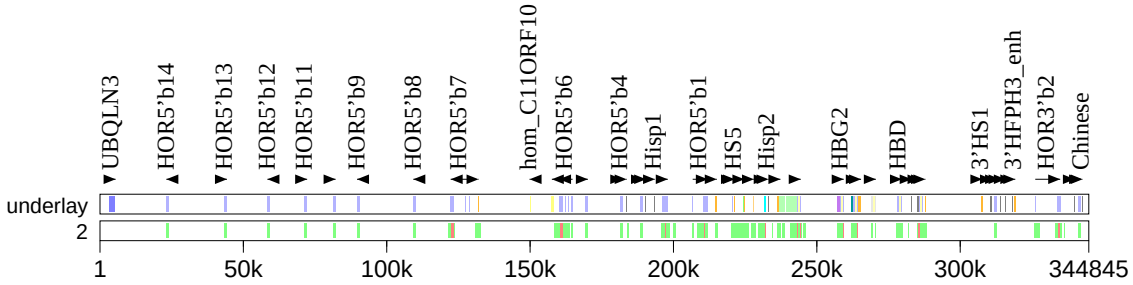
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HOR5'b7
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HOR5'b6
HOR5'b4
Hisp1
HOR5'b1
HS5
Hisp2
HBG2
HBD
3'HS1
3'HFPH3_enh
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300k
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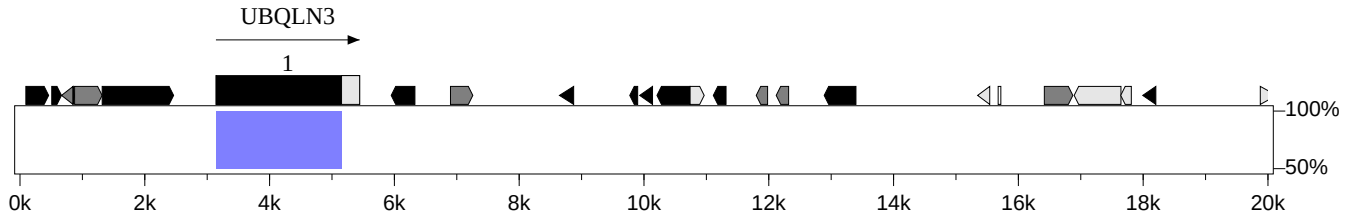
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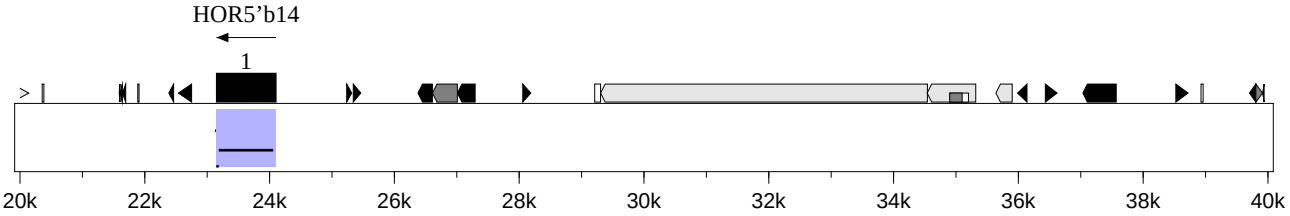
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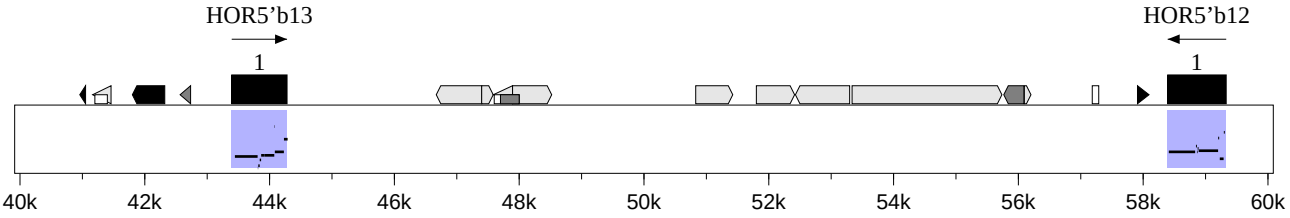
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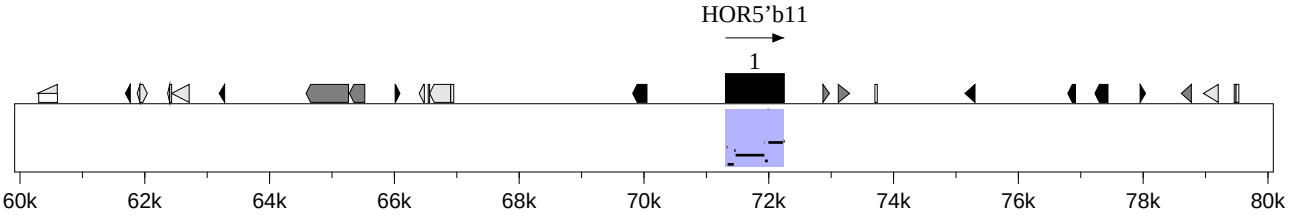
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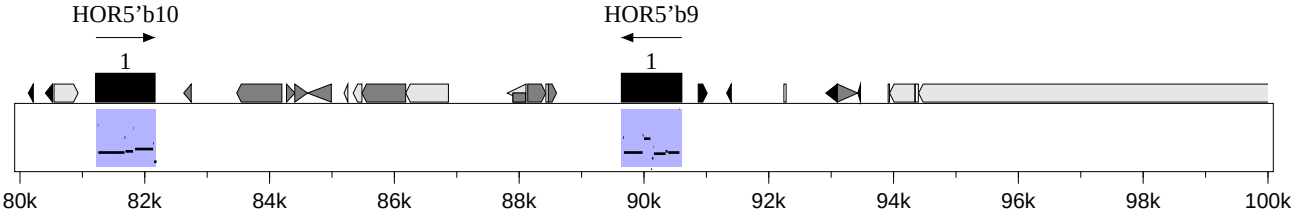
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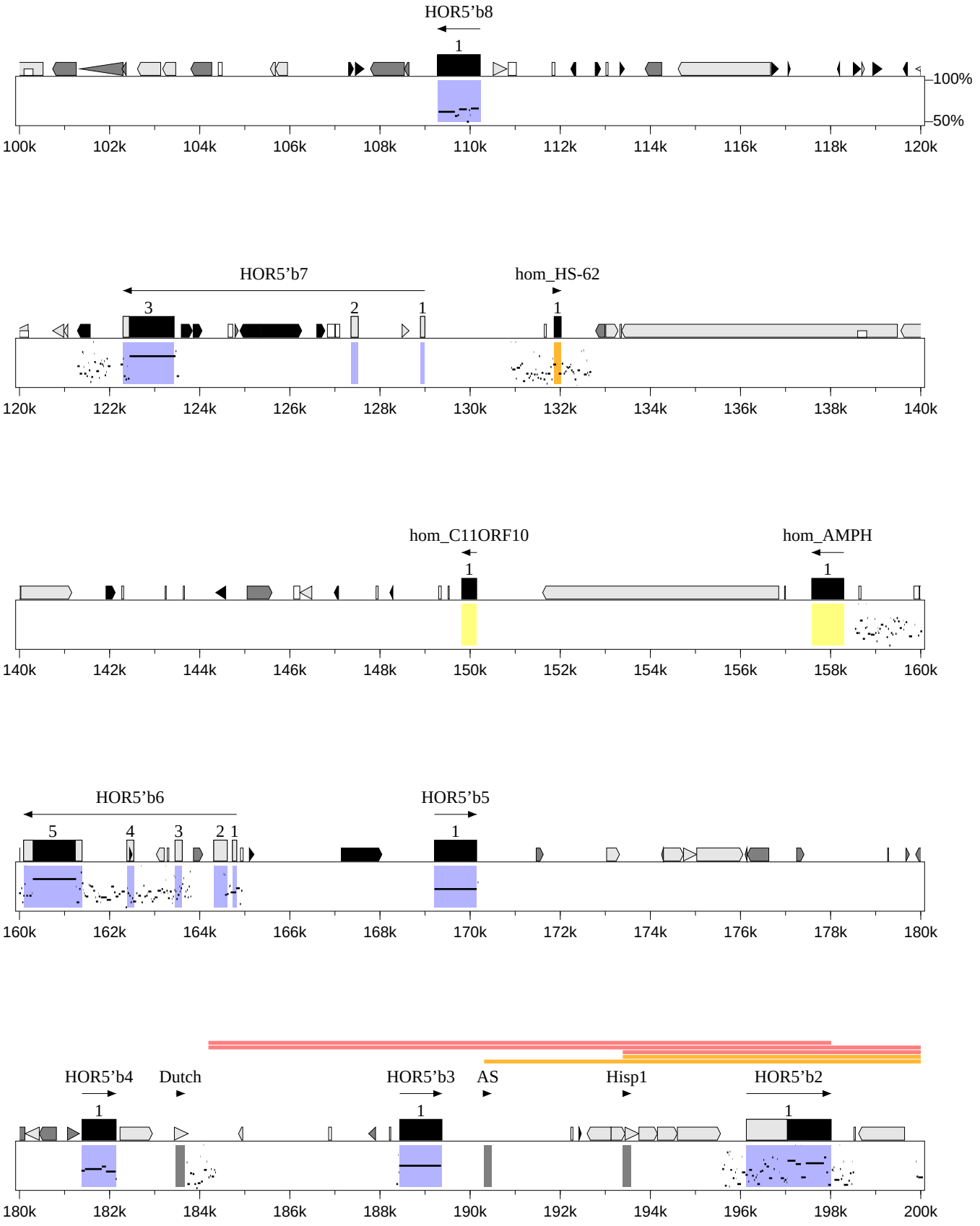
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120k
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hom_HS-62
3
2
1
1
120k
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126k
128k
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132k
134k
136k
138k
140k
hom_C11ORF10
hom_AMPH
1
1
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146k
148k
150k
152k
154k
156k
158k
160k
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5
4
3
2 1
1
160k
162k
164k
166k
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174k
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180k
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Dutch
HOR5’b3
AS
Hisp1
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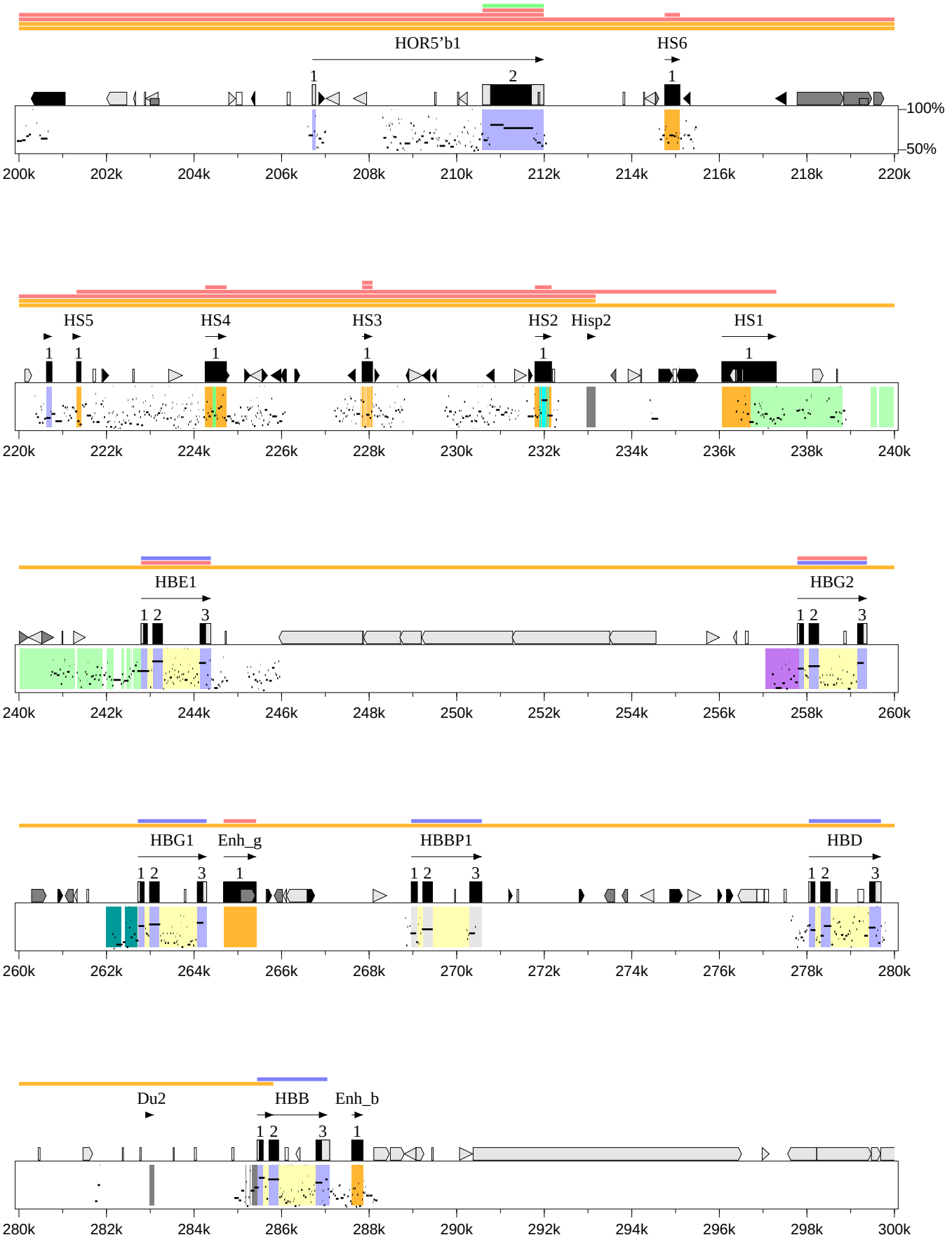
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HS4
HS3
HS2
Hisp2
HS1
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222k
224k
226k
228k
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232k
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238k
240k
HBE1
HBG2
240k
242k
244k
246k
248k
250k
252k
254k
256k
258k
260k
HBG1
Enh_g
HBBP1
HBD
260k
262k
264k
266k
268k
270k
272k
274k
276k
278k
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Du2
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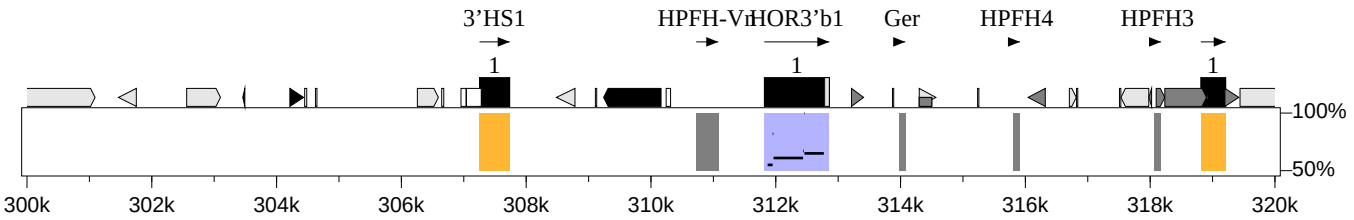
3’HS1
HPFH-Vi
HOR3’b1
Ger
HPFH4
HPFH3
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314k
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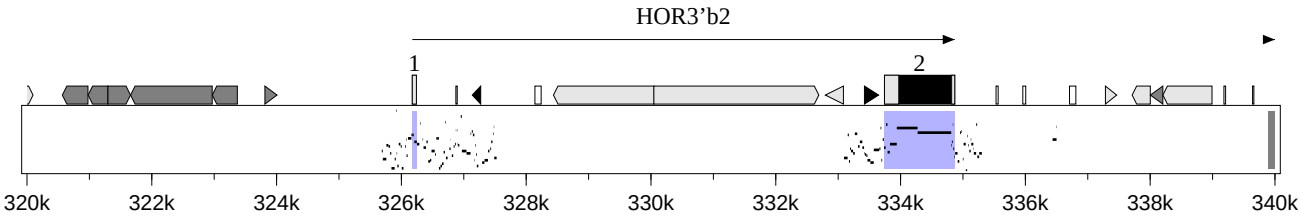
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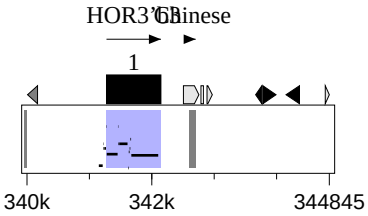
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1
340k
342k
344845

• 184192 211989 (3; PubMed)

Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes. Bulger M, van Doorninck JH, Saitoh N, Telling A, Farrell C, Bender MA, Felsenfeld G, Axel R, Groudine M, von Doorninck JH. Proc Natl Acad Sci U S A. 1999 Apr 27;96(9):5129-34. click to see abstract ☞

• 184192 198013 (4; PubMed)

Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes. Bulger M, van Doorninck JH, Saitoh N, Telling A, Farrell C, Bender MA, Felsenfeld G, Axel R, Groudine M, von Doorninck JH. Proc Natl Acad Sci U S A. 1999 Apr 27;96(9):5129-34.

☞

• 190311 285813 (0; Huisman_Syllabus_Online)
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• 193387 233174 (1; Huisman_Syllabus_Online)
click to see Hispanic (epsilongammadeltabeta)_-Thal ☞

• 193387 233174 (2; PubMed)

A deletion of the human beta-globin locus activation region causes a major alteration in chromatin structure and replication across the entire beta-globin locus. Forrester WC, Epner E, Driscoll MC, Enver T, Brice M, Papayannopoulou T, Groudine M Genes Dev 1990 Oct;4(10):1637-49. ☞

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Conservation of sequence and structure flanking the mouse and human beta-globin loci: the beta-globin genes are embedded within an array of odorant receptor genes. Bulger M, van Doorninck JH, Saitoh N, Telling A, Farrell C, Bender MA, Felsenfeld G, Axel R, Groudine M, von Doorninck JH. Proc Natl Acad Sci U S A. 1999 Apr 27;96(9):5129-34.

• 210589 211989 (5; Olfactory_Receptor_Database)
click to see HOR5’beta1 entry ☞

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> In vivo protein-DNA interactions at hypersensitive site 3 of the human b-globin locus control region. Strauss, E. C., and Orkin, S. H. (1992).Proc. Natl. Acad. Sci., USA 89, 5809-5813. click to see abstract ☞

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  genomic footprinting and sequencing of human b-globin locus: Tissue specificity and cell line artifact. Reddy, P. M. S., Stamatoyannopoulos, G., Papayannopoulou, T., and Shen, C.-K. J. (1994). J. Biol. Chem. 269, 8287-8295 click to see abstract ☞

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- 242791 244383 (2; LocusLink)
  click to see LocuLink entry for HBE1 ☞

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Identification of a stage selector element in the human g-globin gene promoter that fosters preferential interaction with the 5' HS2 enhancer when in competition with the b-promoter. Jane, S. M., Ney, P. A., Vanin, E. F., Gumucio, D. L. and Nienhuis, A. W. (1992). EMBO J. 11: 2961-2969. click to see abstract ☞

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Function of normal and mutated g-globin gene promoters in electroporated K562 erythroleukemia cells. Ulrich, M. and Ley, T. J. (1990). Blood 75: 990-999. ☞

- 257781 259372 (1; LocusLink)
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- 262717 264288 (1; LocusLink)
  click to see LocusLink entry for HBG1 ☞

- 264676 265420 (1; PubMed)
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- 268961 270575 (1; LocusLink)
  click to see locusLink entry for HBBP1 ☞

- 278043 279692 (1; LocusLink)
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- 285440 287045 (1; LocusLink)
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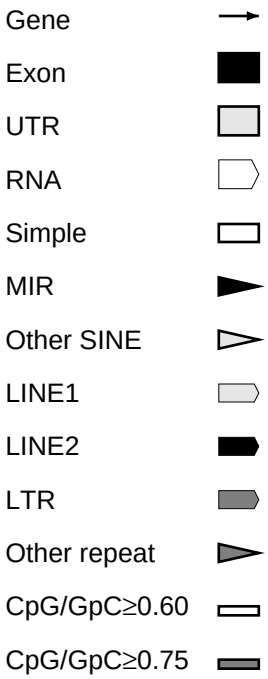

HBB

Fri Jul 13 21:11:57 EDT 2001
http://bio.cse.psu.edu/pipmaker/

Annotations legend

- Huisman_Syllabus_Online : Orange
- Olfactory_Receptor_Database : Green
- LocusLink : Blue
- PubMed : Red

Underlays legend

- Non_globin_gene : Blue
- ORG_exon : LightBlue
- Regulatory_element : Orange
- Non_globin_pseudogene : Yellow
- Thalassemia_deletion_endpoint : DarkGray
- Globin_gene_exon : LightBlue
- Globin_pseudogene : LightGray
- intron : LightYellow
- HS4_fxnl_element : Green
- HS3_fxnl_element : LightOrange
- HS2_fxnl_element : Cyan
- HBE1_fxnl_element : LightGreen
- HBG2_fxnl_element : LightPurple
- HBB_fxnl_element : Gray
- HBG1_reg : DarkCyan
- CNS_70 : Pink
- CNS_80 : LightRed