## Figure S1

## **(A)**

	TM1 A.S.	
LmjF28.1400tr	MVADIRVAVYLIVLFVSVALALVSIPTSQLDVVGAACFTYWGYKDNCDNSTYTIPRPLYP	419
LinJ28 V3.1510tr	MVTDIRVAIYLVVLFVSVALVLVSIPTSQLDIVGAACLTYWGYKNNCDNSTYTIPRPLYP	419
EU041954	MMADIRVSVYFVLLFASLVLVVLSICTSQLDIVGAACFTYWGYKDNCDNTTYSIIRPFYP	224
LbrM28_V2.1550tr	MVTDIHIAVYLVVLFLSVVLVVVSILTSQLDIVNNACLTYWGYKNNCDSSSYTITRRLYP	417
	*::**:::**	
	TM2 TM3	
LmjF28.1400tr	TPYIRRHLGVGAAFSIVTLIVLLVNFAAAVIAVCCLTQAPHTISLNSRIVLGTLGCVGAL	479
LinJ28_V3.1510tr	TPYIRRHLGVGAAFSIITLIVLLVNFAAAVIVVCCLKAAPHTISFNSRIVLGALGCVGVF	479
EU041954	TASIRGHLGVGAAFSVITLIVYLVNFVFAVIVVCCLSTAPYTISFNSRIILGVLGCVGVI	284
LbrM28_V2.1550tr	CAGIRHHLGAGAAFSIITLVVYLVNFIAVIIVVFCLKESPHTISLKSRMVVSALGCVTVV . ** ***.****::**: **** .:*.* **. :*:***::**:****	477
	ТМ4	
LmjF28.1400tr	TQLISWAVVARIYNSGHYAAGELAYGAGFGLNLSSWVMHLLGVALVFAAPSHFVNRRQQR	539
LinJ28_V3.1510tr	TQLISWAVVARIYNSGHYAAGELAYGAGFGLNLSSWVMHLLGVTLVFAVPSHFVNRHQQR	539
EU041954	TQLISWAVVARIYNAGYYTAAQA	307
LbrM28_V2.1550tr	AQLISWAVVARIYNANYCPVGELAYGVGFGLNLSSWVMNIIGVTLVLAAPTITVDYHLRR:*********:::.::	537