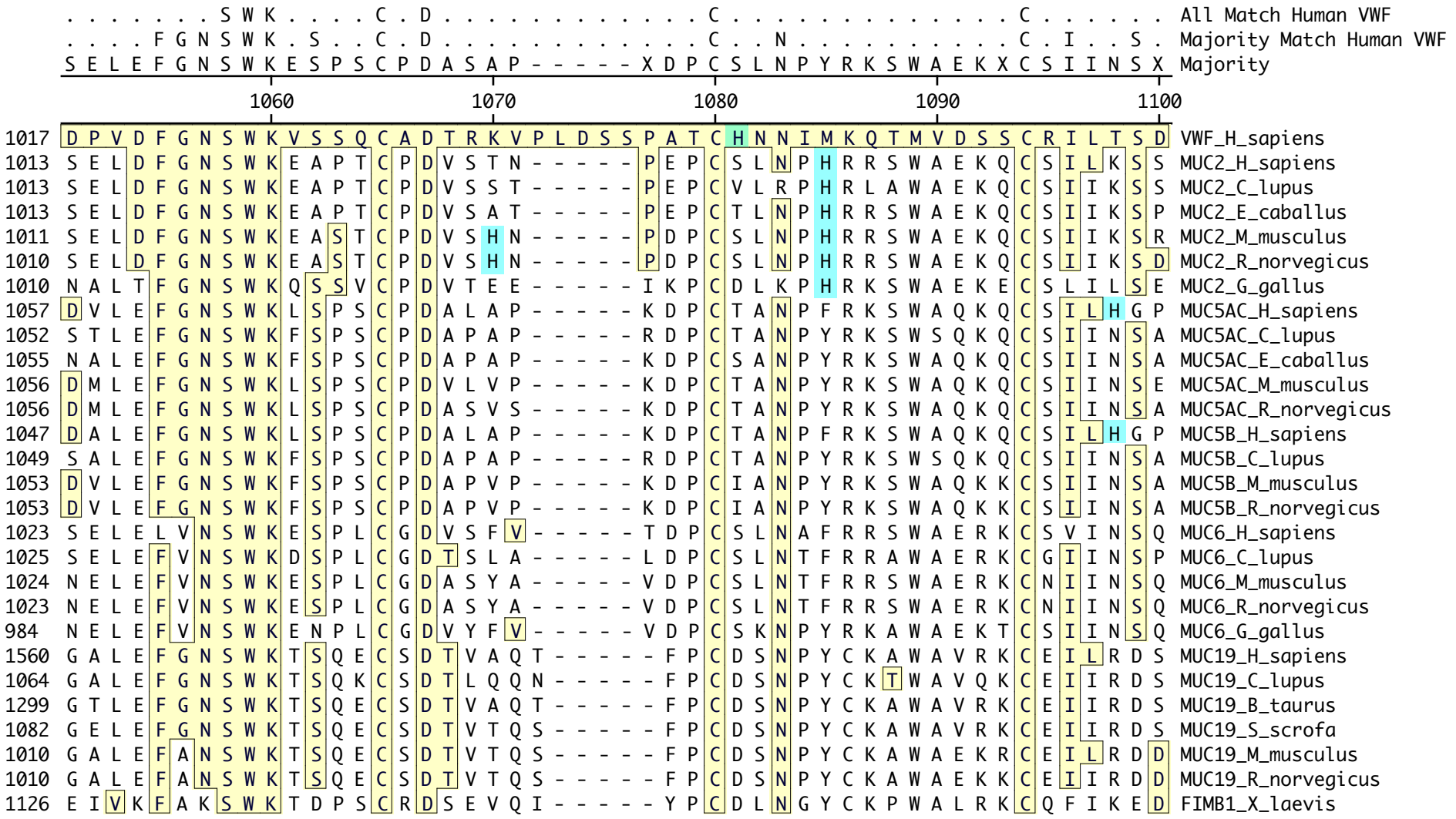
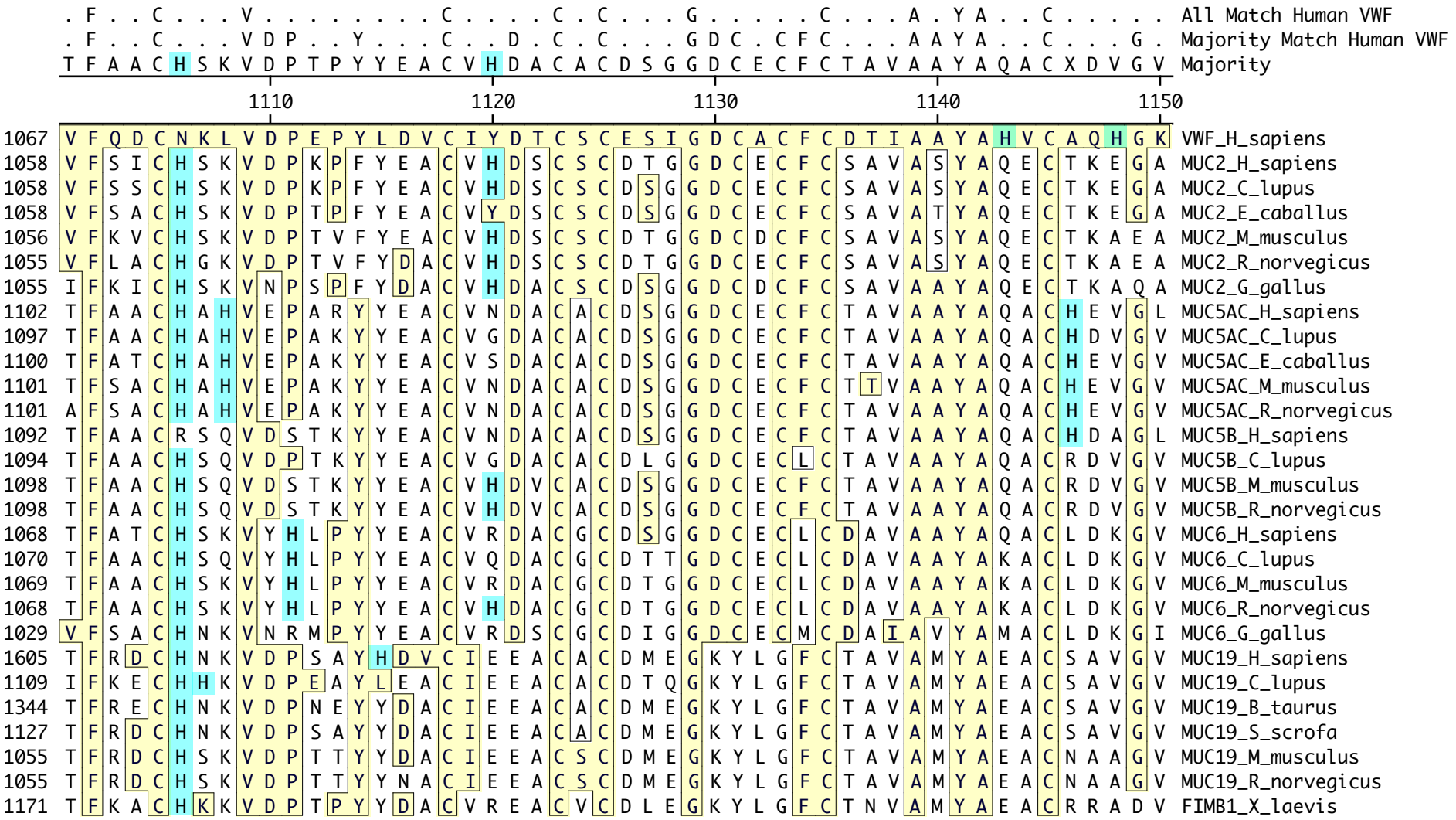
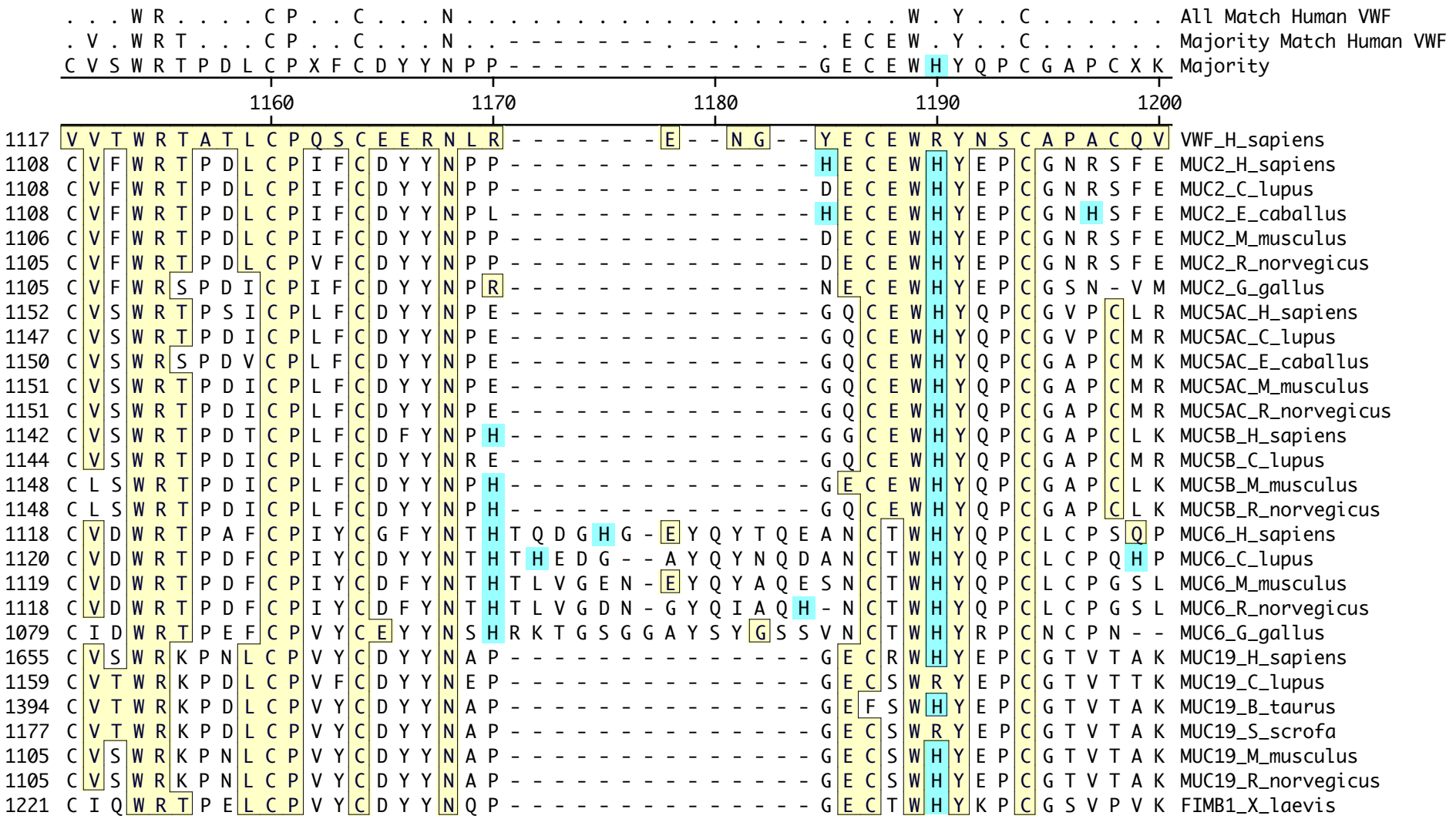
1032 FIMB1_X_laevis


. . . . . W . . . . . C G L C G . . . . . D . . . . . All Match Human VWF
- . . . . . W D . . . . I . . . L . . . . . V C G L C G N F D . . . . N D . T . . . . . V . . Majority Match Human VWF
- - G I T L I W D K K T S I F I K L D P E Y K G K V C G L C G N F D G N A K N D F T T R S Q S V V S Majority
1010
1020
1030
1040
1050
968 - K A L S V V W D R H L S I S V V L K Q T Y Q E K V C G L C G N F D G I Q N N D L T S S N L Q V E E VWF_H_sapiens
965 - - G I I V I W D K R T T V F I K L A P S Y K G T V C G L C G N F D H R S N N D F T T R D H M V V S MUC2_H_sapiens
965 - - G V I I I W D R K T T I F I K L S P S Y K G T V C G L C G N F D Q R S S N D F T T R D H M V V D MUC2_C_lupus
965 - - G I I V I W D K R T T I F I K L A P S Y K G T V C G L C G T F D Q R S N N D F T T R D H M V V E MUC2_E_caballus
963 - - G I I V I W D K K T T I F I K L D P S Y K G T V C G L C G N F D D Q T K N D F T T R D H M V V T MUC2_M_musculus
962 - - G I I V I W D K K T T I F I K L D P S Y K G N V C G L C G N F D D Q T K N D F T T R D H M V V A MUC2_R_norvegicus
962 - - G V M L I W D K K T T V F I K L T P D Y K G K V C G L C G N F D D K A N N D F T S R N G L Q E T MUC2_G_gallus
1009 - - G L V L L W D K K T S I F I N L S P E F K G R V C G L C G N F D D I A V N D F A T R S R S V V G MUC5AC_H_sapiens
1004 - - G L V L L W D R K T S I F L K L S P E F K G R V C G L C G N F D D N A V N D F T T R S Q S V V G MUC5AC_C_lupus
1007 - - G L L L L W D K K T S I F I R L S P E F K G R V C G L C G N F D D N A V N D F T T R S Q S V V G MUC5AC_E_caballus
1008 - - G L V L L W D K K T S I F L R L S P E F K G R V C G L C G N F D D N A I N D F T T R S Q S V V S MUC5AC_M_musculus
1008 - - G L V L L W D K K T S I F L R L S P E F K G K V C G L C G N F D D N A I N D F T T R S Q S V V S MUC5AC_R_norvegicus
999 - - G M A V S W D R K T S V F I R L H Q D Y K G R V C G L C G N F D D N A I N D F A T R S R S V V G MUC5B_H_sapiens
1001 - - G V L L S W D R K T S V F I R L R Q D Y K G R V C G L C G N F D D K G V N D F T T R S Q S V V G MUC5B_C_lupus
1005 - - G I V V S W D R K T S V F V R L Q Q H Y K G R V C G L C G N F D D N A I N D F T T R S Q S V V G MUC5B_M_musculus
1005 - - G I V V S W D R K T S V F V R L Q Q H Y K G R V C G L C G N F D D N A I N D F T T R S Q S V V G MUC5B_R_norvegicus
973 R Y N L T L I W N R H M T I L I R I A R A S Q D P L C G L C G N F N G N M K D D F E T R S R Y V A S MUC6_H_sapiens
975 R Y N L T L V W N K H M T I F I K I T R A T Q D A L C G L C G N Y N G N M K D D F E T R S N Y V A S MUC6_C_lupus
974 R L N L T L V W N K H M S V S I K I R R A T Q D A L C G L C G N A N G N M K D D F E T R S K Y V A S MUC6_M_musculus
973 R L N L T L M W N K H M S V S M K I R R E T Q D P L C G L C G N S N G N M K D D F E T R S K Y V A S MUC6_R_norvegicus
934 K Y N M T L I W N K H M N F F I K I S R E T Q E T I C G L C G N Y N G N M K D D F E T R S K Y V A S MUC6_G_gallus
1512 - - G I I V I W D K N T R L S V I L D P N W N G K V C G L C G N N N G D L K D D F T T R Y S S V A S MUC19_H_sapiens
1016 - - G I T I I W D K N T R V S A I L D P R W H G K V C G L C G N N N G D L K D D F I T R H S T E A I MUC19_C_lupus
1251 - - G I T I I W D K N T R I S V I L D P R W N G Q V C G L C G N N N G D L K D D F T T R Y S S V A A MUC19_B_taurus
1034 - - G I T I I W D K N T R I S V I L D P R W N G K V C G L C G N N N G D L K D D F T T R Y S S V A V MUC19_S_scrofa
962 - - G I I L I W D K Y T K V S V I L D P S W Q N K V C G L C G N N N G D L K D D F T T R H S S V A A MUC19_M_musculus
962 - - G I I L I W D K Y T K V S V I L D P S W Q N K V C G L C G N N N G D L K D D F T T R H S S V A A MUC19_R_norvegicus
1078 - - G I T V L W D G S T R V S T I L D P E L R G K V C G L C G N N N G D L K D D F M A R D G S V A F FIMB1_X_laevis


. . . . . S W K . . . . C . D . . . . C . . . . C . . . . . . All Match Human VWF
. . . . F G N S W K . S . . C . D . . . . C . . N . . . . C . I . . S . Majority Match Human VWF
S E L E F G N S W K E S P S C P D A S A P - - - - - X D P C S L N P Y R K S W A E K X C S I I N S X Majority
1060
1070
1080
1090
1100
1017 D P V D F G N S W K V S S Q C A D T R K V P L D S S P A T C H N N I M K Q T M V D S S C R I L T S D VWF_H_sapiens
1013 S E L D F G N S W K E A P T C P D V S T N - - - - - P E P C S L N P H R R S W A E K Q C S I L K S S MUC2_H_sapiens
1013 S E L D F G N S W K E A P T C P D V S S T - - - - - P E P C V L R P H R L A W A E K Q C S I I K S S MUC2_C_lupus
1013 S E L D F G N S W K E A P T C P D V S A T - - - - - P E P C T L N P H R R S W A E K Q C S I I K S P MUC2_E_caballus
1011 S E L D F G N S W K E A S T C P D V S H N - - - - - P D P C S L N P H R R S W A E K Q C S I I K S R MUC2_M_musculus
1010 S E L D F G N S W K E A S T C P D V S H N - - - - - P D P C S L N P H R R S W A E K Q C S I I K S D MUC2_R_norvegicus
1010 N A L T F G N S W K Q S S V C P D V T E E - - - - - I K P C D L K P H R K S W A E K E C S L I L S E MUC2_G_gallus
1057 D V L E F G N S W K L S P S C P D A L A P - - - - - K D P C T A N P F R K S W A Q K Q C S I L H G P MUC5AC_H_sapiens
1052 S T L E F G N S W K F S P S C P D A P A P - - - - - R D P C T A N P Y R K S W S Q K Q C S I I N S A MUC5AC_C_lupus
1055 N A L E F G N S W K F S P S C P D A P A P - - - - - K D P C S A N P Y R K S W A Q K Q C S I I N S A MUC5AC_E_caballus
1056 D M L E F G N S W K L S P S C P D V L V P - - - - - K D P C T A N P Y R K S W A Q K Q C S I I N S E MUC5AC_M_musculus
1056 D M L E F G N S W K L S P S C P D A S V S - - - - - K D P C T A N P Y R K S W A Q K Q C S I I N S A MUC5AC_R_norvegicus
1047 D A L E F G N S W K L S P S C P D A L A P - - - - - K D P C T A N P F R K S W A Q K Q C S I L H G P MUC5B_H_sapiens
1049 S A L E F G N S W K F S P S C P D A P A P - - - - - R D P C T A N P Y R K S W S Q K Q C S I I N S A MUC5B_C_lupus
1053 D V L E F G N S W K F S P S C P D A P V P - - - - - K D P C I A N P Y R K S W A Q K K C S I I N S A MUC5B_M_musculus
1053 D V L E F G N S W K F S P S C P D A P V P - - - - - K D P C I A N P Y R K S W A Q K K C S I I N S A MUC5B_R_norvegicus
1023 S E L E L V N S W K E S P L C G D V S F V - - - - - T D P C S L N A F R R S W A E R K C S V I N S Q MUC6_H_sapiens
1025 S E L E F V N S W K D S P L C G D T S L A - - - - - L D P C S L N T F R R A W A E R K C G I I N S P MUC6_C_lupus
1024 N E L E F V N S W K E S P L C G D A S Y A - - - - - V D P C S L N T F R R S W A E R K C N I I N S Q MUC6_M_musculus
1023 N E L E F V N S W K E S P L C G D A S Y A - - - - - V D P C S L N T F R R S W A E R K C N I I N S Q MUC6_R_norvegicus
984 N E L E F V N S W K E N P L C G D V Y F V - - - - - V D P C S K N P Y R K A W A E K T C S I I N S Q MUC6_G_gallus
1560 G A L E F G N S W K T S Q E C S D T V A Q T - - - - - F P C D S N P Y C K A W A V R K C E I L R D S MUC19_H_sapiens
1064 G A L E F G N S W K T S Q K C S D T L Q Q N - - - - - F P C D S N P Y C K T W A V Q K C E I I R D S MUC19_C_lupus
1299 G T L E F G N S W K T S Q E C S D T V A Q T - - - - - F P C D S N P Y C K A W A V R K C E I I R D S MUC19_B_taurus
1082 G E L E F G N S W K T S Q E C S D T V T Q S - - - - - F P C D S N P Y C K A W A V R K C E I I R D S MUC19_S_scrofa
1010 G A L E F A N S W K T S Q E C S D T V T Q S - - - - - F P C D S N P Y C K A W A E K R C E I L R D D MUC19_M_musculus
1010 G A L E F A N S W K T S Q E C S D T V T Q S - - - - - F P C D S N P Y C K A W A E K K C E I I R D D MUC19_R_norvegicus
1126 E I V K F A K S W K T D P S C R D S E V Q I - - - - - Y P C D L N G Y C K P W A L R K C Q F I K E D FIMB1_X_laevis


. F . . C . . . V . . . . C . . . . C . C . . . G . . . . . . C . . . A . Y A . . C . . . . . All Match Human VWF
. F . . C . . . V D P . . Y . . . C . . D . C . C . . . G D C . C F C . . . A A Y A . . C . . . G . Majority Match Human VWF
T F A A C H S K V D P T P Y Y E A C V H D A C A C D S G G D C E C F C T A V A A Y A Q A C X D V G V Majority
1110
1120
1130
1140
1150
1067 V F Q D C N K L V D P E P Y L D V C I Y D T C S C E S I G D C A C F C D T I A A Y A H V C A Q H G K VWF_H_sapiens
1058 V F S I C H S K V D P K P F Y E A C V H D S C S C D T G G D C E C F C S A V A S Y A Q E C T K E G A MUC2_H_sapiens
1058 V F S S C H S K V D P K P F Y E A C V H D S C S C D S G G D C E C F C S A V A S Y A Q E C T K E G A MUC2_C_lupus
1058 V F S A C H S K V D P T P F Y E A C V Y D S C S C D S G G D C E C F C S A V A T Y A Q E C T K E G A MUC2_E_caballus
1056 V F K V C H S K V D P T V F Y E A C V H D S C S C D T G G D C D C F C S A V A S Y A Q E C T K A E A MUC2_M_musculus
1055 V F L A C H G K V D P T V F Y D A C V H D S C S C D T G G D C E C F C S A V A S Y A Q E C T K A E A MUC2_R_norvegicus
1055 I F K I C H S K V N P S P F Y D A C V H D A C S C D S G G D C D C F C S A V A A Y A Q E C T K A Q A MUC2_G_gallus
1102 T F A A C H A H V E P A R Y Y E A C V N D A C A C D S G G D C E C F C T A V A A Y A Q A C H E V G L MUC5AC_H_sapiens
1097 T F A A C H A H V E P A K Y Y E A C V G D A C A C D S G G D C E C F C T A V A A Y A Q A C H D V G V MUC5AC_C_lupus
1100 T F A T C H A H V E P A K Y Y E A C V S D A C A C D S G G D C E C F C T A V A A Y A Q A C H E V G V MUC5AC_E_caballus
1101 T F S A C H A H V E P A K Y Y E A C V N D A C A C D S G G D C E C F C T T V A A Y A Q A C H E V G V MUC5AC_M_musculus
1101 A F S A C H A H V E P A K Y Y E A C V N D A C A C D S G G D C E C F C T A V A A Y A Q A C H E V G V MUC5AC_R_norvegicus
1092 T F A A C R S Q V D S T K Y Y E A C V N D A C A C D S G G D C E C F C T A V A A Y A Q A C H D A G L MUC5B_H_sapiens
1094 T F A A C H S Q V D P T K Y Y E A C V G D A C A C D L G G D C E C L C T A V A A Y A Q A C R D V G V MUC5B_C_lupus
1098 T F A A C H S Q V D S T K Y Y E A C V H D V C A C D S G G D C E C F C T A V A A Y A Q A C R D V G V MUC5B_M_musculus
1098 T F A A C H S Q V D S T K Y Y E A C V H D V C A C D S G G D C E C F C T A V A A Y A Q A C R D V G V MUC5B_R_norvegicus
1068 T F A T C H S K V Y H L P Y Y E A C V R D A C G C D S G G D C E C L C D A V A A Y A Q A C L D K G V MUC6_H_sapiens
1070 T F A A C H S Q V Y H L P Y Y E A C V Q D A C G C D T T G D C E C L C D A V A A Y A K A C L D K G V MUC6_C_lupus
1069 T F A A C H S K V Y H L P Y Y E A C V R D A C G C D T G G D C E C L C D A V A A Y A K A C L D K G V MUC6_M_musculus
1068 T F A A C H S K V Y H L P Y Y E A C V H D A C G C D T G G D C E C L C D A V A A Y A K A C L D K G V MUC6_R_norvegicus
1029 V F S A C H N K V N R M P Y Y E A C V R D S C G C D I G G D C E C M C D A I A V Y A M A C L D K G I MUC6_G_gallus
1605 T F R D C H N K V D P S A Y H D V C I E E A C A C D M E G K Y L G F C T A V A M Y A E A C S A V G V MUC19_H_sapiens
1109 I F K E C H H K V D P E A Y L E A C I E E A C A C D T Q G K Y L G F C T A V A M Y A E A C S A V G V MUC19_C_lupus
1344 T F R E C H N K V D P N E Y Y D A C I E E A C A C D M E G K Y L G F C T A V A M Y A E A C S A V G V MUC19_B_taurus
1127 T F R D C H N K V D P S A Y Y D A C I E E A C A C D M E G K Y L G F C T A V A M Y A E A C S A V G V MUC19_S_scrofa
1055 T F R D C H S K V D P T T Y Y D A C I E E A C S C D M E G K Y L G F C T A V A M Y A E A C N A A G V MUC19_M_musculus
1055 T F R D C H S K V D P T T Y Y N A C I E E A C S C D M E G K Y L G F C T A V A M Y A E A C N A A G V MUC19_R_norvegicus
1171 T F K A C H K K V D P T P Y Y D A C V R E A C V C D L E G K Y L G F C T N V A M Y A E A C R R A D V FIMB1_X_laevis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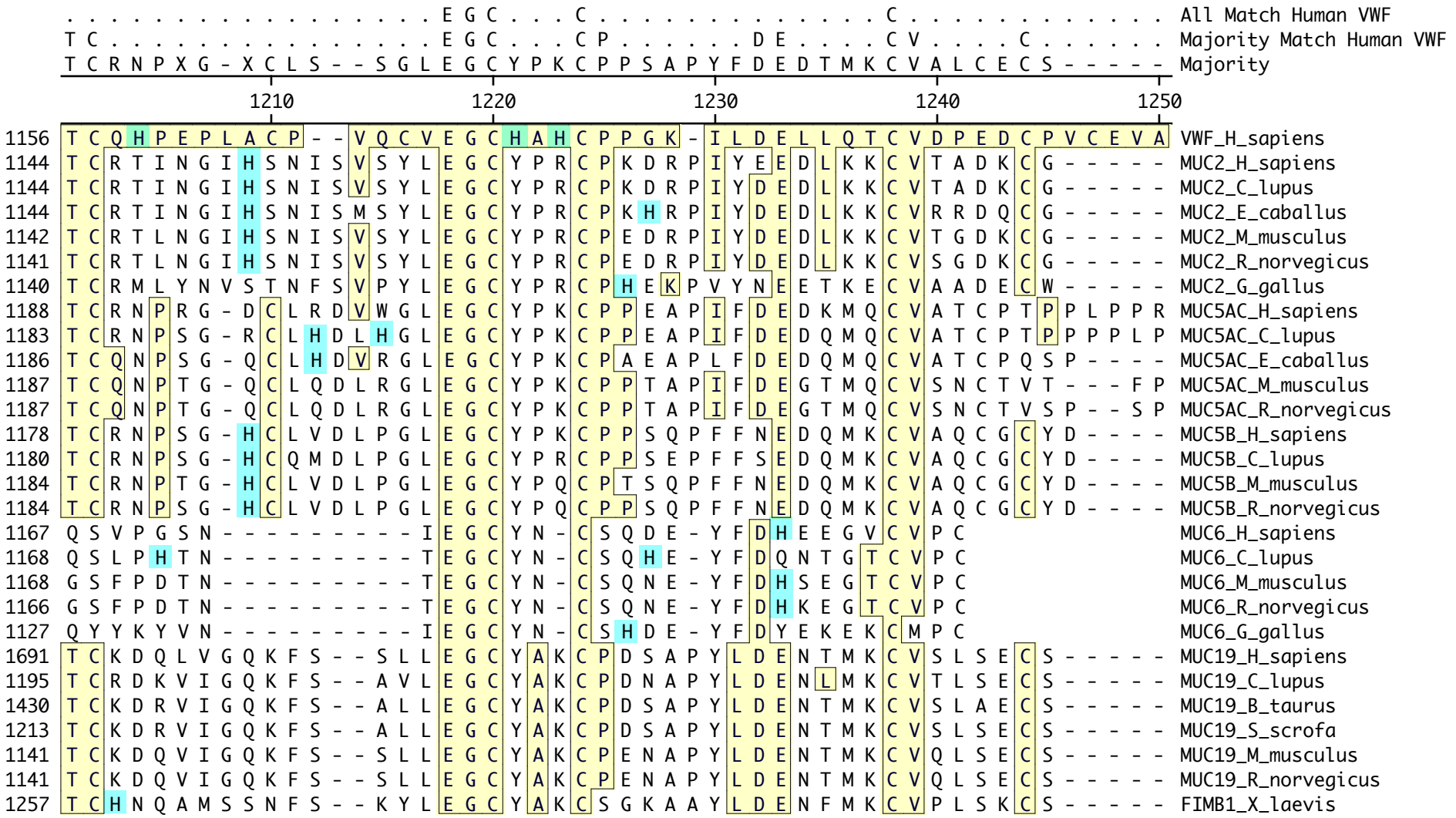
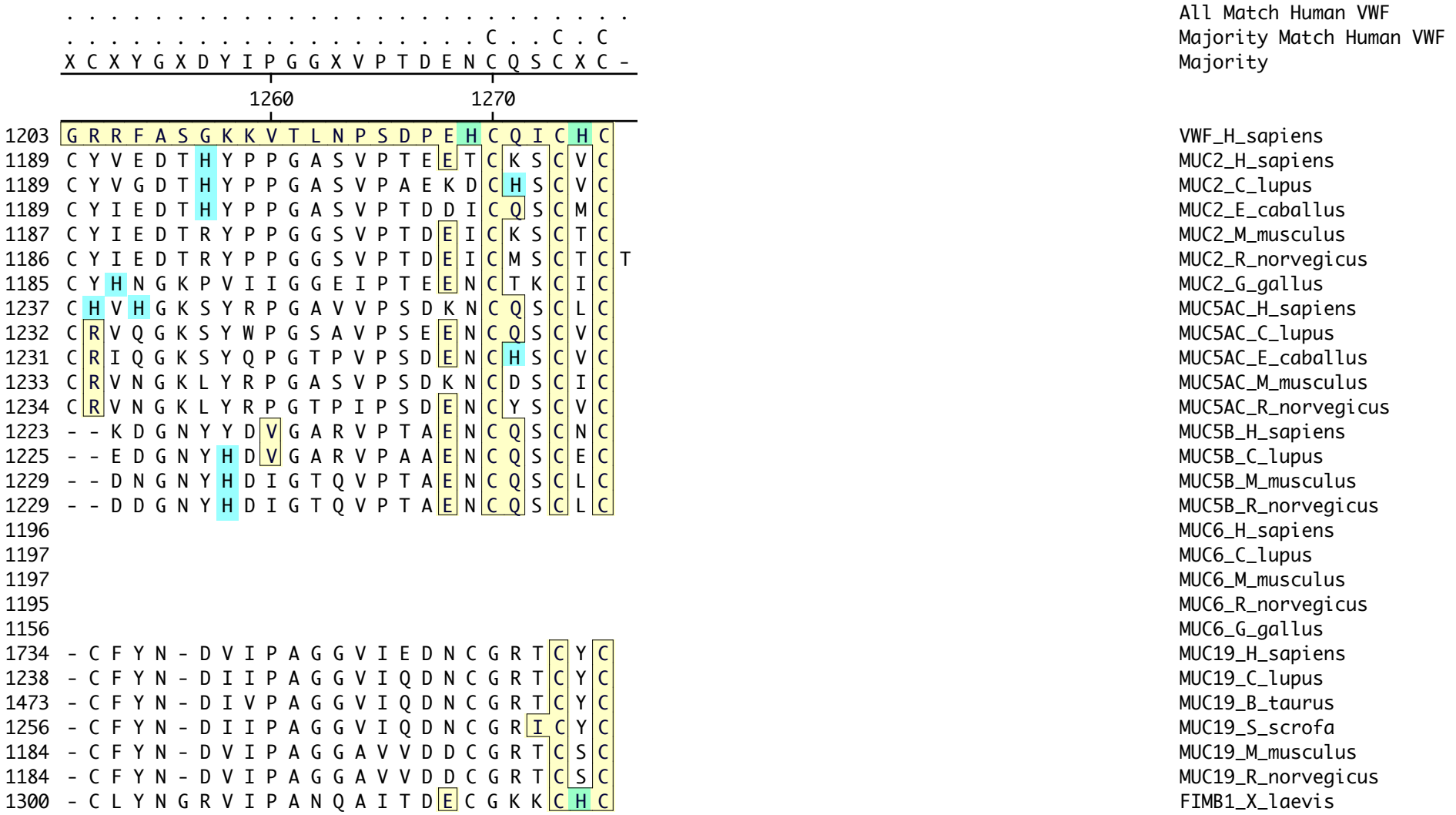
. V . W R T . . . C P . . C . . . N . . - - - - - - - - - - - - - - - . E C E W . Y . . C . . . . . . Majority Match Human VWF
C V S W R T P D L C P X F C D Y Y N P P - - - - - - - - - - - - - - - - G E C E W H Y Q P C G A P C X K Majority
1160
1170
1180
1190
1200
1117 V V T W R T A T L C P Q S C E E R N L R - - - - - - - E - - N G - - Y E C E W R Y N S C A P A C Q V VWF_H_sapiens
1108 C V F W R T P D L C P I F C D Y Y N P P - - - - - - - - - - - - - - - - H E C E W H Y E P C G N R S F E MUC2_H_sapiens
1108 C V F W R T P D L C P I F C D Y Y N P P - - - - - - - - - - - - - - - - D E C E W H Y E P C G N R S F E MUC2_C_lupus
1108 C V F W R T P D L C P I F C D Y Y N P L - - - - - - - - - - - - - - - - H E C E W H Y E P C G N H S F E MUC2_E_caballus
1106 C V F W R T P D L C P I F C D Y Y N P P - - - - - - - - - - - - - - - - D E C E W H Y E P C G N R S F E MUC2_M_musculus
1105 C V F W R T P D L C P V F C D Y Y N P P - - - - - - - - - - - - - - - - D E C E W H Y E P C G N R S F E MUC2_R_norvegicus
1105 C V F W R S P D I C P I F C D Y Y N P R - - - - - - - - - - - - - - - - N E C E W H Y E P C G S N - V M MUC2_G_gallus
1152 C V S W R T P S I C P L F C D Y Y N P E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G V P C L R MUC5AC_H_sapiens
1147 C V S W R T P D I C P L F C D Y Y N P E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G V P C M R MUC5AC_C_lupus
1150 C V S W R S P D V C P L F C D Y Y N P E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G A P C M K MUC5AC_E_caballus
1151 C V S W R T P D I C P L F C D Y Y N P E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G A P C M R MUC5AC_M_musculus
1151 C V S W R T P D I C P L F C D Y Y N P E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G A P C M R MUC5AC_R_norvegicus
1142 C V S W R T P D T C P L F C D F Y N P H - - - - - - - - - - - - - - - - G G C E W H Y Q P C G A P C L K MUC5B_H_sapiens
1144 C V S W R T P D I C P L F C D Y Y N R E - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G A P C M R MUC5B_C_lupus
1148 C L S W R T P D I C P L F C D Y Y N P H - - - - - - - - - - - - - - - - G E C E W H Y Q P C G A P C L K MUC5B_M_musculus
1148 C L S W R T P D I C P L F C D Y Y N P H - - - - - - - - - - - - - - - - G Q C E W H Y Q P C G A P C L K MUC5B_R_norvegicus
1118 C V D W R T P A F C P I Y C G F Y N T H T Q D G H G - E Y Q Y T Q E A N C T W H Y Q P C L C P S Q P MUC6_H_sapiens
1120 C V D W R T P D F C P I Y C D Y Y N T H T H E D G - - A Y Q Y N Q D A N C T W H Y Q P C L C P Q H P MUC6_C_lupus
1119 C V D W R T P D F C P I Y C D F Y N T H T L V G E N - E Y Q Y A Q E S N C T W H Y Q P C L C P G S L MUC6_M_musculus
1118 C V D W R T P D F C P I Y C D F Y N T H T L V G D N - G Y Q I A Q H - N C T W H Y Q P C L C P G S L MUC6_R_norvegicus
1079 C I D W R T P E F C P V Y C E Y Y N S H R K T G S G G A Y S Y G S S V N C T W H Y R P C N C P N - - MUC6_G_gallus
1655 C V S W R K P N L C P V Y C D Y Y N A P - - - - - - - - - - - - - - - - G E C R W H Y E P C G T V T A K MUC19_H_sapiens
1159 C V T W R K P D L C P V F C D Y Y N E P - - - - - - - - - - - - - - - - G E C S W R Y E P C G T V T T K MUC19_C_lupus
1394 C V T W R K P D L C P V Y C D Y Y N A P - - - - - - - - - - - - - - - - G E F S W H Y E P C G T V T A K MUC19_B_taurus
1177 C V T W R K P D L C P V Y C D Y Y N A P - - - - - - - - - - - - - - - - G E C S W R Y E P C G T V T A K MUC19_S_scrofa
1105 C V S W R K P N L C P V Y C D Y Y N A P - - - - - - - - - - - - - - - - G E C S W H Y E P C G T V T A K MUC19_M_musculus
1105 C V S W R K P N L C P V Y C D Y Y N A P - - - - - - - - - - - - - - - - G E C S W H Y E P C G T V T A K MUC19_R_norvegicus
1221 C I Q W R T P E L C P V Y C D Y Y N Q P - - - - - - - - - - - - - - - - G E C T W H Y K P C G S V P V K FIMB1_X_laevis


. . . . . E G C . . . C . . . . C . . . . . All Match Human VWF
T C . . . . . E G C . . . C P . . . . . D E . . . . C V . . . . C . . . . . Majority Match Human VWF
T C R N P X G - X C L S - - S G L E G C Y P K C P P S A P Y F D E D T M K C V A L C E C S - - - - - Majority
1210
1220
1230
1240
1250
1156 T C Q H P E P L A C P - - V Q C V E G C H A H C P P G K - I L D E L L Q T C V D P E D C P V C E V A VWF_H_sapiens
1144 T C R T I N G I H S N I S V S Y L E G C Y P R C P K D R P I Y E E D L K K C V T A D K C G - - - - - MUC2_H_sapiens
1144 T C R T I N G I H S N I S V S Y L E G C Y P R C P K D R P I Y D E D L K K C V T A D K C G - - - - - MUC2_C_lupus
1144 T C R T I N G I H S N I S M S Y L E G C Y P R C P K H R P I Y D E D L K K C V R R D Q C G - - - - - MUC2_E_caballus
1142 T C R T L N G I H S N I S V S Y L E G C Y P R C P E D R P I Y D E D L K K C V T G D K C G - - - - - MUC2_M_musculus
1141 T C R T L N G I H S N I S V S Y L E G C Y P R C P E D R P I Y D E D L K K C V S G D K C G - - - - - MUC2_R_norvegicus
1140 T C R M L Y N V S T N F S V P Y L E G C Y P R C P H E K P V Y N E E T K E C V A A D E C W - - - - - MUC2_G_gallus
1188 T C R N P R G - D C L R D V W G L E G C Y P K C P P E A P I F D E D K M Q C V A T C P T P P L P P R MUC5AC_H_sapiens
1183 T C R N P S G - R C L H D L H G L E G C Y P K C P P E A P I F D E D Q M Q C V A T C P T P P P L P MUC5AC_C_lupus
1186 T C Q N P S G - Q C L H D V R G L E G C Y P K C P A E A P L F D E D Q M Q C V A T C P Q S P - - - - MUC5AC_E_caballus
1187 T C Q N P T G - Q C L Q D L R G L E G C Y P K C P P T A P I F D E G T M Q C V S N C T V T - - - F P MUC5AC_M_musculus
1187 T C Q N P T G - Q C L Q D L R G L E G C Y P K C P P T A P I F D E G T M Q C V S N C T V S P - - S P MUC5AC_R_norvegicus
1178 T C R N P S G - H C L V D L P G L E G C Y P K C P P S Q P F F N E D Q M K C V A Q C G C Y D - - - - MUC5B_H_sapiens
1180 T C R N P S G - H C Q M D L P G L E G C Y P R C P P S E P F F S E D Q M K C V A Q C G C Y D - - - - MUC5B_C_lupus
1184 T C R N P T G - H C L V D L P G L E G C Y P Q C P T S Q P F F N E D Q M K C V A Q C G C Y D - - - - MUC5B_M_musculus
1184 T C R N P S G - H C L V D L P G L E G C Y P Q C P P S Q P F F N E D Q M K C V A Q C G C Y D - - - - MUC5B_R_norvegicus
1167 Q S V P G S N - - - - - - - - - - I E G C Y N - C S Q D E - Y F D H E E G V C V P C MUC6_H_sapiens
1168 Q S L P H T N - - - - - - - - - - T E G C Y N - C S Q H E - Y F D Q N T G T C V P C MUC6_C_lupus
1168 G S F P D T N - - - - - - - - - - T E G C Y N - C S Q N E - Y F D H S E G T C V P C MUC6_M_musculus
1166 G S F P D T N - - - - - - - - - - T E G C Y N - C S Q N E - Y F D H K E G T C V P C MUC6_R_norvegicus
1127 Q Y Y K Y V N - - - - - - - - - - I E G C Y N - C S H D E - Y F D Y E K E K C M P C MUC6_G_gallus
1691 T C K D Q L V G Q K F S - - S L L E G C Y A K C P D S A P Y L D E N T M K C V S L S E C S - - - - - MUC19_H_sapiens
1195 T C R D K V I G Q K F S - - A V L E G C Y A K C P D N A P Y L D E N L M K C V T L S E C S - - - - - MUC19_C_lupus
1430 T C K D R V I G Q K F S - - A L L E G C Y A K C P D S A P Y L D E N T M K C V S L A E C S - - - - - MUC19_B_taurus
1213 T C K D R V I G Q K F S - - A L L E G C Y A K C P D S A P Y L D E N T M K C V S L S E C S - - - - - MUC19_S_scrofa
1141 T C K D Q V I G Q K F S - - S L L E G C Y A K C P E N A P Y L D E N T M K C V Q L S E C S - - - - - MUC19_M_musculus
1141 T C K D Q V I G Q K F S - - S L L E G C Y A K C P E N A P Y L D E N T M K C V Q L S E C S - - - - - MUC19_R_norvegicus
1257 T C H N Q A M S S N F S - - K Y L E G C Y A K C S G K A A Y L D E N F M K C V P L S K C S - - - - - FIMB1_X_laevis


All Match Human VWF
Majority Match Human VWF
Majority
1260
1270
1203 G R R F A S G K K V T L N P S D P E H C Q I C H C VWF_H_sapiens
1189 C Y V E D T H Y P P G A S V P T E E T C K S C V C MUC2_H_sapiens
1189 C Y V G D T H Y P P G A S V P A E K D C H S C V C MUC2_C_lupus
1189 C Y I E D T H Y P P G A S V P T D D I C Q S C M C MUC2_E_caballus
1187 C Y I E D T R Y P P G G S V P T D E I C K S C T C MUC2_M_musculus
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1185 C Y H N G K P V I I G G E I P T E E N C T K C I C MUC2_G_gallus
1237 C H V H G K S Y R P G A V V P S D K N C Q S C L C MUC5AC_H_sapiens
1232 C R V Q G K S Y W P G S A V P S E E N C Q S C V C MUC5AC_C_lupus
1231 C R I Q G K S Y Q P G T P V P S D E N C H S C V C MUC5AC_E_caballus
1233 C R V N G K L Y R P G A S V P S D K N C D S C I C MUC5AC_M_musculus
1234 C R V N G K L Y R P G T P I P S D E N C Y S C V C MUC5AC_R_norvegicus
1223 - - K D G N Y Y D V G A R V P T A E N C Q S C N C MUC5B_H_sapiens
1225 - - E D G N Y H D V G A R V P A A E N C Q S C E C MUC5B_C_lupus
1229 - - D N G N Y H D I G T Q V P T A E N C Q S C L C MUC5B_M_musculus
1229 - - D D G N Y H D I G T Q V P T A E N C Q S C L C MUC5B_R_norvegicus
1196 MUC6_H_sapiens
1197 MUC6_C_lupus
1197 MUC6_M_musculus
1195 MUC6_R_norvegicus
1156 MUC6_G_gallus
1734 - C F Y N - D V I P A G G V I E D N C G R T C Y C MUC19_H_sapiens
1238 - C F Y N - D I I P A G G V I Q D N C G R T C Y C MUC19_C_lupus
1473 - C F Y N - D I V P A G G V I Q D N C G R T C Y C MUC19_B_taurus
1256 - C F Y N - D I I P A G G V I Q D N C G R I C Y C MUC19_S_scrofa
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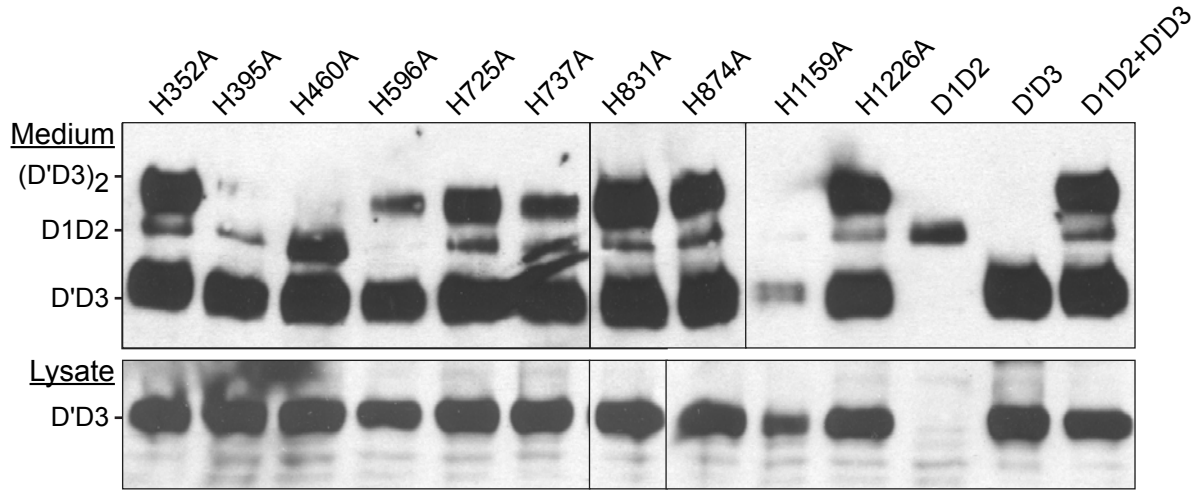

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Figure S5