

(A)

Gene	Functionality	LEADER	FR1-IMGT (1-26)		CDR1-IMGT (27-38)	FR2-IMGT (39-55)		CDR2-IMGT (56-65)	FR3-IMGT (66-104)			CDR3-IMGT (105-117)				
			A (1-15)	B (16-26)	BC (27-38)	C (39-46)	C' (47-55)	C'' (56-65)	C''' (66-74)	D (75-84)	E (85-96)	F (97-104)	FG (105-117)			
			1	10 15	16 23 26	27	38	39 41 46	47 55	56	65	66 74	75 80 84	85 89 96	97 104	105
			.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<u>TRGV1</u>																
<i>Caphir</i>	F	MLWALVLPVFLALVTQV	SSNAKGAQMSVTGKT	.WETTSFT	CDFT	QDV.....KY	IHLKYQQE	GMAPRRLFY	YDVY..YSKI	EFESGVNKA	KYSVYKGAAG	RSYRFAILNLEH	SDSGTYYC	AVWDK..		
<i>Oviari</i>	F	MLWALVLPVFLALVTQV	SSNAKGAQMSVTAKT	.WDTTSFT	CDFT	QDV.....KY	IHLKYQQE	GMAPRRLFY	YDVY..YSKI	EFESGIDKA	KYSVYKGAAG	RSYRFAILNLEH	SDSGTYYC	AVWDK..		
<u>TRGV2</u>																
<i>Caphir</i>	F	MRVPALLLVFLAPVMQV	SSNMEGKMSITKAAVPGAFVEIICDLI	TQT.....VKY	IHWYKQOE	GTAPRRLLY	YDIS..YSKI	VLESGISEG	KYKVYK...E	KSYTFAISNLQE	SDSGMYC	AVWEK..				
<i>Oviari</i>	F	MRVPALLLVFLAPVMQV	SSNMEGKMSITKAAVPGAFVEIICDLI	TQT.....VKY	IHWYKQOE	GTAPRRLLY	YDIS..YSKI	VLESGISEG	KYKVYK...E	KSYTFAISNLQE	SDSGMYC	AVWEK..				
<u>TRGV3-1</u>																
<i>Caphir</i>	F	MSPLEAFTFFSFWASGLG	LSKVEQAQISLSTEV..KKSIDIHCKIE	STNF....ESET	VYWYRQKR	NQALEHLVY	VIST...TTA	ARNQVDGKN	KIEARKDARM	FTSTLTVNFVEK	DDVGIYYC	AGWS...				
<i>Oviari</i>	F	MSPLEAFTFFSFWASGLG	LSKVEQAQISLSTEV..KKSIDIHCKIE	STDF....ESEA	VYWYRQKR	NQALEHLVY	VIST...TTA	ARNQVDGKN	KIEARKDARM	FTSTLTVNFVEK	EDVGIYYC	AGWS...				
<u>TRGV3-2</u>																
<i>Caphir</i>	P	MSPLEAFTFFHFR*MTGLG	LSKVEQAQISLSTEV..KKSIDIHCKIE	STNF....ESET	VYWYRQKR	NQALEHLVY	VIST...TTA	ARNQVDGKN	KIEARKDARM	FTSTLTVNFVEK	EDVGIYYC	AGWD...				
<i>Oviari</i>	P	MSPLEAFTFFSFWASGLG	LSKVEQAQISLSTEV..KKSIDIHCKIE	STDF....ESET	VYWYRQKR	NQALEHLVY	VIST...TTA	ARNQVDGKN	KIEARKDARM	FASTLMVNFVEK	EDVGIYYC	AGWD...				
<u>TRGV4</u>																
<i>Caphir</i>	ORF	MPTTWIFLMSLAWVYGDI	KMKISQHQLSSTRRP..DRTVHISCKLS	GVPL....ENAI	VHWYQKEKE	GEPLKRILY	GS.....AN	SYKLDKPN	RLEMDNK.KN	GIFYLIVNNVVK	SDEATYYC	ACWD...				
<i>Oviari</i>	F	MPTTWIFLMSLAWVYGDI	KMRISQHQLSSTRRP..DRTVHISCKLS	GVPL....ENAI	VHWYQKEKE	GEPLKRILY	GS.....AN	SYKLDKPN	RLEMDNK.KN	GIFYLIVNNVVK	SDEATYYC	ACWD...				
<u>TRGV5-1</u>																
<i>Caphir</i>	F	MRAPALLLVFLAPVMQV	SSNL....MLITSKT..GETASFP	CDLT	QGA.....TY	IHLKYHEE	GMAPRRLLY	YDSY..NSKP	VLESGISGT	KYHVYKG.TG	MSYTFIVNLQA	SDSGIYYC	AIWDK..			
<i>Oviari</i>	F	MRAPALLLVFLAPVMQV	SSNL....MLITRKT..GETASFP	CDLT	HGA.....TY	IHLKYHEE	GMAPRRLLY	YDSY..NSKP	VFESGISGT	KYHVYKG.TG	SSYTFIVNLQA	SDSGIYYC	AIWDK..			
<u>TRGV5-2</u>																
<i>Caphir</i>	F	MRAPALLLVFLAPVMQV	SSNL....MLITSKT..GETASFP	CDLT	RRA.....TY	IHLKYHEE	GMAPRRLLY	YHSY..NSKP	VLESGISGT	KYHVYKG.TG	RSYTFAIQNLQA	SDSGIYYC	AIWDK..			
<i>Oviari</i>	F	MRAPALLLVFLAPVMQV	SSNL....MLITRKT..GETASFP	CDLT	QGA.....TY	IHLKYHEE	GMAPRRLLY	YDSY..NSKP	VFESGISGT	KYHVYKG.TG	RSYTFAILNLQA	SDSGIYYC	AIWDK..			
<u>TRGV5-3</u>																
<i>Caphir</i>	F	MRAPALLLVFLAPVMQV	SSNL....MLITSKT..GETASFP	CDLT	QGA.....TY	IHLKYHEE	GMAPRRLLY	YDSY..NSKP	VLESGISGA	KYHVYKG.TG	RSYTFAILNLQA	SDSGIYYC	AIWDK..			
<u>TRGV6</u>																
<i>Caphir</i>	F	MGSSLGAEGRAVLGRLALLWALVVPGIQQ	EIRLSQRSVMVGSAG...GAMTMP	QVVS	RSV.....NY	VHWFRQLE	GQAPERLLY	LALS..KRDV	QWDSVLGGD	KVSAARGGDG	KSCTMSLRKLAK	SDEGLYYC	AAWDF..			
<i>Oviari</i>	F	MGSSLGAEGRAVLGRLALLWALVVPGIQQ	EIRLSQRSVMVGSAG...GAMTMP	CSVS	KSV.....DY	VHWFRQLE	GQAPERLLY	LALS..KRDV	QWDSVLGGD	KVSAARGGDG	KSCTMSLRKLAK	SDEGLYYC	AAWGS..			
<u>TRGV7</u>																
<i>Caphir</i>	F	MALLEAVLFSSLWSFGLG	QLTLEQPELSVTGTR..EKSIIMT	CKVF	SKDF....SKDY	IHWYRQKP	DQGLEQLLY	VST...APA	QNHGGKKN	KLEARKDAPS	STSTLKISFLEK	EDEATYYC	AGWLST..			
<i>Oviari</i>	F	MALLEAVLFSSLWSFGLG	QLTLEQPELSVTGTR..EKSIIMT	CKVF	SKDF....SKDY	IHWYRQKP	DQGLEQLLY	VST...APA	QNHGGKKN	KLEARKDAPS	STSTLKISFLEK	EDEATYYC	AGWLSA..			
<u>TRGV8</u>																
<i>Caphir</i>	F	MLWVPALLLIFLAPVTQV	SSNMEEDKLSVTRAT..GSSVVID	CDLT	QN.....Y	IHWYKQOE	GTVPRLLY	YDVY..YSKV	VLESGISEG	KYHVYKG.TG	KSYTFVISNLQE	SDSGTYYC	AVWEK..			
<i>Oviari</i>	F	MLWVPA.LLIFLAPVTQV	SSNMEEDKLSVTRAT..GSSVVID	CDLT	QN.....Y	IHWYKQOE	GTVPRLLY	YDVY..YSKV	VLDGISEG	KYHVYKG.TG	KSYTFVISNLQE	SDSGTYYC	AVWEK..			
<u>TRGV9</u>																
<i>Caphir</i>	F	MLRAPVLLLVFLALVTQV	SSNMEGNRMSITRAI..GSSAVIP	CDLP	TQN.....IKY	IHWYKQOE	GTIPRRLLY	YDVS..YSKV	VLESGISPG	KYHCYEG.TD	KIYKFFVISSLQE	SDSGVYR	AVWEK..			
<i>Oviari</i>	F	MLRAPVLLLVFLALVTQV	SSNMEGDRMSITRAA..GSSAVIP	CDLP	TQN.....IKY	IHWYKQOE	G.IPRRLLY	YDVS..YSKV	VLESGISPG	KYHCYEG.TD	KIYKFFVISSLQE	SDSGVYH	AVWEK..			
<u>TRGV10</u>																
<i>Caphir</i>	P	MLLLPQVLVVASLWYTSG	DLPIQTRITSITKKK..GNMAFLE	CQIK	IDKLLK...KNVY	MHWYRQKP	EQPLKRILY	ISSN...ENV	IHEQGISEE	RYEARKWPSN	ALVSLRIH*ATE	EEAGLYYC	ACWLG..			