Alignment: C:\Users\Chengyang Ji\Projects\BIEN05006_Midterm\Data\alignment_mafft.fasta Seaview [blocks=10 fontsize=10 A4-landscape] on Sun Dec 29 21:14:52 2019

	1									
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NM_005348.4										
AB590828.1	MPPCSGGDGS	TPPGPSLRDR	DCPAQSAEYP	RDRLDPRPGS	PSEASSPPFL	RSRAPVNWYQ	EKAQVFLWHL	LVSGSTTLLC	LW <mark>K</mark> QPFHVSA	FPVTASLAFR
XM_031001957.1										
XM_008959109.2										
XM_016925810.2										
XM_011991599.1										
XM_024231797.1										
XM_003902284.4										
NM_001283939.1										
NM_001195667.1										
XM_012084012.1										
XM_030930159.1										
XM_017528088.1										
XM_023205645.1										
XM_029237862.1										
XM_022576061.2										
XM_004262408.1										
XM_019952219.1										
XM_030883350.1										
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XM_024131038.2										
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XM_025390940.1										
XM_008064080.1										
XM_011951441.1										
XM_017892251.1										
XM_008578886.1										
XM_012746310.2										

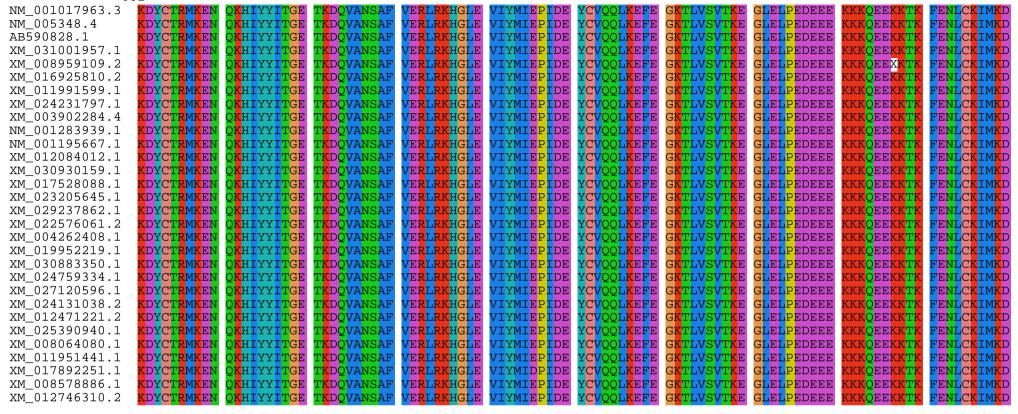
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NM_001017963.3	QSQGAGQHLY	KDLQPFILLR	LLMPEETQTQ	DQPMEEEEVE	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
NM_005348.4			MPEETQTQ	D <mark>OPM</mark> EEEEVE	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
AB590828.1	QSQGAGQHLY	KDLQPFILLR	LLMPEETQTQ	D <mark>OPM</mark> EEEEVE	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_031001957.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLD <mark>SGK</mark> ELHI
XM_008959109.2			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_016925810.2			MPEETQTQ	D <mark>QPM</mark> EEEE <mark>V</mark> E	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_011991599.1			MPEETQTQ	D <mark>QPM</mark> EEEE <mark>V</mark> E	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_024231797.1			MPEETQTQ	D <mark>QPM</mark> EEEE <mark>V</mark> E	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_003902284.4			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
NM_001283939.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
NM_001195667.1			MPEETQTQ	D <mark>QPM</mark> EEEE <mark>V</mark> E	TFAFQAEIAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_012084012.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_030930159.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_017528088.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_023205645.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_029237862.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_022576061.2			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	I SNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_004262408.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_019952219.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_030883350.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_024759334.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LIINTFY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLD <mark>SGK</mark> ELHI
XM_027120596.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_024131038.2			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_012471221.2			MPEETHTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LIINTFY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_025390940.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_008064080.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI
XM_011951441.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLD <mark>SGK</mark> ELHI
XM_017892251.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SNKEIFLREL	ISNSSDALDK	IRYESLTDPS	KLD <mark>SGK</mark> ELHI
XM_008578886.1			MPEETQTQ	D <mark>QPM</mark> EEEEVE	TFAFQA <mark>E</mark> IAQ	LM <mark>SLIINT</mark> FY	SN <mark>K</mark> EIFL <mark>R</mark> EL	ISNSSDALDK	IRYESLTDPS	KLD <mark>SGK</mark> ELHI
XM_012746310.2			MPEETQTQ	D <mark>QPM</mark> EEEE <mark>V</mark> E	TFAFQA <mark>E</mark> IAQ	LM <mark>S</mark> LII <mark>NT</mark> FY	SN <mark>K</mark> EIFL <mark>R</mark> EL	ISNSSDALDK	IRYESLTDPS	KLDSGKELHI

NM_001017963.3	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
NM_005348.4	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
AB590828.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAE <mark>K</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_031001957.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_008959109.2	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_016925810.2	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_011991599.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_024231797.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_003902284.4	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
NM_001283939.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
NM_001195667.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_012084012.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_030930159.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_017528088.1	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_023205645.1	NLI <mark>PNK</mark> QDRT	LIIVD <mark>T</mark> GIGM	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_029237862.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_022576061.2	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_004262408.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAE <mark>K</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_019952219.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_030883350.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_024759334.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAE <mark>K</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_027120596.1	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_024131038.2	NLI <mark>PNK</mark> QDRT	LTIVDTGIGM	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_012471221.2	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAE <mark>K</mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_025390940.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_008064080.1	NLI <mark>PNK</mark> QERT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_011951441.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAK <mark>SGTK</mark> AF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_017892251.1	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_008578886.1	NLIPNKQDRT	L <mark>TIVDTGIGM</mark>	TKADLINNLG	TIAKSGTKAF	MEALQAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVAEK <mark></mark> V	TVITKHNDDE	QYAWESSAGG	SFTVRTDTGE
XM_012746310.2	NLI <mark>PNK</mark> QDRT	L <mark>TIVDTGIGM</mark>	T <mark>K</mark> ADLINNLG	TIA <mark>K</mark> SGT <mark>K</mark> AF	M <mark>EAL</mark> QAGADI	SMIGQFGVGF	Y <mark>S</mark> AYLVA <mark>EK</mark> V	TVITKHNDDE	QYAW <mark>E</mark> SSAGG	SFTVRTDTGE

30	01									
NM_001017963.3	PMGRGTKVIL	HLKEDQTEYL	EERR <mark>IK</mark> E <mark>IV</mark> K	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>K</mark> EEE <mark>K</mark> EKE	EKESEDKPEI	ED <mark>VGS</mark> D-EEE	EKK DGDKKKK
NM_005348.4	PMGRGTKVIL	HLKEDQTEYL	EE <mark>RR</mark> IKEIVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE	EKE <mark>S</mark> EDKPE <mark>I</mark>	ED <mark>VGS</mark> D-EEE	EKK <mark>DGD</mark> KKKK
AB590828.1	PMGRGTKVIL	HLKEDQTEYL	EE <mark>RR</mark> IKEIVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE	EKE <mark>S</mark> EDKPE <mark>I</mark>	ED <mark>VGS</mark> D-EEE	EKK <mark>DGD</mark> KKKK
XM_031001957.1	PMGRGTKVIL	HLKEDQTEYL	EE <mark>RR</mark> IKEIVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE		ED <mark>VGS</mark> DEEEE	EKK <mark>DGD</mark> KKKK
XM_008959109.2	PMGRGTKVIL	HLKEDQTEYL	EE <mark>RR</mark> IKEIVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE		ED <mark>VGS</mark> DEEEE	EKK <mark>DGD</mark> KKKK
XM_016925810.2	PMGRGTKVIL	HLKEDQTEYL	EE <mark>RR</mark> IKEIVK	K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE	EKE <mark>S</mark> EDKPE <mark>I</mark>		EKK <mark>DGD</mark> KKKK
XM_011991599.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE		ED <mark>VGS</mark> DEEEE	EKK <mark>DGD</mark> KKKK
XM_024231797.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE			EKK <mark>DGD</mark> KKKK
XM_003902284.4	PMGRGTKVIL			K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK				EKK <mark>DGD</mark> KKKK
NM_001283939.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE			EKK <mark>DGD</mark> KKKK
NM_001195667.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>k</mark> eee <mark>k</mark> eke			EKK <mark>DGD</mark> KKKK
XM_012084012.1	PMGRGTKVIL	~		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK				EKK <mark>DGD</mark> KKKK
XM_030930159.1	PMGRGTKVIL	HLKEDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>k</mark> eee <mark>k</mark> eke			EKK <mark>DGD</mark> KKKK
XM_017528088.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEEK <mark>EK</mark> E			EKK <mark>DGD</mark> KKKK
XM_023205645.1	PMGRGTKVIL			K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK				EKK <mark>DG</mark> DKKKK
XM_029237862.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>k</mark> eee <mark>k</mark> eke			EKK <mark>DGD</mark> KKKK
XM_022576061.2	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>k</mark> eeek <mark>ek</mark> e			EKK <mark>DGD</mark> KKKK
XM_004262408.1	PMGRGTKVIL	~		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK				EKK <mark>DGD</mark> KKKK
XM_019952219.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>k</mark> eeek <mark>ek</mark> e			EKK <mark>DGD</mark> KKKK
XM_030883350.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>K</mark> EEEK <mark>EK</mark> E			EKKDGDKKKK
XM_024759334.1	PMGRGTKVIL	~		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK				EKK <mark>DGD</mark> KKKK
XM_027120596.1	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL	EERR <mark>IKE</mark> IVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>k</mark> eeek <mark>ek</mark> e		ED <mark>VGS</mark> DEEEE	EKK <mark>DGD</mark> KKKK
XM_024131038.2	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK				EKK <mark>DG</mark> DKKKK
XM_012471221.2	PMGRGTKVIL	~		K <mark>HSQFIGYP</mark> I	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>K</mark> EEEK <mark>EK</mark> E			EKKDGDKKKK
XM_025390940.1	PMGRGTKVIL	~		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>K</mark> EEEK <mark>EK</mark> E			EKKDGDKKKK
XM_008064080.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK		EKESDDKPEI		EKKDGDKKKK
XM_011951441.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	ED <mark>K</mark> EEE <mark>K</mark> EKE			EKKDGDKKKK
XM_017892251.1	PMGRGTKVIL	HLKEDQTEYL	EERRIKEIVK	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	ED <mark>K</mark> EEEK <mark>XK</mark> E		ED <mark>VGS</mark> DEEEE	EKKDGDKKKK
XM_008578886.1	PMGRGTKVIL	HLKEDQTEYL		KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDEAEEK	DE <mark>K</mark> EEEK <mark>EK</mark> E			EKKDGDKKKK
XM_012746310.2	PMGRGTKVIL	HL <mark>K</mark> EDQTEYL	EERR <mark>IK</mark> E <mark>IVK</mark>	KHSQFIGYPI	TLFVEKERDK	E <mark>VS</mark> DDE <mark>A</mark> EEK	EE <mark>K</mark> EEE <mark>K</mark> EKE	E <mark>K</mark> E <mark>S</mark> DD <mark>K</mark> PE <mark>I</mark>	ED <mark>V</mark> GSDEEEE	EKK <mark>DGD</mark> KKKK

NM_001017963.3	KK <mark>IK</mark> EKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	R <mark>ALLFV</mark> PRRA	PFDLFENRKK	KNNIKLYVRR	VFIMDNCEEL
NM_005348.4	KK <mark>IK</mark> EKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMDNCEEL
AB590828.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_031001957.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_008959109.2	KK <mark>IK</mark> EKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMDNCEEL
XM_016925810.2	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_011991599.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_024231797.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_003902284.4	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
NM_001283939.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
NM_001195667.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_012084012.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_030930159.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_017528088.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_023205645.1	KKIKEKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK.	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_029237862.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_022576061.2	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_004262408.1	KKIKEKYIDQ	EELNKTKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK.	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_019952219.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_030883350.1	KK <mark>IK</mark> EKYIDQ	EELNKTKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_024759334.1	KKIKEKYIDQ	EELNKTKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK.	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_027120596.1	KKIKEKYIDQ	EELNKTKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK.	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_024131038.2	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_012471221.2	KKIKEKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK.	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_025390940.1	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_008064080.1	KK <mark>IK</mark> EKYIDQ	EELNKTKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNN I KLYVRR	VFIMD <mark>N</mark> CEEL
XM_011951441.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_017892251.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_008578886.1	KK <mark>IK</mark> EKYIDQ	EEL <mark>NK</mark> TKPIW	TRNPDDITNE	EYGEFYKSLT	NDWEDHLAVK	HFSVEGQLEF	<mark>R</mark> ALLFV <mark>PRR</mark> A	PFDLFENRKK	KNNIKLYVRR	VFIMD <mark>N</mark> CEEL
XM_012746310.2	KK <mark>IK</mark> EKYIDQ	EELN <mark>K</mark> TKPIW	TRNPDDISNE	EYGEFYKSLT	NDWEDHLAV <mark>K</mark>	HF <mark>SVEGQLEF</mark>	R <mark>ALLFV</mark> PRRA	PFDLFENRKK	KNNIKLYVRR	VFIM <mark>DN</mark> CEEL

NM_001017963.3	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VIRKNLV	KKCLELFTEL	AED <mark>KEN</mark> YKKF	YEQFSKNIKI	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
NM_005348.4	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VIRKNLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
AB590828.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_031001957.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_008959109.2	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>REML</mark> QQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	K <mark>LSELLR</mark> YYT	SASGDEMVSL
XM_016925810.2	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_011991599.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_024231797.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_003902284.4	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
NM_001283939.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
NM_001195667.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>K</mark> ENYKKF	Y <mark>EQFSK</mark> NIK <mark>I</mark>	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_012084012.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_030930159.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_017528088.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_023205645.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_029237862.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_022576061.2	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_004262408.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_019952219.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_030883350.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_024759334.1	IPEYLNFIRG	VVDSEDLPLN	ISREMLQQSK	IL <mark>K</mark> VIRK <mark>N</mark> LV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_027120596.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_024131038.2	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	ISREMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_012471221.2	IPEYLNFIRG	VVDSEDLPLN	ISREMLQQSK	IL <mark>K</mark> VIRK <mark>N</mark> LV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_025390940.1	IPEYLNFIRG	VVDSEDLPLN	ISREMLQQSK	IL <mark>K</mark> VIRK <mark>N</mark> LV	KKCLELFTEL	AED <mark>KENYKK</mark> F	YEQFS <mark>K</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_008064080.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>R</mark> EMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_011951441.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>R</mark> EMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_017892251.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>R</mark> EMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_008578886.1	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>R</mark> EMLQQSK	IL <mark>K</mark> VI <mark>RK</mark> NLV	KKCLELFTEL	AED <mark>KENYKK</mark> F	Y <mark>EQFSK</mark> NIKL	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL
XM_012746310.2	IPEYLNFIRG	VVDSEDL <mark>PLN</mark>	IS <mark>R</mark> EMLQQSK	ILKVIRKNLV	KKCLELFTEL	AEDKENYKKF	YEQFS <mark>K</mark> NIK <mark></mark> I	GIHEDSQNRK	KLSELLRYYT	SASGDEMVSL



NM_001017963.3	ILE <mark>KK</mark> VEKVV	VSNRLVTSPC CIVTSTYGW:	ANMERIMK <mark>AQ</mark>	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSS GFS
NM_005348.4	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	ALRDNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
AB590828.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEI <mark>N</mark> 1	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_031001957.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_008959109.2	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_016925810.2	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_011991599.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_024231797.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	: ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKN DK	SVKDLVILLY	ETALLSSGFS
XM_003902284.4	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
NM_001283939.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
NM_001195667.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_012084012.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_030930159.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_017528088.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEI <mark>N</mark> 1	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_023205645.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_029237862.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_022576061.2	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_004262408.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANME <mark>R</mark> IM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY		PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_019952219.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_030883350.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_024759334.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_027120596.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_024131038.2	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_012471221.2	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANME <mark>R</mark> IM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_025390940.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANME <mark>R</mark> IM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY		PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_008064080.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_011951441.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> GY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_017892251.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETTLLSSGFS
XM_008578886.1	IL <mark>EKK</mark> VEK <mark>VV</mark>	VSNRLVTSPC CIVTSTYGW:	' ANMERIM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HLEIN I	PDHSIIETLR	QKAEADKNDK	SVKDLVILLY	ETALLSSGFS
XM_012746310.2	IL <mark>EKK</mark> VE <mark>K</mark> VV	VSN <mark>R</mark> LVTSPC CIVTSTYGW:	' A <mark>NMER</mark> IM <mark>K</mark> AQ	AL <mark>R</mark> DNSTMGY	MAA <mark>KK</mark> HL <mark>EIN</mark> 1	PDHSIIETL <mark>R</mark>	Q <mark>KA</mark> EADKNDK	SVKDLVILLY	ETALLSSGFS

NM_001017963.3	LEDPOTHANE	IYRMIKLGLG	TDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
NM 005348.4	LEDPOTHANR	TYRMIKIGIG	TDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
AB590828.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVDV
XM 031001957.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_008959109.2	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 016925810.2	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 011991599.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 024231797.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 003902284.4	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
NM 001283939.1	LEDPOTHANR	IYRMIKLGLG	TDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
NM 001195667.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_012084012.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 030930159.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 017528088.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 023205645.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 029237862.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 022576061.2	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 004262408.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 019952219.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 030883350.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 024759334.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 027120596.1	LEDPOTHANR	IYRMIKLGLG	IDEDDPTADD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM 024131038.2	LEDPOTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	SSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_012471221.2	LEDPOTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_025390940.1	LEDPOTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	ASAAVTEEMP	PLEGEDDTSR	MEEVD-
XM_008064080.1	LEDPOTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_011951441.1	LEDPQTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	TSAAVTEEMP	PLEGDDDTSR	MEEVD-
XM_017892251.1	LEDPQTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	TSAAVTEEMP	PLEGDDDTSR.	MEEVD-
XM_008578886.1	LEDPQTHANR	IYRMIKLGLG	IDEDD <mark>PTA</mark> DD	SSAAVTEEMP	PLEGDDDTSR.	MEEVD-
XM_012746310.2	LEDPQTHANR	IY <mark>R</mark> MIKLGLG	IDEDD <mark>PTA</mark> DD	TNAAVTEEMP	PLEGDDDTSR	MEEVD-