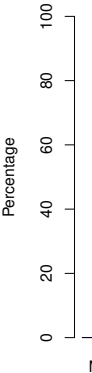
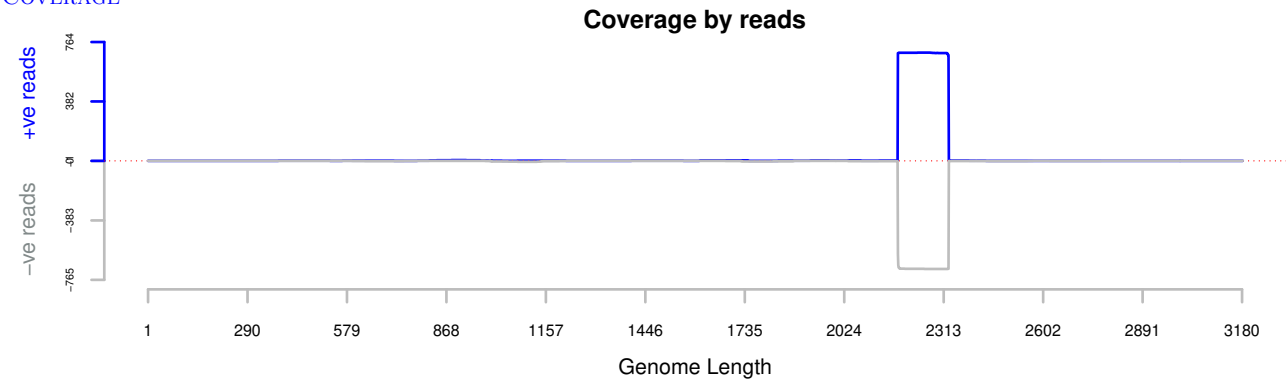


HBV-RYD-53

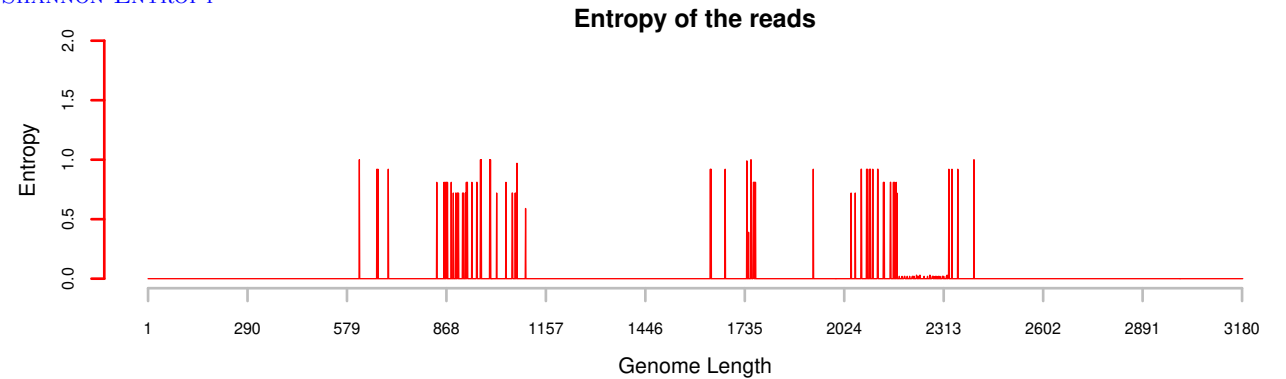
File name	HBV-RYD-53.sam
Ref name	KM606753.1 Hepatitis B virus isolate Cuba109, complete genome
Ref len	3182
Program used	Tanoti Assembler 1.0
Total reads	406034
Mapped reads	1425 (0.35%)
Unmapped reads	404609
Mapped loan pairs	1
Average read length	147nt
Coverage	2069nt (65.02%)
Average depth	66 reads/site
Average insert length	0nt



COVERAGE



SHANNON ENTROPY



CONSENSUS SEQUENCE

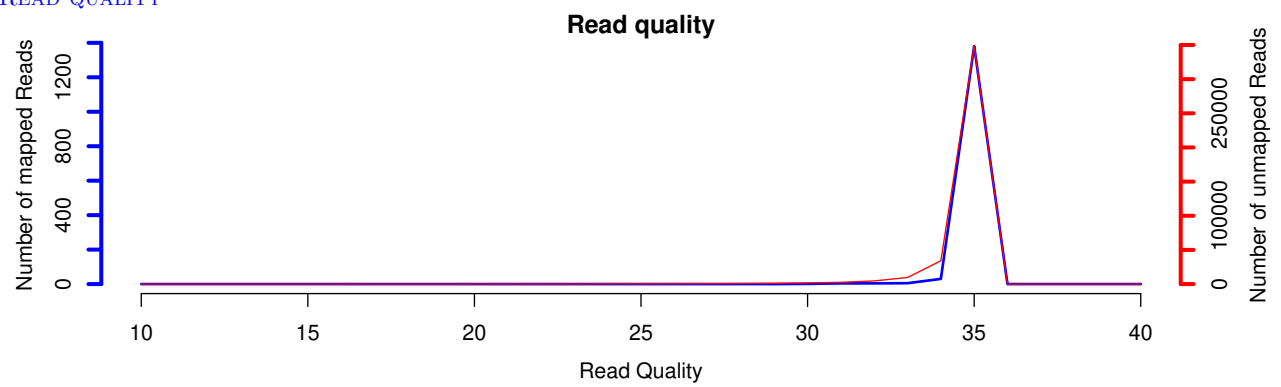
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70     NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
140    NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
210    NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
280    NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
350    NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN GTCTGCGCG TTTTATCATC TTCCTCTTCA TCCTGCTGCT
420    ATGCTCATC TTCTTGTTGG TTCTTCTGGA CTATCAAGGT ATGTTGCCCC TTTGTCCTCA AATTCCAGGA
490    TCATCAACCA CCAGTACGGG ACCCTGCCGA ACCTGCACGN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
560    NNNNTGCTG TTCAAAACCT TCGGACGGAA ATTGCACTTG TATCCCATC CCATCATCAT GGGCTTTCGG
630    AAAATTCCTA TGGGAGTGGG CCTCAGCCCG TTTCTTCTGG CTCAGTTTAC TAGTGCCATT TGTTCACTGG
700    TTCGTCGGGC TTTCCCCCAC TGTCTGGCTT TCAGTTATAT GGATGATGTG GTATTGGGGG CCAAGTCTGT
770    ACAACATCTT GNNTCCCTTT ATACCTCTGT TACCAATTTT CTTTTGTCTT TGGGTATACA TTTAAATCCC
840    AACAAAACAA AAAGATGGGG ATATTCCTTA AATTTCATGG GTTATGTAAT TGGAAAGTTG GGATCATTGC
910    CACAGGAACA CATCAGAAATG AAAATCAAAG ACTGTTTGTAG AAAACTCCCT GTTAACCGGC CTATTGATTG
980    GAAAGTCTGT CAACGTATTG TGGGCTTTTT GGGCTTTGCT GCCCCTTTTA CACAATGTGG ATATCCTGCT
1050   TTAATGCCTC TGTATGCGTG TATTCAATCT AAGCAGGCTT TCACTTTCTC GCCAACTTAC AAGGCCTTTC
1120   TGTGTAAACA ATACCTGAAC CTTTACCCCG TTGCCCGCA ACGGCCAGGT CTGTGCCAAG TGTTTGCTGA
1190   TGCAACCCCC ACTGGCTGGG GCTTGNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
1260   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
1330   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
1400   NNNNTGCGA GGGACGCTCT TTGTCTACGT CCCGTACGCG CTGAATCCTG CGGACGACCC GTCTCGGGGT
1470   CGCTTGGGGA TCTATCGTCC CTTCTCCGT CTGCCGTTCC AGCCGACCAC GGGGCGCACC TCTCTTACG
1540   CGGTCTCCCC GTCTGTNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNGTCGCATG
1610   GAGACCACCG TGAACGCCCA CCAATCTTGT CCCAAGGTCT TACATAAGAG GACTCTTGA CTCTCTGTAA
1680   TGTCAACGAC CGACCTTGAG GCATACTTCA AAGACTGTTT GTTTAAAGAC TGGGAGGAGT TGGGGGAGGA
1750   GACTAGATTA ATGATCTTTG TACTAGGAGG CTGTAGGCAT AAATTGGTCT GCGCACCAGC ACCATGCAAC
1820   TTTTTCACCT CTGCCTAATC ATCTCTTGTT CATGTCCTAC TGTTCAGGCC TCCAAGCTGT GCCTTGGGTG
1890   GCTTTGGGGC ATGGACATTG ACCCTTATAA AGAATTTGGA GCTTCTGTGG AGTTACTCTC GTTTTTGCCT
1960   TCTGACTTCT TTCCTTCAGT ACGACAGCTT CTAGATACCG CCTCAGCTCT ATATCGAGAA GCCTTAGAGT
2030   CTCCTGAGCA TTGTTACCTT CACCATACTG CACTCAGGCA AGAAATCTT TGCTGGGGGG AACTAATGAC
2100   TCTAGCCACC TGGGTGGGTG GTAATTTGGA AGATCCAAC TCCAGGGACC TAGTAGTCGG TTATGTTAAC
2170   ACTAATATGG GCCTAAAGTT CAGGCAACTA TTGTGGTTTC ACATTCTTG TCTCACTTTT GGAAGAGAAA
2240   CGGTCATAGA GTATTTGGTG TCTTTCGGAG TGTGGATTCT CACTCCTCCA GCTTATAGAC CACCAAATGC
2310   CCCTATCTTA TCAACACTTC CGGAGAATAC TGTGTTAGA CGAAGAGGCA GGTCCCCTAG AAGAAGAACT
2380   CCCTCGCCTC GCAGACGAAG GTCTCAATCG CCGCGTCGCA GAAGATCTCA ATCTCCAGCT TCCCAATGTT
2450   AGTATTCCTT GGACTCACAA GGTGGGAAAT TTTACGGGGC TTTACTCTTC TACTATACCT GTCTTTAATC
2520   CTAACCTGGAA AACTCCATCT TTTCTGATA TTCATTTGCA CCAGGACATT ATNNNNNNNN NNNNNNNNNN
2590   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN AAGACTACAA TTGATTATGC CTGCTAGGTT CTATCCAAAG
2660   GTTACCAAAT ATTTGCCATT GGATAAGGGT ATTAAACCTT ATTATCCAGA ACATCTAGTT AATCATTACT
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2870   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
2940   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
3010   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
3080   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN
3150   NNNNNNNNNN NNNNNNNNNN NNNNNNNNNN NN

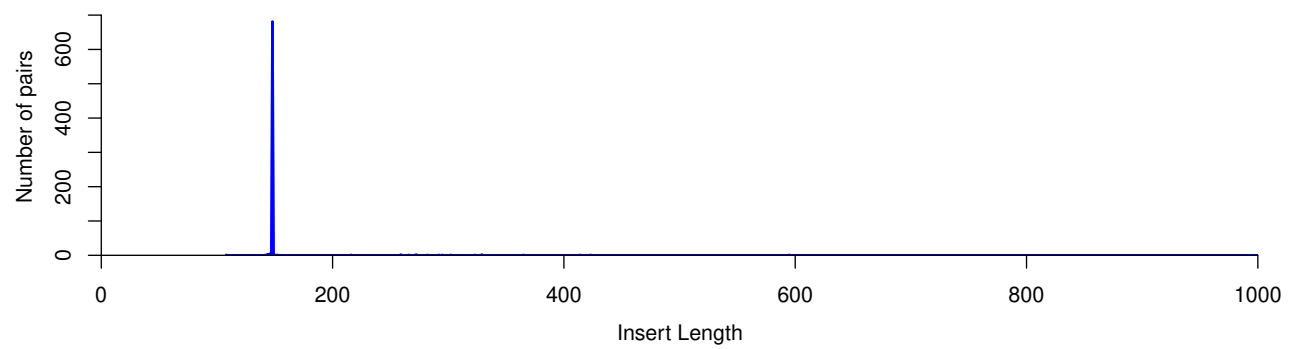
```

Genome Composition	
A	470 (14.77%)
T	629 (19.77%)
G	449 (14.11%)
C	521 (16.37%)
N	1113 (34.98%)
Total Nucleotides	3182
GC%	46.88

READ QUALITY



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AMINO ACID VARIATIONS

Protein	Position	Ref AA	Consensus AA	All AAs
P2	127	F	S	S::100.00(1)
P2	128	F	A	A::100.00(1)
P2	129	F	A	A::100.00(1)
P2	131	F	Y	Y::100.00(1)
P2	132	F	H	H::100.00(1)
P2	133	F	L	L::100.00(1)
P2	134	F	P	P::100.00(1)
P2	135	F	L	L::100.00(1)
P2	136	F	H	H::100.00(1)
P2	137	F	P	P::100.00(1)
P2	138	F	A	A::100.00(1)
P2	139	F	A	A::100.00(1)
P2	140	F	M	M::100.00(1)
P2	141	F	P	P::100.00(1)
P2	142	F	H	H::100.00(1)
P2	143	F	L	L::100.00(1)
P2	144	F	L	L::100.00(1)
P2	145	F	V	V::100.00(1)
P2	146	F	G	G::100.00(1)
P2	147	F	S	S::100.00(1)
P2	148	F	S	S::100.00(1)
P2	149	F	G	G::100.00(1)
P2	150	F	L	L::100.00(1)
P2	151	F	S	S::100.00(1)
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P2	153	F	Y	Y::100.00(1)
P2	154	F	V	V::100.00(1)
P2	155	F	A	A::100.00(1)
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P2	157	F	L	L::100.00(1)
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P2	163	F	I	I::100.00(1)
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P2	169	F	G	G::100.00(1)
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P2	192	F	T	T::100.00(1)
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P2	195	F	R	R::100.00(1)
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P2	199	F	L	L::100.00(2)
P2	200	F	Y	Y::100.00(2)
P2	201	F	S	S::100.00(2)
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P2	207	F	G	G::100.00(2)
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P2	214	F	G	G::100.00(3)
P2	215	F	V	V::100.00(3)
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P2	217	F	L	L::100.00(3)
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P2	244	F	S	S::100.00(2)

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P2	254	F	K	K::100.00(1)
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P2	270	F	L	L::100.00(1)
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P2	286	F	G	G::100.00(4)
P2	287	F	Y	Y::100.00(4)
P2	288	F	S	S::100.00(4)
P2	289	F	L	L::100.00(4)
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P2	404	F	L	L::100.00(2)
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P2	471	F	T	T::100.00(1)

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P2	480	F	L	L::100.00(1)
P2	481	F	N	N::100.00(1)
P2	482	F	P	P::100.00(1)
P2	483	F	A	A::100.00(1)
P2	484	F	D	D::100.00(1)
P2	485	F	D	D::100.00(1)
P2	486	F	P	P::100.00(1)
P2	487	F	S	S::100.00(1)
P2	488	F	R	R::100.00(1)
P2	489	F	G	G::100.00(1)
P2	490	F	R	R::100.00(1)
P2	491	F	L	L::100.00(1)
P2	492	F	G	G::100.00(1)
P2	493	F	I	I::100.00(1)
P2	494	F	Y	Y::100.00(1)
P2	495	F	R	R::100.00(1)
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P2	497	F	L	L::100.00(1)
P2	498	F	L	L::100.00(1)
P2	499	F	R	R::100.00(1)
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P2	507	F	G	G::100.00(1)
P2	508	F	R	R::100.00(1)
P2	509	F	T	T::100.00(1)
P2	510	F	S	S::100.00(1)
P2	511	F	L	L::100.00(1)
P2	512	F	Y	Y::100.00(1)
P2	513	F	A	A::100.00(1)
P2	514	F	V	V::100.00(1)
P2	515	F	S	S::100.00(1)
P2	516	F	P	P::100.00(1)
P2	517	F	S	S::100.00(1)
P2	534	F	V	V::100.00(1)
P2	535	F	A	A::100.00(3)
P2	536	F	W	W::100.00(3)
P2	537	F	R	R::100.00(3)
P2	538	F	P	P::100.00(3)
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S2	127	F	C	C::100.00(1)
S2	128	F	L	L::100.00(1)

S2	129	F	R	R::100.00(1)
S2	130	F	R	R::100.00(1)
S2	132	F	I	I::100.00(1)
S2	133	F	I	I::100.00(1)
S2	135	F	L	L::100.00(1)
S2	137	F	I	I::100.00(1)
S2	138	F	L	L::100.00(1)
S2	139	F	L	L::100.00(1)
S2	140	F	L	L::100.00(1)
S2	141	F	C	C::100.00(1)
S2	142	F	L	L::100.00(1)
S2	143	F	I	I::100.00(1)
S2	145	F	L	L::100.00(1)
S2	146	F	L	L::100.00(1)
S2	147	F	V	V::100.00(1)
S2	148	F	L	L::100.00(1)
S2	149	F	L	L::100.00(1)
S2	150	F	D	D::100.00(1)
S2	151	F	Y	Y::100.00(1)
S2	152	F	Q	Q::100.00(1)
S2	153	F	G	G::100.00(1)
S2	154	F	M	M::100.00(1)
S2	155	F	L	L::100.00(1)
S2	156	F	P	P::100.00(1)
S2	157	F	V	V::100.00(1)
S2	158	F	C	C::100.00(1)
S2	159	F	P	P::100.00(1)
S2	160	F	Q	Q::100.00(1)
S2	161	F	I	I::100.00(1)
S2	162	F	P	P::100.00(1)
S2	163	F	G	G::100.00(1)
S2	164	F	S	S::100.00(1)
S2	165	F	S	S::100.00(1)
S2	166	F	T	T::100.00(1)
S2	167	F	T	T::100.00(1)
S2	168	F	S	S::100.00(1)
S2	169	F	T	T::100.00(1)
S2	170	F	G	G::100.00(1)
S2	171	F	P	P::100.00(1)
S2	172	F	C	C::100.00(1)
S2	173	F	R	R::100.00(1)
S2	174	F	T	T::100.00(1)
S2	175	F	C	C::100.00(1)
S2	176	F	T	T::100.00(1)
S2	189	F	C	C::100.00(1)
S2	190	F	C	C::100.00(1)
S2	191	F	S	S::100.00(1)
S2	192	F	K	K::100.00(1)
S2	193	F	P	P::100.00(1)
S2	194	F	S	S::100.00(1)
S2	195	F	D	D::100.00(1)

S2	196	F	G	G::100.00(1)
S2	197	F	N	N::100.00(1)
S2	198	F	C	C::100.00(1)
S2	199	F	T	T::100.00(2)
S2	200	F	C	C::100.00(2)
S2	201	F	I	I::100.00(2)
S2	202	F	P	P::100.00(2)
S2	203	F	I	I::100.00(2)
S2	204	F	P	P::100.00(2)
S2	205	F	S	S::50.00(1) L::50.00(1)
S2	206	F	S	S::100.00(2)
S2	207	F	W	W::100.00(2)
S2	208	F	A	A::100.00(2)
S2	210	F	G	G::100.00(2)
S2	211	F	K	K::100.00(3)
S2	213	F	L	L::100.00(3)
S2	214	F	W	W::100.00(3)
S2	215	F	E	E::100.00(3)
S2	216	F	W	W::100.00(3)
S2	217	F	A	A::100.00(3)
S2	218	F	S	S::100.00(3)
S2	219	F	A	A::100.00(3)
S2	220	F	R	R::100.00(3)
S2	222	F	F	F::66.67(2) S::33.33(1)
S2	223	F	W	W::66.67(2) S::33.33(1)
S2	224	F	L	L::100.00(3)
S2	225	F	S	S::100.00(3)
S2	226	F	L	L::100.00(3)
S2	227	F	L	L::100.00(3)
S2	228	F	V	V::100.00(3)
S2	229	F	P	P::100.00(3)
S2	231	F	V	V::100.00(3)
S2	232	F	Q	Q::100.00(3)
S2	233	F	W	W::66.67(2) *::33.33(1)
S2	235	F	V	V::100.00(3)
S2	236	F	G	G::100.00(3)
S2	237	F	L	L::100.00(3)
S2	238	F	S	S::100.00(3)
S2	239	F	P	P::100.00(2)
S2	240	F	T	T::100.00(2)
S2	241	F	V	V::100.00(2)
S2	242	F	W	W::100.00(2)
S2	243	F	L	L::100.00(2)
S2	244	F	S	S::100.00(2)
S2	245	F	V	V::100.00(2)
S2	246	F	I	I::100.00(2)
S2	247	F	W	W::100.00(2)
S2	248	F	M	M::100.00(1)
S2	249	F	M	M::100.00(1)
S2	250	F	W	W::100.00(1)
S2	251	F	Y	Y::100.00(1)

S2	252	F	W	W::100.00(1)
S2	253	F	G	G::100.00(1)
S2	254	F	P	P::100.00(1)
S2	255	F	S	S::100.00(1)
S2	256	F	L	L::100.00(1)
S2	257	F	Y	Y::100.00(1)
S2	258	F	N	N::100.00(1)
S2	259	F	I	I::100.00(1)
S2	260	F	L	L::100.00(1)
S2	262	F	P	P::100.00(1)
S2	264	F	I	I::100.00(1)
S2	265	F	P	P::100.00(1)
S2	266	F	L	L::100.00(1)
S2	267	F	L	L::100.00(1)
S2	268	F	P	P::100.00(1)
S2	269	F	I	I::100.00(1)
S2	272	F	C	C::100.00(1)
S2	273	F	L	L::100.00(1)
S2	274	F	W	W::100.00(3)
S2	275	F	V	V::100.00(3)
S2	276	F	Y	Y::100.00(3)
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X	12	F	A	A::100.00(1)
X	13	F	R	R::100.00(1)
X	14	F	D	D::100.00(1)
X	15	F	V	V::100.00(1)
X	16	F	L	L::100.00(1)
X	17	F	C	C::100.00(1)
X	18	F	L	L::100.00(1)
X	19	F	R	R::100.00(1)
X	20	F	P	P::100.00(1)
X	21	F	V	V::100.00(1)
X	22	F	S	S::100.00(1)
X	23	F	A	A::100.00(1)
X	24	F	E	E::100.00(1)
X	25	F	S	S::100.00(1)
X	26	F	C	C::100.00(1)
X	27	F	G	G::100.00(1)
X	28	F	R	R::100.00(1)
X	29	F	P	P::100.00(1)
X	30	F	V	V::100.00(1)
X	31	F	S	S::100.00(1)
X	32	F	G	G::100.00(1)
X	33	F	S	S::100.00(1)
X	34	F	L	L::100.00(1)
X	35	F	G	G::100.00(1)
X	36	F	D	D::100.00(1)
X	37	F	L	L::100.00(1)
X	38	F	S	S::100.00(1)
X	39	F	S	S::100.00(1)
X	40	F	P	P::100.00(1)
X	41	F	S	S::100.00(1)

X	42	F	P	P::100.00(1)
X	43	F	S	S::100.00(1)
X	44	F	A	A::100.00(1)
X	45	F	V	V::100.00(1)
X	46	F	P	P::100.00(1)
X	47	F	A	A::100.00(1)
X	48	F	D	D::100.00(1)
X	49	F	H	H::100.00(1)
X	50	F	G	G::100.00(1)
X	51	F	A	A::100.00(1)
X	52	F	H	H::100.00(1)
X	53	F	L	L::100.00(1)
X	54	F	S	S::100.00(1)
X	55	F	L	L::100.00(1)
X	56	F	R	R::100.00(1)
X	57	F	G	G::100.00(1)
X	58	F	L	L::100.00(1)
X	59	F	P	P::100.00(1)
X	60	F	V	V::100.00(1)
X	61	F	C	C::100.00(1)
X	78	F	R	R::100.00(3)
X	79	F	M	M::100.00(3)
X	80	F	E	E::100.00(3)
X	81	F	T	T::100.00(3)
X	82	F	T	T::100.00(3)
X	83	F	V	V::100.00(3)
X	84	F	N	N::100.00(3)
X	85	F	A	A::100.00(3)
X	86	F	H	H::100.00(3)
X	87	F	Q	Q::100.00(3)
X	88	F	F	F::66.67(2) I::33.33(1)
X	89	F	L	L::100.00(3)
X	90	F	P	P::100.00(3)
X	91	F	K	K::100.00(3)
X	92	F	V	V::100.00(3)
X	93	F	L	L::100.00(3)
X	94	F	H	H::100.00(3)
X	95	F	K	K::100.00(3)
X	96	F	R	R::100.00(3)
X	97	F	T	T::100.00(3)
X	98	F	L	L::100.00(3)
X	99	F	G	G::100.00(3)
X	100	F	L	L::100.00(3)
X	101	F	S	S::100.00(3)
X	102	F	V	V::66.67(2) A::33.33(1)
X	103	F	M	M::100.00(4)
X	104	F	S	S::100.00(4)
X	105	F	T	T::100.00(4)
X	106	F	T	T::100.00(4)
X	107	F	D	D::100.00(4)
X	108	F	L	L::100.00(4)

X	109	F	E	E::100.00(4)
X	110	F	A	A::100.00(4)
X	111	F	Y	Y::100.00(4)
X	113	F	K	K::100.00(4)
X	114	F	D	D::100.00(4)
X	115	F	C	C::100.00(4)
X	116	F	L	L::100.00(4)
X	118	F	K	K::100.00(4)
X	119	F	D	D::100.00(7)
X	120	F	W	W::100.00(7)
X	121	F	E	E::100.00(7)
X	122	F	E	E::100.00(7)
X	123	F	L	L::57.14(4) S::42.86(3)
X	124	F	G	G::100.00(7)
X	125	F	E	E::100.00(2)
X	126	F	E	E::100.00(4)
X	127	F	T	T::50.00(2) I::50.00(2)
X	128	F	R	R::100.00(4)
X	129	F	L	L::100.00(4)
X	130	F	M	M::75.00(3) *:25.00(1)
X	131	F	I	I::75.00(3) L::25.00(1)
X	133	F	V	V::100.00(4)
X	134	F	L	L::100.00(4)
X	135	F	G	G::100.00(4)
X	136	F	G	G::100.00(4)
X	137	F	C	C::100.00(4)
X	138	F	R	R::100.00(4)
X	139	F	H	H::100.00(4)
X	140	F	K	K::100.00(4)
X	141	F	L	L::100.00(4)
X	142	F	V	V::100.00(4)
X	143	F	C	C::100.00(4)
X	144	F	A	A::100.00(4)
X	145	F	P	P::100.00(4)
X	146	F	A	A::100.00(4)
X	147	F	P	P::100.00(4)
X	148	F	C	C::100.00(3)
X	149	F	N	N::100.00(3)
X	152	F	T	T::100.00(3)
X	153	F	S	S::100.00(3)
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C	1	F	M	M::100.00(1)
C	2	F	D	D::100.00(1)
C	3	F	I	I::100.00(1)
C	4	F	D	D::100.00(1)
C	5	F	P	P::100.00(1)
C	6	F	Y	Y::100.00(1)
C	7	F	K	K::100.00(1)
C	8	F	E	E::100.00(1)
C	10	F	G	G::100.00(3)
C	11	F	A	A::100.00(3)
C	12	F	S	S::66.67(2) T::33.33(1)

C	13	F	V	V::100.00(3)
C	14	F	E	E::100.00(3)
C	15	F	L	L::100.00(3)
C	16	F	L	L::100.00(3)
C	17	F	S	S::100.00(3)
C	19	F	L	L::100.00(3)
C	20	F	P	P::100.00(3)
C	21	F	S	S::100.00(3)
C	22	F	D	D::100.00(3)
C	25	F	P	P::100.00(3)
C	26	F	S	S::100.00(3)
C	27	F	V	V::100.00(2)
C	28	F	R	R::100.00(2)
C	29	F	Q	Q::100.00(2)
C	30	F	L	L::100.00(2)
C	31	F	L	L::100.00(2)
C	32	F	D	D::100.00(2)
C	33	F	T	T::100.00(2)
C	34	F	A	A::100.00(2)
C	35	F	S	S::100.00(2)
C	36	F	A	A::100.00(2)
C	37	F	L	L::100.00(2)
C	38	F	Y	Y::100.00(2)
C	39	F	R	R::100.00(2)
C	40	F	E	E::100.00(2)
C	41	F	A	A::100.00(2)
C	42	F	L	L::100.00(2)
C	43	F	E	E::100.00(2)
C	44	F	S	S::100.00(2)
C	45	F	P	P::100.00(2)
C	46	F	E	E::100.00(5)
C	47	F	H	H::100.00(5)
C	48	F	C	C::100.00(5)
C	49	F	S	S::100.00(5)
C	50	F	P	P::100.00(5)
C	51	F	H	H::100.00(5)
C	52	F	H	H::100.00(5)
C	53	F	T	T::100.00(5)
C	54	F	A	A::100.00(5)
C	55	F	L	L::100.00(5)
C	56	F	R	R::100.00(5)
C	57	F	Q	Q::100.00(5)
C	58	F	E	E::66.67(2) A::33.33(1)
C	59	F	I	I::100.00(3)
C	60	F	L	L::100.00(3)
C	61	F	C	C::100.00(3)
C	62	F	W	W::100.00(3)
C	63	F	G	G::100.00(3)
C	64	F	E	E::66.67(2) D::33.33(1)
C	65	F	L	L::100.00(3)
C	66	F	M	M::66.67(2) I::33.33(1)

C	67	F	T	T::66.67(2) N::33.33(1)
C	68	F	L	L::100.00(3)
C	69	F	A	A::100.00(3)
C	70	F	T	T::100.00(3)
C	71	F	W	W::100.00(3)
C	72	F	V	V::100.00(3)
C	73	F	G	G::100.00(3)
C	74	F	G	G::66.67(2) A::33.33(1)
C	75	F	N	N::100.00(3)
C	76	F	L	L::100.00(4)
C	77	F	E	E::100.00(4)
C	78	F	D	D::100.00(4)
C	79	F	P	P::100.00(4)
C	80	F	T	T::75.00(3) A::25.00(1)
C	81	F	S	S::100.00(4)
C	82	F	R	R::100.00(4)
C	83	F	D	D::100.00(4)
C	84	F	L	L::100.00(4)
C	85	F	V	V::100.00(4)
C	86	F	V	V::100.00(4)
C	87	F	G	G::75.00(3) S::25.00(1)
C	88	F	Y	Y::100.00(4)
C	89	F	V	V::100.00(4)
C	90	F	N	N::100.00(4)
C	91	F	T	T::100.00(4)
C	92	F	N	N::75.00(3) T::25.00(1)
C	93	F	M	M::80.00(4) V::20.00(1)
C	94	F	G	G::100.00(1292)
C	95	F	L	L::99.85(1375)
C	96	F	K	K::100.00(1388)
C	98	F	R	R::99.86(1386)
C	99	F	Q	Q::100.00(1388)
C	100	F	L	L::99.86(1386)
C	101	F	L	L::100.00(1389)
C	102	F	W	W::100.00(1389)
C	104	F	H	H::100.00(1389)
C	105	F	I	I::99.86(1387)
C	106	F	S	S::100.00(1389)
C	107	F	C	C::99.93(1388)
C	108	F	L	L::99.86(1387)
C	109	F	T	T::100.00(1389)
C	111	F	G	G::100.00(1389)
C	112	F	R	R::99.50(1382)
C	113	F	E	E::99.93(1389)
C	114	F	T	T::100.00(1390)
C	115	F	V	V::99.71(1386)
C	116	F	I	I::100.00(1390)
C	117	F	E	E::100.00(1390)
C	118	F	Y	Y::100.00(1390)
C	119	F	L	L::99.86(1388)
C	120	F	V	V::100.00(1391)

C	121	F	S	S::100.00(1391)
C	123	F	G	G::100.00(1391)
C	124	F	V	V::100.00(1391)
C	125	F	W	W::99.71(1386)
C	126	F	I	I::100.00(1390)
C	127	F	R	R::99.78(1386)
C	128	F	T	T::100.00(1389)
C	129	F	P	P::100.00(1389)
C	130	F	P	P::99.78(1385)
C	131	F	A	A::100.00(1388)
C	132	F	Y	Y::100.00(1389)
C	133	F	R	R::99.86(1386)
C	134	F	P	P::100.00(1388)
C	135	F	P	P::100.00(1388)
C	136	F	N	N::100.00(1388)
C	137	F	A	A::99.71(1384)
C	138	F	P	P::99.86(1386)
C	139	F	I	I::100.00(1388)
C	140	F	L	L::100.00(1388)
C	141	F	S	S::99.86(1385)
C	142	F	T	T::100.00(1372)
C	143	F	L	L::66.67(2) T::33.33(1)
C	144	F	P	P::100.00(3)
C	145	F	E	E::100.00(3)
C	146	F	N	N::66.67(2) T::33.33(1)
C	147	F	T	T::100.00(3)
C	148	F	V	V::100.00(3)
C	149	F	V	V::100.00(3)
C	150	F	R	R::100.00(3)
C	151	F	R	R::100.00(3)
C	152	F	R	R::100.00(3)
C	153	F	G	G::100.00(3)
C	154	F	R	R::100.00(3)
C	155	F	S	S::100.00(3)
C	156	F	P	P::100.00(3)
C	157	F	R	R::100.00(3)
C	158	F	R	R::100.00(3)
C	159	F	R	R::100.00(3)
C	160	F	T	T::100.00(3)
C	161	F	P	P::100.00(3)
C	162	F	S	S::100.00(3)
C	163	F	P	P::100.00(2)
C	164	F	R	R::100.00(2)
C	165	F	R	R::100.00(2)
C	166	F	R	R::100.00(2)
C	167	F	R	R::100.00(2)
C	168	F	S	S::100.00(2)
C	169	F	Q	Q::100.00(1)
C	170	F	S	S::100.00(1)
C	171	F	P	P::100.00(2)
C	172	F	R	R::100.00(2)

C	173	F	R	R::100.00(2)
C	174	F	R	R::100.00(2)
C	175	F	R	R::100.00(2)
C	176	F	S	S::100.00(2)
C	177	F	Q	Q::100.00(2)
C	178	F	S	S::100.00(2)
C	179	F	P	P::100.00(1)
C	180	F	A	A::100.00(1)
C	181	F	S	S::100.00(1)
C	182	F	Q	Q::100.00(2)
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P1	1	F	M	M::99.86(1386)
P1	2	F	P	P::99.86(1386)
P1	3	F	L	L::99.86(1386)
P1	4	F	S	S::100.00(1388)
P1	5	F	Y	Y::99.86(1386)
P1	6	F	Q	Q::99.71(1378)
P1	7	F	H	H::99.93(1371)
P1	8	F	F	F::66.67(2) L::33.33(1)
P1	9	F	R	R::100.00(3)
P1	10	F	R	R::100.00(3)
P1	11	F	I	I::66.67(2) L::33.33(1)
P1	12	F	L	L::100.00(3)
P1	13	F	L	L::100.00(3)
P1	14	F	L	L::100.00(3)
P1	15	F	D	D::100.00(3)
P1	16	F	E	E::66.67(2) D::33.33(1)
P1	17	F	E	E::100.00(3)
P1	18	F	A	A::100.00(3)
P1	19	F	G	G::100.00(3)
P1	20	F	P	P::100.00(3)
P1	21	F	L	L::100.00(3)
P1	22	F	E	E::100.00(3)
P1	23	F	E	E::100.00(3)
P1	24	F	E	E::100.00(3)
P1	25	F	L	L::100.00(3)
P1	26	F	P	P::100.00(3)
P1	27	F	R	R::100.00(2)
P1	28	F	L	L::100.00(2)
P1	29	F	A	A::100.00(2)
P1	30	F	D	D::100.00(2)
P1	31	F	E	E::100.00(2)
P1	32	F	G	G::50.00(1) D::50.00(1)
P1	33	F	L	L::100.00(2)
P1	34	F	N	N::100.00(1)
P1	35	F	R	R::100.00(2)
P1	36	F	R	R::100.00(2)
P1	37	F	V	V::100.00(2)
P1	38	F	A	A::100.00(2)
P1	39	F	E	E::100.00(2)
P1	40	F	D	D::100.00(2)
P1	41	F	L	L::100.00(2)

P1	42	F	N	N::100.00(2)
P1	43	F	L	L::100.00(2)
P1	44	F	Q	Q::100.00(1)
P1	45	F	L	L::100.00(1)
P1	46	F	P	P::100.00(1)
P1	47	F	N	N::100.00(2)
P1	48	F	V	V::100.00(2)
P1	49	F	S	S::100.00(2)
P1	50	F	I	I::100.00(2)
P1	51	F	P	P::100.00(2)
P1	52	F	W	W::100.00(2)
P1	53	F	T	T::100.00(2)
P1	54	F	H	H::100.00(2)
P1	55	F	K	K::100.00(2)
P1	56	F	V	V::100.00(2)
P1	57	F	G	G::100.00(2)
P1	58	F	N	N::100.00(2)
P1	60	F	T	T::100.00(2)
P1	61	F	G	G::100.00(2)
P1	62	F	L	L::100.00(2)
P1	63	F	Y	Y::100.00(2)
P1	64	F	S	S::100.00(2)
P1	65	F	S	S::100.00(2)
P1	66	F	T	T::100.00(2)
P1	67	F	I	I::100.00(2)
P1	68	F	P	P::100.00(2)
P1	69	F	V	V::100.00(2)
P1	71	F	N	N::100.00(2)
P1	72	F	P	P::100.00(2)
P1	73	F	N	N::100.00(2)
P1	74	F	W	W::100.00(2)
P1	75	F	K	K::100.00(2)
P1	76	F	T	T::100.00(2)
P1	77	F	P	P::100.00(2)
P1	78	F	S	S::100.00(2)
P1	80	F	P	P::100.00(2)
P1	81	F	D	D::100.00(2)
P1	82	F	I	I::100.00(2)
P1	83	F	H	H::100.00(2)
P1	84	F	L	L::100.00(1)
P1	85	F	H	H::100.00(1)
P1	86	F	Q	Q::100.00(1)
P1	87	F	D	D::100.00(1)
P1	88	F	I	I::100.00(1)
P1	106	F	R	R::100.00(1)
P1	107	F	L	L::100.00(1)
P1	108	F	Q	Q::100.00(1)
P1	109	F	L	L::100.00(1)
P1	110	F	I	I::100.00(1)
P1	111	F	M	M::100.00(1)
P1	112	F	P	P::100.00(1)

P1	113	F	A	A::100.00(1)
P1	114	F	R	R::100.00(1)
P1	116	F	Y	Y::100.00(1)
P1	117	F	P	P::100.00(1)
P1	118	F	K	K::100.00(1)
P1	119	F	V	V::100.00(1)
P1	120	F	T	T::100.00(1)
P1	121	F	K	K::100.00(1)
P1	122	F	Y	Y::100.00(1)
P1	123	F	L	L::100.00(1)
P1	124	F	P	P::100.00(1)
P1	125	F	L	L::100.00(1)
P1	126	F	D	D::100.00(1)
P1	127	F	K	K::100.00(1)
P1	128	F	G	G::100.00(1)
P1	129	F	I	I::100.00(1)
P1	130	F	K	K::100.00(1)
P1	131	F	P	P::100.00(1)
P1	132	F	Y	Y::100.00(1)
P1	133	F	Y	Y::100.00(1)
P1	134	F	P	P::100.00(1)
P1	135	F	E	E::100.00(1)
P1	136	F	H	H::100.00(1)
P1	137	F	L	L::100.00(1)
P1	138	F	V	V::100.00(1)
P1	139	F	N	N::100.00(1)
P1	140	F	H	H::100.00(1)
P1	141	F	Y	Y::100.00(1)
P1	143	F	Q	Q::100.00(1)
P1	144	F	T	T::100.00(1)
P1	145	F	R	R::100.00(1)
P1	146	F	H	H::100.00(1)
P1	147	F	Y	Y::100.00(1)
P1	148	F	L	L::100.00(1)
P1	149	F	H	H::100.00(1)
P1	150	F	T	T::100.00(1)
P1	151	F	L	L::100.00(1)
P1	152	F	W	W::100.00(1)
P1	153	F	K	K::100.00(1)
P1	154	F	A	A::100.00(1)

Meta data	
Assembly file:	HBV-RYD-53.sam
Annotation file:	/home3/vatt01s/Work/Project-150-HBV/Data/P150-1/Annotation/HBV.anno
Reference file:	KM606753.fa.
User name	ales01a
Hostname	Alpha
Location	/home2/ales01a/HBV/P150-5/HBV-RYD-53
Date/Time	Mon 25 Mar 16:07:25 GMT 2019