



B

ENST00000249364	-----MDLRQFLMCLSLCTAFALSKPTEKKDRVHHEPQLSDKVHNDQAQSFYDHDHAF
ENST00000449187	-----MDLRQFLMCLSLCTAFALSKPTEKKDRVHHEPQLSDKVHNDQAQSFYDHDHAF

ENST00000249364	LGAEAEAKTFDQLTPPEESKERLGKIVSKIDGDKDGFVTVDELKDWIKFAQKRWIYEDVERQ
ENST00000449187	LGAEAEAKTFDQLTPPEESKERLGMIVDKIDADKDGFEVTEGELKSWIKHAQKKYIYDNVENQ
	***** **.***.****** .***.***.***.*:**:**.*
ENST00000249364	WKGHDLNEDGLVSWEEYKNATYGYVLDDPDPDDGFNYKQMMVRDERRFKMADKDGDLIAT
ENST00000449187	WQEFDMNQDGLISWDEYRNVTYGTYLDDPDPDDGFNYKQMMVRDERRFKMADKDGDLIAT
	: .:**:**:**:**.*.*** *****
ENST00000249364	KEEFTAFLHPPEEYDYMKDIVVQETMEDIDKNADGFIDLEEYIGDMYSHDGNTDEPEWVKT
ENST00000449187	KEEFTAFLHPPEEYDYMKDIVVQETMEDIDKNADGFIDLEEYIGDMYSHDGNTDEPEWVKT

Figure S3. Mutually exclusive homologous exons for gene CALU

In A, a section of the *CALU* gene model from the Ensembl web pages, with arrows showing the homologous exclusively spliced exons for variants 001 and 002. In fact there are three splice events shown in this image, the homologous substitution, an N-terminal extension, which comes from the extra exon at the 5' end in variants 003 and 005, and which cannot be detected by proteomics data, and a C-terminal substitution that results from skipping the penultimate coding exon in 006 (a C-terminal substitution in protein terms since the frame of the last exon is changed by the exon skip event). In B part of the pairwise alignment between the protein sequences of variants 001 (ENST00000249364) and 002 (ENST00000449187) showing the similarity between the two protein sequences that results from the homologous splicing event. Homologous exon events can also occur with the 5' and 3' exons.