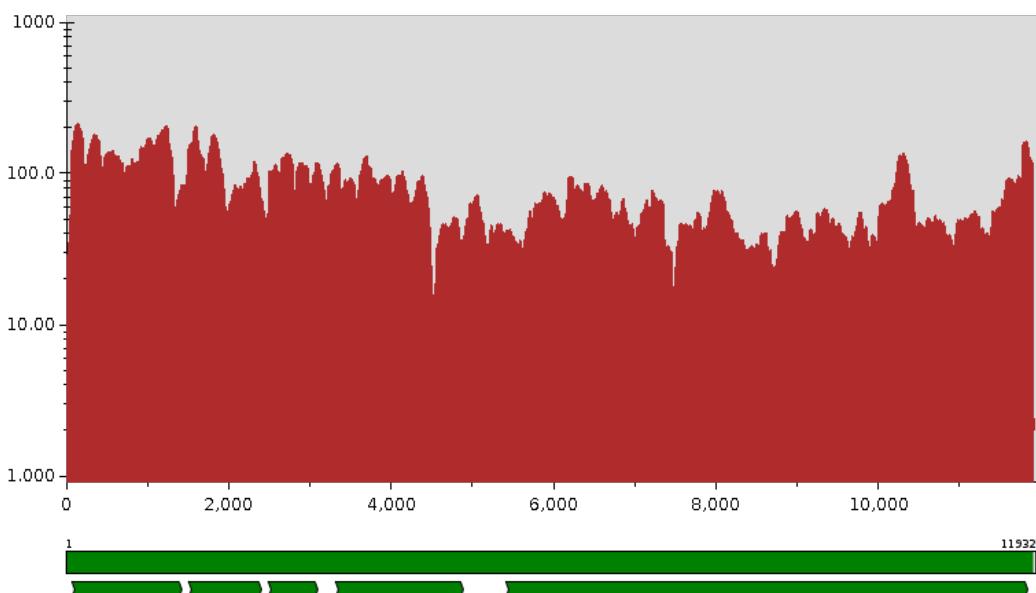


NGS Details (MG-8-RNASeq021-ZymoSeq): Lyssavirus rabies

Assembly

Coverage Length	11909 (1 contig(s))
Depth Of Coverage	71.8
Number Of Reads	6775
Reads Per Million	58.90 rpm (after QC)
Ambiguities	0
Assembly Method	de novo + reference guided assembly
Consensus Caller	Bcf Tools

Coverage Map



Assignment

Type	Lyssavirus rabies (Taxonomy ID: 11292)
Reference Genome	NC_001542.1
NT Identity (%)	80.788
AA Identity (%)	91.0221
Number Of Stop Codons	6
Number Of CDS	5

Alignment

Alignment Score	14610.0 (NT) + 23190.0 (AA) = 37800.0
Concordance (%)	77.0736

Alignment Method

Global, seeded, nucleotide + amino acids (AGA)

Genome Region

Sequence starts at position 1 and ends at position 11909 relative to NC_001542.1 reference sequence.

Alignment Detailed Statistics

	Begin	End	Coverage	Score	Concordance	Matches	Identities	I/D/M/F*	Stop Codons
NT	1	11909	99.8%	14610	61.4%	11901 (99.9%)	9617 (80.7%)	3/8	



9971G>C, 9974G>A, 9993C>T, 9995A>G, 10004T>C, 10019T>C, 10020G>T, 10022C>T, 10025A>G, 10031G>T, 10034C>T, 10037A>G, 10040C>T, 10046T>C, 10049T>C, 10064T>C, 10065C>T, 10070C>T, 10074A>C, 10077G>A, 10079T>A, 10084G>A, 10088C>T, 10091A>C, 10094T>C, 10097G>A, 10108A>C, 10109T>C, 10113C>T, 10115G>A, 10116C>A, 10122T>A, 10127C>T, 10130C>T, 10131T>C, 10133G>A, 10142G>A, 10151C>T, 10157C>T, 10160A>T, 10166T>A, 10175G>T, 10184C>A, 10185A>G, 10193A>G, 10194C>A, 10196A>G, 10199A>G, 10200C>T, 10205A>G, 10214A>G, 10217A>C, 10225G>A, 10226A>G, 10232G>A, 10241G>A, 10256T>G, 10262C>T, 10268T>A, 10273A>G, 10285A>G, 10286C>A, 10293G>A, 10298C>G, 10301T>C, 10304G>A, 10306T>C, 10310A>G, 10319A>G, 10325C>T, 10337A>G, 10346A>G, 10352T>A, 10361A>G, 10367G>A, 10375T>C, 10379G>A, 10385T>G, 10391A>C, 10400C>T, 104045G>A, 10406G>A, 10408G>A, 10410T>C, 10412C>T, 10415G>A, 10421T>G, 10430G>T, 10434T>C, 10454G>A, 10457C>G, 10460T>C, 10463T>C, 10475T>G, 10478G>A, 10487A>G, 10493T>C, 10502T>G, 10505C>T, 10508A>G, 10511T>C, 10512C>T, 10514C>G, 10517C>T, 10523A>G, 10526T>C, 10535G>A, 10544G>C, 10553G>A, 10559C>A, 10562C>A, 10574A>G, 10586T>A, 10595C>T, 10598C>T, 10601G>T, 106013T>C, 10617C>T, 10619G>A, 10625T>A, 10628C>A, 10637T>C, 10641C>T, 10646T>C, 10649T>C, 10652A>G, 10664G>C, 10667A>G, 10671A>G, 10676T>C, 10680G>A, 10688A>G, 10691G>A, 10692A>G, 10694A>T, 10721G>T, 10724C>T, 10730G>A, 10732G>C, 10740G>A, 10742T>C, 10745C>A, 10750A>G, 10751A>G, 10763A>G, 10770A>G, 10774A>G, 10775G>T, 10778C>A, 10781C>T, 10787C>T, 10793C>T, 10799T>C, 10814A>G, 10817T>C, 10832T>A, 10841G>A, 10850G>A, 10862T>C, 10867C>T, 10868A>G, 10869T>A, 10874T>C, 10883A>T, 10886A>G, 10889T>C, 10898C>T, 10913G>T, 10916T>C, 10922A>T, 10931A>G, 10932A>G, 10939A>G, 10940G>A, 10943T>G, 10952C>T, 10955G>A, 10958A>C, 10967C>T, 10970C>T, 10979A>T, 10982G>A, 10985T>C, 10988C>A, 10991C>T, 10994A>G, 10995G>A, 10996T>C, 10997A>G, 11000T>C, 11009T>C, 11010T>C, 11021C>A, 11027T>C, 11028C>A, 11036C>A, 11042A>G, 11051T>C, 11055A>C, 11063T>A, 11066G>A, 11069C>T, 11081C>T, 11084C>T, 11087T>C, 11099C>T, 11105G>A, 11108A>G, 11114T>C, 11129G>A, 11132T>C, 11147T>C, 11150T>C, 11156G>A, 11159C>T, 11162C>T, 11165G>A, 11168T>C, 11171C>G, 11174G>A, 11177A>G, 11186T>A, 11189A>T, 11192A>G, 11201A>T, 11213T>C, 11216G>A, 11228T>C, 11229C>T, 11231G>A, 11249A>G, 11252T>C, 11255T>C, 11258A>G, 11261C>G, 11267G>A, 11273G>A, 11282T>A, 11286T>C, 11288A>G, 11292A>C, 11294G>A, 11301C>T, 11312G>T, 11313G>T, 11339T>C, 11349A>G, 11354C>G, 11357C>T, 11360C>T, 11363T>C, 11366C>G, 11372C>G, 11373C>T, 11375A>G, 11377C>T, 11384C>T, 11387G>A, 11390C>T, 11396A>G, 11399G>T, 11415C>T, 11420G>A, 11426C>T, 11429C>T, 11434T>C, 11438C>T, 11441T>C, 11444T>C, 11453T>C, 11454C>T, 11459T>C, 11465T>C, 11471T>A, 11474T>C, 11477C>G, 11478C>T, 11480T>C, 11486C>T, 11489A>G, 11498C>T, 11501C>T, 11502C>T, 11516T>C, 11528C>T, 11534A>G, 11537G>A, 11540A>G, 11541G>A, 11545T>C, 11548T>A, 11549A>G, 11554A>G, 11555C>T, 11558T>C, 11567T>C, 11580A>G, 11582C>T, 11597C>T, 11609C>T, 11612T>C, 11615T>C, 11630G>C, 11649T>C, 11651G>C, 11666G>A, 11672T>C, 11681C>T, 11684C>T, 11687C>A, 11687G>A, 11693C>A, 11694A>G, 11696G>A, 11702A>G, 11706G>A, 11708A>G, 11711A>G, 11712G>A, 11714G>A, 11717A>G, 11719G>A, 11720A>G, 11728A>G, 11729T>A, 11730A>G, 11741G>A, 11753A>G, 11756G>C, 11757G>A, 11759T>C, 11762C>T, 11768T>C, 11776C>T, 11780A>T, 11781C>T, 11786C>T, 11789C>T, 11792C>T, 11796C>T, 11798G>A, 11800G>A, 11801C>A, 11803T>C, 11804C>T, 11806G>A, 11807A>G, 11808T>C, 11813C>T, 11814T>C, 11816G>A, 11818A>G, 11820C>A, 11821C>A, 11823G>A, 11824C>T, 11825C>G, 11826C>A, 11828T>G, 11829G>A, 11834G>A, 11840T>C, 11842T>G, 11843G>A, 11849T>C, 11851T>C, 11852T>C, 11853T>C, 11864A>G, 11872A>G, 11874A>T, 11877T>A, 11878G>T, 11886A>G, 11891T>C, 11898G>A

CDS

	Begin	End	Coverage	Score	Concordance	Matches	Identities	I/D/M/F*	Stop Codons
NT	1	11909	99.8%	14610	61.4%	11901 (99.9%)	9617 (80.7%)	3/8	
Codon mutations:									
	CGT5CGC (2510T>C), GTG8GTA (2519G>A), AAA9AAG (2522A>G), AAT10AAC (2525T>C), TGC11TGT (2528C>T), AGG12AGA (2531G>A), GAC13GAT (2534C>T), GAG14GAA (2537G>A), GAC15GAT (2540C>T), AAA18AAG (2549A>G), TCT20TC (2555T>C), CCC21TC (2556C>T), TCA23TC (2564A>G), GCC24GCT (2567C>T), CTG26CCA (2572T>C 2573G>A), GAC28GAT (2579C>T), GAC30GAT (2585C>T), CCT33TTA (2592C>T 2594T>A), CCA34CCC (2597A>C), CCC35CC (2600C>T), CCT36CCA (2603T>A), TAC38TAT (2609C>T), GTC39GTT (2612C>T), AAA42AAG (2621A>G), GAA43GAG (2624A>G), CTT44CTC (2627C>T), AGC46GCG (2631A>G), AAG48AAA (2639G>A), AGG50ATG (2644G>T), AGG51AGA (2648G>A), AAC56AAT (2663C>T), GGG58GAA (2668G>A), GGG59GAA (2669G>A), GTT59GTC (2672T>C), AA60AAG (2675A>G), TGT62TGC (2681T>C), AGC63AGT (2684C>T), CGC64ACA (2687G>A), AAT65AAC (2690T>C), GGT66GCC (2698G>A), TAC67TTA (2696C>T), TC68TCA (2699G>A), TTC69TTT (2702C>T), GGG70AGG (2703G>A), CTG76TTG (2721C>T), AGA77AAA (2725G>A), AT82B2TC (2741A>C), GGG85GGA (2750G>A), CAT87CAA (2756T>A), AGG88AGA (2759G>A), GTC90AGC (2763G>A), GGG91GGA (2768G>A), TTA92TTC (2771A>G), GTA95GTT (2780A>T), GTT96GTC (2783T>C), CTG99TTC (2790C>T), GCT100GCA (2795T>A), GGA103GGA (2804A>G), GCT104GCC (2807T>C), CCT107CCA (2816T>A), AAC111AA (2828C>T), TCC122TT (2861C>T), TCC127TCT (2876C>T), CTT131CTA (2887T>A), CAG140CAA (2891G>A), GAG141GAA (2918G>A), ATC142ATT (2927C>T), ACT143ACC (2924T>C), ATT147GAA (2934A>G), CAG161CAA (2978G>A), TGT162TCC (2981T>C), ATC164ATT (2987C>T), CCG165CAC (2989G>A), AGA167AGG (2996A>G), ATC168A (2999C>T), ATC171ATT (3008C>T), AAC174AA (3017C>T), TCG175TCT (3020G>T), AGA176GG (3021A>C 3023A>G), GCA177GG (3026A>G), GTT187GTT (3027G>T), CT188TCC (3033C>T 3035A>G), TCT189TCC (3035T>C), CTT186CTC (3053T>C), CAG187CAA (3056G>A), TCC191CTT (3068G>T), GAA192GAG (3071A>G), GAC194GAT (3077C>T), GAT196GAC (3083T>C), TCC197TCT (3086C>T), TCT198TCA (3089T>A), CTG199GTA (3090C>G 3092G>A), CTT200CTC (3095T>C), CTA201CTT (3098A>T), TAA203TAG (3104A>G)								
RABVgp4	1	525	100%	3293	86.6%	525 (100%)	451 (85.9%)	0/0/0	1
Protein mutations:									
	V21 (3321G>A 3323T>C), F8L (3339T>C 3341T>G), L12V (3351C>G), V13I (3354G>A 3356T>C), F14S (3385T>C 3387T>C), P15S (3360C>T), F18L (3369T>C 3371T>C), N56S (3484A>G 3485C>T), M17N (3504A>G), T109M (3643C>T 3644A>G), P110S (3645C>T), M121A (3678A>G 3679T>C), H132Q (3713C>A), V152I (3714G>A), H169R (3823A>G 3824C>G), V172I (3831G>A 3833C>T), N177K (3848T>G), S179L (3853C>G 3854A>G), V181I (3858G>A), N201E (3918A>G 3920T>A), P202A (3921C>G 3923G>A), G205E (3931C>A), M206T (3934T>C 3935G>C), R215K (3961G>A), S223G (3986A>G), T225I (3991C>A), K243R (4045A>G 4046A>G), L250P (4065C>T 4066T>C 4067A>G), M262I (4103G>T), N226E (4113A>G 4115T>G), P273S (4134C>T 4136C>T), G274D (4138G>A), H280P (4156A>G 4157C>T), R283H (4165G>A), K349N (4364G>C), R365K (4411G>A), N375D (4420A>G), V408E (4540T>A 4541A>G), N422E (4586A>G 4589C>A), D429N (4602G>A 4604C>T), D433N (4614G>A 4616T>G), H438Y (4629C>A 4641G>A 4643G>T), E444K (4647G>A), R445O (4651G>A), I446V (4653A>G), V449I (4662G>A), V460F (4695G>T 4697A>T), L462M (4701C>A), T468A (4719A>G 4721T>A), M471I (4730G>A), I473T (4735T>C), M477I (4748G>T), W480C (4757G>C), N484K (4769T>A), S486T (4773T>A 4775G>A), P488S (4779C>T 4781T>A), T489I (4783C>T), Q490K (4785C>A 4787A>G), H491Q (4790C>A), N492G (4791A>G 4792A>G), L493P (4795T>C 4796C>T), R494D (4797A>G 4798B>G 4799A>G), G495E (4801G>A), T496S (4803A>T), G497V (4806G>A), E499K (4812G>A 4814G>A), S506K (4834G>A), I509V (4842A>G), S515M (4851D>G 4862A>G), S518N (4870G>A 4871C>T), G523K (4884G>A 4886G>A)								
	GTT2ATC (3321G>A 3323T>C), CTC6C TT (3335C>T), CTG7CTA (3338G>A), TTT8CTG (3339T>C 3341T>G), GTA9GTC (3344A>G), CCC10CCT (3347C>T), CTT11CTC (3350T>C), CTG12TG (3351C>G), GTT13ATC (3356G>A) 3356T>C), TTT14TC (3358T>C 3359T>C), CA151CA (3360C>T), M121A (3678A>G 3679T>C), H132Q (3713C>A), V152I (3714G>A), H169R (3823A>G 3824C>G), V172I (3831G>A 3833C>T), N177K (3848T>G), S179L (3853C>G 3854A>G), V181I (3858G>A), N201E (3918A>G 3920T>A), P202A (3921C>G 3923G>A), G205E (3931C>A), M206T (3934T>C 3935G>C), R215K (3961G>A), S223G (3986A>G), T225I (3991C>A), K243R (4045A>G 4046A>G), L250P (4065C>T 4066T>C 4067A>G), M262I (4103G>T), N226E (4113A>G 4115T>G), P273S (4134C>T 4136C>T), G274D (4138G>A), H280P (4156A>G 4157C>T), R283H (4165G>A), K349N (4364G>C), R365K (4411G>A), N375D (4420A>G), V408E (4540T>A 4541A>G), N422E (4586A>G 4589C>A), D429N (4602G>A 4604C>T), D433N (4614G>A 4616T>G), H438Y (4629C>A 4641G>A 4643G>T), E444K (4647G>A), R445O (4651G>A), I446V (4653A>G), V449I (4662G>A), V460F (4695G>T 4697A>T), L462M (4701C>A), T468A (4719A>G 4721T>A), M471I (4730G>A), I473T (4735T>C), M477I (4748G>T), W480C (4757G>C), N484K (4769T>A), S486T (4773T>A 4775G>A), P488S (4779C>T 4781T>A), T489I (4783C>T), Q490K (4785C>A 4787A>G), H491Q (4790C>A), N492G (4791A>G 4792A>G), L493P (4795T>C 4796C>T), R494D (4797A>G 4798B>G 4799A>G), G495E (4801G>A), T496S (4803A>T), G497V (4806G>A), E499K (4812G>A 4814G>A), S506K (4834G>A), I509V (4842A>G), S515M (4851D>G 4862A>G), S518N (4870G>A 4871C>T), G523K (4884G>A 4886G>A)								
Codon mutations:									
	GTT2ATC (3321G>A 3323T>C), CTC6C TT (3335C>T), CTG7CTA (3338G>A), TTT8CTG (3339T>C 3341T>G), GTA9GTC (3344A>G), CCC10CCT (3347C>T), CTT11CTC (3350T>C), CTG12TG (3351C>G), GTT13ATC (3356G>A) 3356T>C), TTT14TC (3358T>C 3359T>C), CA151CA (3360C>T), M121A (3678A>G 3679T>C), H132Q (3713C>A), V152I (3714G>A), H169R (3823A>G 3824C>G), V172I (3831G>A 3833C>T), N177K (3848T>G), S179L (3853C>G 3854A>G), V181I (3858G>A), N201E (3918A>G 3920T>A), P202A (3921C>G 3923G>A), G205E (3931C>A), M206T (3934T>C 3935G>C), R215K (3961G>A), S223G (3986A>G), T225I (3991C>A), K243R (4045A>G 4046A>G), L250P (4065C>T 4066T>C 4067A>G), M262I (4103G>T), N226E (4113A>G 4115T>G), P273S (4134C>T 4136C>T), G274D (4138G>A), H280P (4156A>G 4157C>T), R283H (4165G>A), K349N (4364G>C), R365K (4411G>A), N375D (4420A>G), V408E (4540T>A 4541A>G), N422E (4586A>G 4589C>A), D429N (4602G>A 4604C>T), D433N (4614G>A 4616T>G), H438Y (4629C>A 4641G>A 4643G>T), E444K (4647G>A), R445O (4651G>A), I446V (4653A>G), V449I (4662G>A), V460F (4695G>T 4697A>T), L462M (4701C>A), T468A (4719A>G 4721T>A), M471I (4730G>A), I473T (4735T>C), M477I (4748G>T), W480C (4757G>C), N484K (4769T>A), S486T (4773T>A 4775G>A), P488S (4779C>T 4781T>A), T489I (4783C>T), Q490K (4785C>A 4787A>G), H491Q (4790C>A), N492G (4791A>G 4792A>G), L493P (4795T>C 4796C>T), R494D (4797A>G 4798B>G 4799A>G), G495E (4801G>A), T496S (4803A>T), G497V (4806G>A), E499K (4812G>A 4814G>A), S506K (4834G>A), I509V (4842A>G), S515M (4851D>G 4862A>G), S518N (4870G>A 4871C>T), G523K (4884G>A 4886G>A)								
RABVgp5	1	2143	100%	13958	93.6%	2143 (100%)	1987 (92.7%)	0/0/0	2
Protein mutations:									
	L2I (5421C>A), E6D (5435G>T), L17S (5467T>C), P21T (5478C>A 5480C>G), T24N (5488C>A), V27I (5496G>A 5498C>T), P46S (5533C>T 5555T>A), R48K (5560G>A), Y61P (5598T>C 5599A>C 5600T>C), F73Y (5635T>A 5636C>T), R74K (5638G>A), Y79C (5653A>G 5654T>C), M93A (5694A>G 5695T>C 5696G>T), L103I (5724T>A), R115K (5761G>A 5762A>G), I117M (5768A>G), T118I (5770C>T 5771A>C), H122R (5783G>T), L136G (5823C>G 5824T>C), E148R (5859G>A 5861G>T), N161G (5898A>G 5899A>T 5900T>G), L170P (5926C>T), K193R (5959A>G), K200R (6016A>G 6017A>G), V205T (6030G>C 6031T>C), I207V (6036G>C 6038C>T), L221S (6078C>T 6079T>C), L222M (6081C>A), S23R (6114A>C), N235G (6120A>G 6121A>G 6122T>C), V259I (6192G>A 6194C>G), Q285W (6272A>C), T218C (6303G>C 6305G>C), T227CT (4134C>T 4136C>T), GAG226G (4157C>A), GAC228G (4162G>A), GAT221AC (3902T>C), ATT228T (3903C>T), CAC175AT (3928C>T), GAT135T (3962C>T), CTC125T (3963C>T), CTC126T (3964C>T), AAC176ATC (3970C>T), AAC177ATC (3971C>T), AAC178ATC (3972C>T), AAC179ATC (3973C>T), AAC180ATC (3974C>T), AAC181ATC (3975C>T), AAC182ATC (3976C>T), AAC183ATC (3977C>T), AAC184ATC (3978C>T), AAC185ATC (3979C>T), AAC186ATC (3980C>T), AAC187ATC (3981C>T), AAC188ATC (3982C>T), AAC189ATC (3983C>T), AAC190ATC (3984C>T), AAC191ATC (3985C>T), AAC192ATC (3986C>T), AAC193ATC (3987C>T), AAC194ATC (3988C>T), AAC195ATC (3989C>T), AAC196ATC (3990C>T), AAC197ATC (3991C>T), AAC198ATC (3992C>T), AAC199ATC (3993C>T), AAC200ATC (3994C>T), AAC201ATC (3995C>T), AAC202ATC (3996C>T), AAC203ATC (3997C>T), AAC204ATC (3998C>T), AAC205ATC (3999C>T), AAC206ATC (4000C>T), AAC207ATC (4001C>T), AAC208ATC (4002C>T), AAC209ATC (4003C>T), AAC210ATC (4004C>T), AAC211ATC (4005C>T), AAC212ATC (4006C>T), AAC213ATC (4007C>T), AAC214ATC (4008C>T), AAC215ATC (4009C>T), AAC216ATC (4010C>T), AAC217ATC (4011C>T), AAC218ATC (4012C>T), AAC219ATC (4013C>T), AAC220ATC (4014C>T), AAC221ATC (4015C>T), AAC222ATC (4016C>T), AAC223ATC (4017C>T), AAC224ATC (4018C>T), AAC225ATC (4019C>T), AAC226ATC (4020C>T), AAC227ATC 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(4116C>T), AAC323ATC (4117C>T), AAC324ATC (4118C>T), AAC325ATC (4119C>T), AAC326ATC (4120C>T), AAC327ATC (4121C>T), AAC328ATC (4122C>T), AAC329ATC (4123C>T), AAC330ATC (4124C>T), AAC331ATC (4125C>T), AAC332ATC (4126C>T), AAC333ATC (4127C>T), AAC334ATC (4128C>T), AAC335ATC (4129C>T), AAC336ATC (4130C>T), AAC337ATC (4131C>T), AAC338ATC (4132C>T), AAC339ATC (4133C>T), AAC340ATC (4134C>T), AAC341ATC (4135C>T), AAC342ATC (4136C>T), AAC343ATC (4137C>T), AAC344ATC (4138C>T), AAC345ATC (4139C>T), AAC346ATC (4140C>T), AAC347ATC (4141C>T), AAC348ATC (4142C>T), AAC349ATC (4143C>T), AAC350ATC (4144C>T), AAC351ATC (4145C>T), AAC352ATC (4146C>T), AAC353ATC (4147C>T), AAC354ATC (4148C>T), AAC355ATC (4149C>T), AAC356ATC (4150C>T), AAC357ATC (4151C>T), AAC358ATC (4152C>T), AAC359ATC (4153C>T), AAC360ATC (4154C>T), AAC361ATC (4155C>T), AAC362ATC (4156C>T), AAC363ATC (4157C>T), AAC364ATC (4158C>T), AAC365ATC (4159C>T), AAC366ATC (4160C>T), AAC367ATC (4161C>T), AAC368ATC (4162C>T), AAC369ATC (4163C>T), AAC370ATC (4164C>T), AAC371ATC (4165C>T), AAC372ATC (4166C>T), AAC373ATC (4167C>T), AAC374ATC (4168C>T), AAC375ATC (4169C>T), AAC376ATC (4170C>T), AAC377ATC (4171C>T), AAC378ATC (4172C>T), AAC379ATC (4173C>T), AAC380ATC (4174C>T), AAC381ATC (4175C>T), AAC382ATC (4176C>T), AAC383ATC (4177C>T), AAC384ATC (4178C>T), AAC385ATC (4179C>T), AAC386ATC (4180C>T), AAC387ATC (4181C>T), AAC388ATC (4182C>T), AAC389ATC (4183C>T), AAC390ATC (4184C>T), AAC391ATC (4185C>T), AAC392ATC (4186C>T), AAC393ATC (4187C>T), AAC394ATC (4188C>T), AAC395ATC (4189C>T), AAC396ATC (4190C>T), AAC397ATC (4191C>T), AAC398ATC (4192C>T), AAC399ATC (4193C>T								

	Begin	End	Coverage	Score	Concordance	Matches	Identities	I/D/M/F*	Stop Codons
NT	1	11909	99.8%	14610	61.4%	11901 (99.9%)	9617 (80.7%)	3/8	
CTC2ATC (5421C>A), CCT4CCA (5429T>A), GAG6GAT (5435G>T), GTC7GTT (5438C>T), CCT11CCC (5450T>C), GAC13GAT (5456C>T), CCA14CCT (5459A>T), ATC15ATT (5462C>T), TTA17TCA (5467T>C), GAA20GAG (5477A>G), CCC21ACG (5478C>A 5480C>G), GGA23GGG (5486A>G), ACC24AAC (5488C>A), CCC25CCT (5492C>T), ACT26ACC (5495T>C), GTC27ATT (5496G>A 5498C>T), TTG31TTA (5510G>A), AGG32AGA (5513G>A), TCT40TCC (5537T>C), TTG42CTA (5541T>C 5543G>A), GAA44GAG (5549A>G), CCT46TCA (5553C>T 5555T>A), AGA48AAA (5560G>A), TTA51TTG (5570A>G), TTA54TTG (5579A>G), GGG57GGA (5588G>A), AGA59AGG (5594A>G), TAT61CCC (5598T>C 5599A>C 5600T>C), CTAA65CTG (5612A>G), TCT72TCC (5633T>C), TCT73TAT (5635T>A 5636C>A), AGA74AAA (5638G>A), GTT75GTC (5642T>C), TAT79TCC (5653A>G 5654T>C), AGC82AAA (5663G>A), TGC85CTT (5670T>C), GCT87TCT (5678C>T), CGA92CGG (5693A>G), ATG93GCT (5694A>G 5695T>C 5696G>T), GCT94GCA (5699T>A), CAG96CAA (5705G>A), TCA97TCT (5708A>T), TCT100TCC (5717T>C), CTC101CTT (5720C>T), TTA103ATA (5724T>A), TAT104TAC (5729T>C), TCC110TCG (5747C>G), AGA115AAAG (5761G>A 5762A>C), GCA118AG (5761G>A 5762A>C), GAC119GAT (5774C>T), GCC121GCT (5780C>T), CAT122CAC (5783T>G), TCG127CTT (5798G>T), GAG131GAA (5810G>A), AGA132AAA (5813G>A), ATT135AAC (5822T>C), CTC136TGC (5823C>T 5824T>G), ACC137ACA (5828G>A), TCA138CT (5831A>T), GGA139GGG (5834A>G), CTG143CTT (5846G>T), GAG155GTA (5889A>G 5890A>G 5900T>G), GTG150GTC (5867G>C), TTA151CTA (5868T>C), TGCA153GT (5876C>T), GAG155GTA (5882G>A), TAT159TAC (5894T>C), ATT161GCG (5898A>G 5899A>G 5900T>G), GGA164GGG (5909A>G), AGC165CGA (5910A>G 5912G>A), CTT167CTG (5918T>C), GGC168GT (5921C>T), AGC170ATA (5926C>T) 5927G>A), TAT171TAC (5930T>C), TAC174TAT (5939C>T), TTG175CTG (5940T>C), TGT177TTT (5948C>T), GTA179GTC (5954A>G), TTA182CTG (5991T>C 5993A>G), TAC183TAT (5966C>T), CTAG187TTG (5976C>T 5978A>G), GAC188GAT (5981C>T), GAA191GAG (5990A>G), GAA192GAG (5993A>G), AAG193AGG (5995A>G), ATC195ATT (6002C>T), TTA198CTA (6009T>C), AAA200AGG (6016A>G 6017A>G), GFT205ACA (6030A>T 6031T>G 6032G>A), TGA212GTC (6053A>C), TCT214TCTT (6056C>T), CTG221TCG (6078C>T 6079T>C), CTG222ATG (6081C>T), ATC223ATT (6086C>T), ACA225ACG (6092A>C), GAC226GAT (6098C>T), GTT229GTA (6104T>A), AGC233GCT (6111A>C), TCC234CT (6119C>T), ATT235GCC (6120A>G 6121A>C) 6122T>C), CTT237CTC (6128T>C), GAC239GAT (6134C>T), TCA242TAT (6143C>T), CTT244CTC (6149T>C), AAA247AAC (6158A>C), CTG249CTC (6164T>C), CGC253GCA (6176C>A), TCA256CT (6185C>T), TTG257CTA (6186T>C), GTG259ATA (6192G>A 6194C>T), TTA260CTT (6195T>C 6197A>T), CCC263CT (6206C>T), GAG265GAA (6212C>A), CGA267AGG (6216C>A 6218A>G), TAC288TAT (6221C>T), TTG272CTG (6231T>C), CTA276CTG (6245A>G), TGC277TGT (6248C>T), CTG279CTA (6254G>A), TAC280ATC (6261T>C), GTC282GCG (6263T>G), CAA285CAT (6272A>T), TTG287TTA (6278G>A), TCT288CTC (6281T>C), GGA291GGG (6290A>G), CTC293CTT (6296C>T), GGC294GTT (6299C>T), TTG301CTG (6318T>C), GTC305CTG (6332C>G), GTG306GTA (6335G>A), AGA312AGG (6335A>G), GAA315AA (6336G>A), TTG323CTA (6384T>C 6386G>A), TTT326TTT (6395T>C), CTC327CCG (6398T>G), GAC332GAT (6413C>T), GTA334GTT (6419A>G), AGT335GTT (6420A>G), CTC337CTT (6428C>T), GAA338GAG (6431A>G), GAG339GGA (6433A>G 6434G>A), ACG340ACA (6437G>A), TTC431TTT (6440C>T), TCC343CTT (6444T>C 6446C>T), TTG44AAGT (6447T>A), AGA346AAA (6454G>A), AGC347AGA (6458G>A), TTG349TTC (6464T>C), AGG350AG (6465A>C) 6466G>A), GTC351ACT (6468G>A), CTG352CTA (6473G>A), GAT353GAC (6476T>A), CTA359GAC (6494T>C), TTG361TTA (6500G>A), GTT362GTC (6503T>C), CTG364GTA (6509G>A), TAT365TAC (6512T>C), GGC366GGA (6515C>A), CGG372GGA (6533G>A), CAC373CAT (6536C>T), CCA374CTC (6539A>T), TA1378AT (6551T>C), CGA379AGA (6552A>G), GGT381GGA (6560T>A), CTG382TTC (6566A>T), TCA383CT (6566A>T), AAC384AG (6569A>G), CAG388CAA (6581G>A), GTT389GTC (6584T>C), ATT391CTC (6588A>C 6590T>C), AAAG392AAC (6593A>G), AAA393AGG (6596A>G), JAT396GAC (6605T>C), TCC398TCT (6611C>T), TAC399TAT (6614C>T), TGC402TGT (6623C>T), TTA403TTG (6626A>G), AGC405AGT (6632C>T), CT4040TCTG (6638A>T), AGG409AGA (6644G>A), CT412CTC (6653T>C), AGA413AGG (6656A>G), GGT415GGA (6662T>C), ATC424CTC (6689G>A), TCT428CTC (6699T>C), CTA429CTT (6704A>T), GCC430CTG (6705G>C), CGA431AAA (6708C>A 6709G>A), TTG435CTG (6720T>C), ACT436ATT (6724C>T), ATC439ATA (6734C>A), AAA440AAC (6737A>G), CCA445CTT (6752A>T), ATT449GTA (6762A>G), TTG647A-T, AGT452TAA (6773G>A), GTG453GTA (6776G>A), GGG454GTT (6779G>T), ACA456AAC (6785A>C), CAC458CAT (6791C>T), AGC463AAC (6806G>C), CAA464CAG (6809A>G), ATC465ATT (6812C>T), TTT466TTC (6815T>C), ATT468ATC (6821C>T), AGA470GAC (6827A>G), JAT473GAC (6836T>C), TCA475TCT (6842A>T), TTG478CTA (6849T>A 6851G>A), CAT483CAC (6869T>C), TCT484TCC (6869T>C), AGC488AAC (6881G>A), GCT491GCA (6890T>A), TCT492TCA (6893T>A), CTG494TTC (6897C>T), GAA496GAC (6905A>G), CGA498AGA (6909C>A), GGG499GGA (6914G>A), CTC501CCA (6920T>A), PTT502GTA (6923T>A), CCT503CCC (6926T>C), AAA506AAC (6935A>G), GTT507GTC (6938T>C), AGC510ACA (6947G>A), CGC511GCT (6950C>A), CTG512CTC (6953G>C), TCT513TCA (6956T>A), AGA514AAA (6959G>A), CCG515CCT (6962G>T), ATT518AAC (6971C>T), CGM520AGA (6975C>A), GAG521GAA (6980G>A), CTG523CT (6986G>A), CTC528CTT (7001C>T), GGA530GGG (7007A>G), CCA532CCG (7013A>G), GAT533GAC (7016T>C), GAC535GAT (7022C>T), ATT538ATC (7031T>C), AAG541AAA (7040G>A), CCA542CTC (7043A>T), CGG545AGG (7050C>A), GAA546AG (7055A>G), TTG547TTA (7058G>A), TTG553TTT (7067C>T), CT556TTG (7083C>T 7085A>G), TCA558TCC (7091A>C), TCA561CTG (7100A>G), AGA562AGG (7103A>G), ACT568ACA (7121T>A), GAA569GAG (7124A>G), AAA570AAC (7125A>T), AGA574TAT (7129C>T), TAC575TAT (7142C>T), ATC576ATA (7145C>T), GAC581GAT (7160C>T), CGC582GCA (7163G>A), TCG583TGT (7164C>T), AAC588ATA (7181C>T), AGA589AAA (7190G>A), TTT593TTC (7196T>C), AAC591AGG (7199A>G), AGG599AGA (7214G>A), ACC601ACT (7220C>T), CAAC603AG (7226A>G), CTG606TTA (7233C>T 7235G>A), GAC607GAT (7265C>T), GAA620GAG (7277A>G), AAC624ATA (7289C>T), CAT625CAG (7292T>C), AGA627AGG (7298A>G), TTA628CTG (7299T>C 7301A>G), TCA630TCT 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nucleoprotein N (NP_056793.1)	1	451	100%	2959	95.2%	451 (100%)	428 (94.9%)	0/0/0	1
Protein mutations:									
C40S (188T>A), T42I (195C>T 196T>C), V56I (236G>A), C59G (245T>G 247C>A), S61N (252G>A 253C>T), T84V (320A>G 321C>T), E87D (331A>T), V95L (353G>T), K99R (366A>G 367A>G), G106D (387G>A), E110D (400G>C), K112R (405A>G), D115N (413G>A 415T>C), P135S (473C>T 475T>G), S157N (640G>A), V182I (614G>A 616G>A), I257L (639A>C), A32T (1064G>A), Q367K (1169C>A), D378E (1204C>G), V379A (1206T>C 1207A>T), G397S (1259G>A), I410M (1300A>G)									
Codon mutations:									
CAG13CAA (109G>A), GTC15GTT (115C>T), GAG20GAA (130G>A), ATC22ATT (136C>T), GTG23GTA (139G>A), GAT24GAC (142T>C), CCT31CCA (163T>A), GCC32GCT (166C>T), AAA37AAG (181A>G), TGT40AGT (188T>A), ACT42ATC (195C>T 196T>C), CTA43TTA (197C>T), CCC47CCG (211C>G), CAT48GAC (214T>C), TTA49RTT (217A>G), AAT50AAC (220T>C), GCA52GCT (226A>T), AAG54AAA (232G>A), GTT56ATT (236G>A), TCA58TCC (244A>C), TCG59GGA (245T>A 247C>A), AGC61AAT (252G>A 253C>T), GCG62GCA (256C>A), AAA64AAG (262A>G), GAT66GAC (268T>C), CCT67CC (271T>C), GAC68GAT (274C>T), TGT71TCG (283T>C), TCC72CTC (286C>T), TTG74CTA (290T>C 292G>A), GCG75GCA (295G>A), GCG76GCC (298G>C), TTT80TTC (310T>C), GGG83GGA (319G>A), ACA84GTA (320A>G 321C>T), TG86TGC (325T>C), CCG86CCC (328G>C), GAA87GAT (331A>T), GTG95TTG (353G>T), ATT96ATA (358T>A), AGA99AGG (366A>G), ACC104AC (382C>A), CCA105CC (385A>C), GTC106GAT (387G>A), CTG108CTT (394G>T), GAG110GAC (400G>C), AAA112AGA (405A>G), CTC113GCA (409T>A), GAT115AC (413G>A 415T>C), GT1618GTC (418A>G), GAA117GAG (421A>G), CGT122CTA (436G>A), GGA124GGG (442A>G), GGC125GTT (445C>T), AGC127GAG (451A>G), CTC128TTC (452C>T), AAC129ACT (457A>G), GTC134GTT (472C>T), CCT135CTG (473C>T 475T>C), GAG136GAA (478G>A), GCG138GCA (484G>A), CCT139TCT (487C>T), TTA140TTG (490A>G), GTC141GTT (493C>T), CTC144CTT (502C>T), CCT154CTC (532C>T), GGG155GGA (535G>A), CAA156CAG (538A>G), AGC157AAC (540G>A), ACT158ACC (544T>C), GTG159GAT (547C>A), AAC160AAT (550C>T), ATT161AT (553T>C), ATT165ATC (565T>C), GCA166GCT (568A>T), GAC167GAT (571C>T), AGC168AGA (574A>G), TTT173TC (589T>C), CCT177CCC (601T>C), GTT179GTA (607T>A), AAA180AAG (610A>G), GTG182ATA (614G>A 616G>A), CAC184CT (622C>T), ACT186AC (628T>C), CTA187TTG (629C>T 631A>G), ACT190ACC (640T>C), TGT194TG (652T>C), GCT195GCC (655T>C), ATT196AAC (658T>C), ACT199ACC (667T>C), TCT205TT (685T>C), TTG206TTA (688G>C), GCA207GCA (691C>A), GGA208GGG (694A>G), TAT210TAC (700T>C), GAC211GAT (703C>T), CGG216CGA (718G>A), ACT220CTG (730A>G), GCA223GCG (739A>G), ATC224ATT (742C>T), GTG226GTA (748G>A), TGT236GTC (778T>C), GGA228GGG (784A>G), TCA241TTC (783A>G), ACT243AAC (789T>C), TTC245TTC (805C>T), AAA247AAG (811A>G), ACT249ATA (817C>A), ACC252ACT (826C>T), GCT253GCG (829T>C), GAG255GAA (835G>A), ATA257CTA (839A>C), CTAG258CTG (844A>G), AAC263AAA (859G>A), ATT256TTC (865T>C), GAG268GAA (874G>A), AGA271AGG (883A>G), CCT257CCG (895A>T), GCA278GCA (910T>A), TCT284TCC (922T>C), CCT286TTT (928C>T), CCT288CAT (934C>T), TCA292TTG (944C>T), GGT294CTG (950T>C), AAA297AAG (961A>G), CTC299CCG (967G>T), TAT300TC (970T>C), GTC304GCA (982T>A), ATT310AAC (1000T>C), TTT314TTC (1012T>C), GTA315GTT (1015A>T), TGC317TGT (1021C>T), GTC322GTC (1036C>G), AGA323AGG (1039A>G), TCC324TCT (1042C>T), ACG328ACA (1054G>A), ATT330ATC (1060T>C), GCT334GTC (1072T>C), CCT335CCG (1073C>T), CTAG341CTT (1093A>T), GGC343GG (1099C>T), CGT345TTG (1103C>T), GGA346GGG (1108A>G), CAAG384GAG (1114A>G), GAC368GAG (1174A>G), TAC369TAT (1177C>T), TCC350TTT (1120C>T), GGG351GGA (1123G>A), ACA354ACT (1132A>T), GAA356GAG (1138A>G), AGA361AGG (1153A>G), CAAG367AAA (1169C>A), GCA368GAG (1174A>G), TAC369TAT (1177C>T), GAG370GAA (1180G>A), GCG371GCA (1183G>A), CGT374TTG (1190C>T), GAC378GAG (1204C>T), GTA379GCT (1206T>C 1207A>T), GCA380GCT (1210A>T), CTG381TTG (1211C>T), GAT384GAC (1222T>C), ACT386AAC (1228T>C), AAC388AAT (1234C>T), GAC390GAT (1240C>T), TCA396TCT (1258A>T), GGT397AGT (1259G>A), GAA398GAG (1264A>G), AGA400AGG (1270A>G), CCG402CCT (1276G>T), GAA403GAG (1279A>G), GCT404GCA (1282T>A), TAT406TAC (1288T>C), CGA408AGG (1292C>A 1294A>G), ATA410ATG (1300A>G), GGA413GGG (1309A>G), CGA415AGA (1313C>T), TCG419CTA (1327G>A), CGA422AGG (1334C>A), TCA426TGC (1348A>G), GTC427GTA (1351C>T), CGT434GCG (1372T>C), CCT435CCT (1375A>T), AAC436AAT (1378C>T), GCC439GCT (1387C>T), CTA442TTG (1394C>T 1396A>G), AAC443AAT (1399C>T), TAT446TAC (1408T>C), TCA450TCG (1420A>G)									
phosphoprotein M1 (NP_056794.1)	1	298	100%	1621	82.4%	298 (100%)	244 (81.9%)	0/0/0	1
Protein mutations:									
N29S (1598A>T 1599A>C), E42D (1639A>T), N48S (1656A>G), G54K (1673G>A 1674G>A 1675G>A), H57Q (1684C>A), D60N (1691G>A), G61E (1695G>A), K62R (1698A>G), S63P (1700T>C 1702G>A), P64S (1703C>T 1705C>T), N65S (1706A>G 1707A>G), P66L (1710C>T 1711T>C), V72A (1728T>C 1729G>A), G75S (1736G>A), Y77C (1743A>G), R78Q (1746G>A 1747A>G), G86A (1770G>C 1771A>G), S90A (1781A>G 1782G>C 1783C>T), I104M (1825G>A), Q107R (1833A>G), I108M (1837A>G), T121A (1874A>G 1876C>G), A130T (1901G>A 1903G>A), V131A (1905T>C), N135S (1917A>G 1918C>T), P137S (1922C>T 1924A>G), S140P (1931T>C 1933T>C), E142K (1937G>A 1939G>A), S145A (1946T>G 1948A>C), T149A (1958A>G), G150T (1961G>A 1962G>C), T158V (1985A>G 1986C>T), P159S (1988C>T), T160A (1991A>G 1993T>C), S166N (2010G>A), S168P (2015T>C 2017C>A), A171T (2024G>A), R172N (2028G>A 2029G>C), T189A (2078A>G), L195P (2097T>C), E198D (2107G>T), L223F (2180C>T), A241S (2234G>T), G246S (2249G>A 2251T>C), T248I (2256G>C), R252Q (2268G>A 2269T>A), K256R (2280A>G), L257I (2282C>A), S280P (2351T>C 2353C>T), N281D (2354A>G), S284N (2364G>A), T295S (2396A>T), S296F (2400C>T), C297L (2402T>C 2403G>T)									

	Begin	End	Coverage	Score	Concordance	Matches	Identities	I/D/M/F*	Stop Codons
NT	1	11909	99.8%	14610	61.4%	11901 (99.9%)	9617 (80.7%)	3/8	
L2I (5421C>A), E6D (5435G>T), L17S (5467T>C), P21T (5478C>A), T24N (5488C>A), V27I (5496G>A 5498C>T), P46S (5553C>T 5555T>A), R48K (5560G>A), Y61P (5598T>C 5599A>C 5600T>C), F73Y (5635T>A 5636C>T), R74K (5638G>A), Y79C (5653A>G 5654T>C), M93A (5694A>G 5695T>C 5696G>T), L103I (5724T>A), R115K (5761G>A 5762A>G), I117M (5768A>G), T118I (5770C>T 5771A>C), H122Q (5783T>G), L136C (5823C>T 5824T>G), E148N (5859G>A 5861G>T), N161G (5898A>G 5899A>G 5900T>C), T170I (5926C>T 5927G>A), K193R (5959A>G), K200R (6016A>G 6017A>G), V205T (6030G>A 6031T>C 6032G>A), I207V (6036A>G 6038C>T), L221S (6078C>T 6079T>C), L222M (6081C>A), S23R (6114A>C), N235G (6120A>G 6121A>G 6122T>C), V259I (6192G>A 6194C>T), Q285H (6272A>T), S335G (6420A>G), E339G (6433A>G 6434G>A), S343P (6444T>C 6446C>T), C344S (6447T>A), R346K (6454G>A), R350Q (6465A>C 6466G>A), A351T (6468G>A), I391L (6588A>C 6590T>C), F428L (6699T>C), A430S (6705G>T 6707C>G), R431K (6708C>A 6709G>A), T436I (6724C>T), I449V (6762A>G 6764T>A), R672W (7431C>T), Q675R (7441A>G), A681M (7458G>A 7459C>T), I717T (7567T>C), V724I (7587G>A), Q745P (7650C>A 7651A>G), F760L (7695T>C 7697T>C), V766I (7713G>A), V815I (7860G>A), E882D (8063G>C), S883N (8065G>A 8066C>T), H933N (8214C>A), I937V (8226A>G), R970I (8326G>A), T1018K (8470C>A), K1059R (8593A>G), K1063R (8605A>G), S1078N (8650G>A 8651T>C), G1089R (8682G>A), E1096A (8704A>C), T1113A (8814A>G), A1136T (8823G>A), T1137A (8826A>G 8828A>C), G1138E (8830G>A), G1140E (8836G>A 8837C>G), V1144I (8847G>A 8849T>A), Q1154P (8878A>C), C1158S (8890G>C 8891C>G), T1159R (8893C>G 8894G>A), D1206N (9033G>A 9035T>C), V1218M (9069G>A), S1219A (9072T>C), Q1276H (9245A>T), K1279R (9253A>G 9254G>A), R1307K (9337G>A 9338A>G), Q1316R (9364A>G), R1319K (9373G>A), I1334V (9417A>G), E1336D (9426G>T), K1342R (9442A>G), Q1356R (9483C>A 9484A>G 9485G>A), R1357K (9487G>A 9488G>A), I1361V (9498A>G 9500C>T), R1374K (9538G>A), H1378R (9550A>G), G1411S (9648G>A), F1476L (9843T>C 9848T>G), E1478G (9850A>G), I1487V (9876A>G), V1516A (9964T>C), A1535S (10020G>T 10022C>T), V1554I (10077G>A 10079T>A), R1556A (10084G>A 10085A>G), D1564A (10108A>C 10109T>C), L1569M (10122T>A), D1583I (10166T>A), E1586D (10175G>T), D1589I (10184C>A), N1590D (10185A>G), R1603K (10225G>A 10226A>G), D1619G (10273A>G), N1623S (10285A>C 10286C>T), V1626M (10293G>A), V1630A (10306T>C), V1653A (10375T>C), K1663R (10405A>G 10406G>A), R1664K (10408G>A), F1665I (10410T>C 10412C>T), R1749S (10664G>C), N1752A (10671A>G), V1755I (10680G>A), I1759V (10692A>G 10694A>T), R1772K (10732G>A), A1775T (10740G>A 10742T>C), K1778I (10750A>G 10751A>G), K1785E (10770A>G 10772G>A), Q1786R (10774A>G 10775G>T), A1817V (10867C>T 10868A>G), L1818M (10869T>A), N1839D (10932A>G), K1841R (10939A>G 10940G>A), V1860T (10995G>A 10997A>G), E1924D (11189A>T), A1966S (11313G>T), T1987I (11377C>T), P2021S (11478C>T 11480T>C), V2042I (11541G>A), I2043T (11545T>C), L2044Q (11548T>A 11549A>G), N2046S (11554A>G 11555C>T), N2055D (11580A>G 11582C>T), S2091N (11689G>A), K2093E (11694A>G 11696G>A), G2097R (11706G>A 11708A>G), V2099I (11712G>A 11714G>A), R2101K (11719G>A 11720A>G), H2104R (11728A>G 11729T>A), R2105G (11730A>G), E2113D (11756G>T), N2114D (11757A>G 11759T>C), C2128* (11800G>A 11801C>A), I2129T (11803T>C 11804C>T), G2130E (11806G>A 11807A>G), V2131H (11808T>C), W2133R (11814T>C 11816G>A), K2134R (11818A>G), P2135N (11820C>A 11821C>A), A2136M (11823G>A 11824C>T 11825C>G), H2137K (11826C>A 11828T>G), A2138T (11829G>A), V2142G (11842T>G 11843G>A)									
Protein mutations:									

	Begin	End	Coverage	Score	Concordance	Matches	Identities	I/D/M/F*	Stop Codons
NT	1	11909	99.8%	14610	61.4%	11901 (99.9%)	9617 (80.7%)	3/8	
CTC2ATC (5421C>A), CCT4CCA (5429T>A), GAG6GAT (5435G>T), GTC7GTT (5438C>T), CCT11CCC (5450T>C), GAC13GAT (5456C>T), CCA14CCT (5459A>T), ATC15ATT (5462C>T), TTA17TCA (5467T>C), GAA20GAG (5477A>G), CCC21ACG (5478C>A 5480C>G), GGA23GGG (5486A>G), ACC24AAC (5488C>A), CCC25CCT (5492C>T), ACT26ACC (5495T>C), GTC27ATT (5496G>A 5498C>T), TTG31TTA (5510G>A), AGG32AGA (5513G>A), TCT40TCC (5537T>C), TTG42CTA (5541T>C 5543G>A), GAA44GAG (5549A>G), CCT46TCA (5553C>T 5555T>A), AGA48AAA (5560G>A), TTA51TTG (5570A>G), TTA54TTG (5579A>G), GGG57GGA (5588G>A), AGA59AGG (5594A>G), TAT61CCC (5598T>C 5599A>C 5600T>C), CTAA65CTG (5612A>G), TCT72TCC (5633T>C), TCT73TAT (5635T>A 5636C>A), AGA74AAA (5638G>A), GTT75GTC (5642T>C), TAT79TCC (5653A>G 5654T>C), AGB2AAA (5663G>A), TGA87CTC (5670T>C), GCT87TCT (5678C>T), CGA92CGG (5693A>G), ATG93GCT (5694A>G 5695T>C 5696G>T), GCT94GCA (5699T>A), CAG96CAA (5705G>A), TCA97TCT (5708A>T), TCT100TCC (5717T>C), CTC101CTT (5720C>T), TTA103ATA (5724T>A), TAT104TAC (5729T>C), CCT110TCG (5747C>G), AGA115AAAG (5761G>A 5762A>C), GCA118AG (5761G>A 5762A>C), GAC119GAT (5774C>T), GCC121GCT (5780C>T), CAT122CAC (5783T>G), TCG127CTT (5798G>T), GAG131GAA (5810G>A), AAT135AAC (5813G>A), AAT135AAC (5822T>C), CTC136TGC (5823C>T 5824T>G), ACC137ACA (5828G>A), TCA138CT (5831A>T), GGA139GGG (5834A>G), CTG143CTT (5846G>T), GAG155GA (5882G>A), TAT159TAC (5894T>C), AAT161GCG (5898A>G 5900T>G), GGA164GGG (5909A>G), AGC165CGA (5910A>C 5912G>A), CTT167CTG (5918T>C), GGC168GT (5921C>T), AGC170ATA (5926C>T) 5927G>A), TAT171TAC (5930T>C), TAC174TAT (5939C>T), TTG175CTG (5940T>C), TGT177TTT (5948C>T), GTA179GTC (5954A>G), TTA182CTC (5991T>C 5993A>G), TAC183TAT (5966C>T), CTAG187TTG (5976C>T 5978A>G), GAC188GAT (5981C>T), GAA191GAG (5990A>G), GAA192GAG (5993A>G), AAG193AGG (5995A>G), ATC195ATT (6002C>T), TTA198CTA (6009T>C), AAA200AGG (6016A>G 6017A>G), GFT205ACA (6030A>T 6031T>G), GAA202AGG (6032G>A), TGA212GTC (6053A>C), TCT214TTC (6056A>C), GAC216GAT (6065C>T), CTG221TCC (6078C>T 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(11840T>C), GTG2142GGA (11842T>G 11843G>A)

*: Inserts / Deletes / Misaligned / Frameshifts

Analysis details

This analysis was performed with Pan-viral (2.14.6)