

A)

Figure S5

Ct1	
	ATAPPTLLTLMNCGTPSNDIYSIGC-A-GFSPSSLTfKwTDASgKALtdFvQYpAVQSG--Y-GVSQ-RVAKNVWENSKSFSCSVEH-G---TAVINKP
aOm_Ch13_IGHT3	ATAPSTLLTLMNCGTPSNDIYSLGCIAGFSPSSHTfQwTDASgKALtdFvQYpAVQSGETyTgVSQlRVAKNVWENSKSFRCsVDHPGGAKTAVINKP
aOm_Ch12_IGHT3	ATAPPTLLTLMNCGTPSNDIYSIGCLATGFSPSSLTfKwTDASgKALtdFvQYpAVQSGGAYIGVSQVRVAKNVWENSKSFSCSVEHLGSDQTAVINKP
aOm_Ch12_IGHT2	ATAPPTLLILMNCGTPSNDIYSIGCVAKGFSPSSLTfKwTDDSGsALTdFvQYpAVQSGETyTgVSQlSVKKNVWGKSTSFSCSVEHAGVIKTAVINKP
aOm_Ch12_IGHT1	ATAPPTLLTLMNCGTPSNDIYSIGCLATGFSPSSLTfKwTDASgKALtdFvQYpAVQSGGAYIGVSQVRVAKNVWENSKSFSCSVEHLGSDQTAVINKP
Ct2	
	V-KSPSVSLLS-PIGTTQYLMCMIEDFTPNKVTvTWKKNDKEVEGQTPTVGLQPSGLYSASSLLKVN-T-WNNKV-YSCVV-HQG-PTIKTISKTE
aOm_Ch13_IGHT3	VPKSPTVSLLSAPIGTTQYLMCMIEDFTSETVKVTWKKNDMEVEGQTPTLGKRPSGLYSGSSLLKVTNTDWNKVKYSCVVEHQGETISKTTSKTE
aOm_Ch12_IGHT3	VSKSPSVSLLSGPIGTTQYLMCMIEDFTPNKVTvTWKKNDKEVEGQTPTVGLQPSGLYSASSLLKVNKTEWNNKVNYSQVQHQGKPTIKTISKTE
aOm_Ch12_IGHT2	VPKLPVSLLSAPIGTTQYLMCMIEDFAPNKVTvIWKNNNDKEVGKPTPTVGLQPSGLYSASSLLKVNNTDWRNKVKYSCVVEHQGQPTIKTISKTE
aOm_Ch12_IGHT1	VSKSPSVSLLSGPIGTTQYLMCMIEDFTPNKVTvTWKKNDKEVEGQTPTVGLQPSGLYSASSLLKVNKTEWNNKVNYSQVQHQGKPTIKTISKTE
Ct3	
	PLTVTLNPPSVKNVFMDNQAVLDCVI-GTDQNTVAGTTITW-VNG-----I-----ESKGNLNSRVSTLTIDQTRWTVNVKvQCSAMKSGEDTPVIQD-SFTKGS
aOm_Ch13_IGHT3	PLTVTLNPPRVREVFLDNQAVLECVITATDQNTVSGTNITWHINGDIQTaHIDLKPIESKGNLNSRVSTLTIDQTRWTVNVKvQCSAMKSGEDTPVIQDISFTKGS
aOm_Ch12_IGHT3	PLTVTLNPPSVKNVFMDNQAVLDCVISGTDQNTVAGTTITWQVNGNEMKNI----VESKGNLNSRVSTLTIDQTRWTVNVKvQCSAMKSGEDTPVIQDLSFTKGS
aOm_Ch12_IGHT2	PLTVTLNPPSVKNVFMDNQAVLDCVICGTEQNTVAGTTITWHVNRQKQTDHIDLKPIESKGNLNSRVSTLTIDQTRWTVNVKvQCSAMKSGEDTPVIQDISFTKGS
aOm_Ch12_IGHT1	PLTVTLNPPSVKNVFMDNQAVLDCVISGTDQNTVAGTTITWQVNGNEMKNI----VESKGNLNSRVSTLTIDQTRWTVNVKvQCSAMKSGEDTPVIQDLSFTKGS
Ct4	
	-APSVSVHLLPEEDTKKEGDVTLVCLVVPSPSLCDVYIMWKEDSSEYQDGVTSPPQKT-EGNYSVTSVFTVKTnKWEG-SVFTCAVKH-GLDNNTAP-E-SVSKS-GNSCEDK
aOm_Ch13_IGHT3	EAPSVSVHILPEEDTKKGDVTLVCLVVPSPSLCDVYIMWKEDSSEYQEGVTSPPQKTtKKGNyFVTSVFTTTtKDKWDTNVLFtCAVKHAGSDNSTSPKEMSVSKSTGNSCEDK
aOm_Ch12_IGHT3	RAPSVSVHLLPEEDTKKEGDVTLVCLVVPSPSLCDVYIMWKEDSSEYQDGVTSPPQKTPEGNYSVTSVFTVKTnKWEGDSVFTCAVKH-GLDNNTAPQERSVSKSMGNSCEDK
aOm_Ch12_IGHT2	EAPSVSIHLLPEEDTKKEGDVTLVCLVVPSPSLCDVYIMWKEDSSEYQDGVTSPPQKTLEGNYSVTSVFTVKTnKWEGNSVFTCAIKH-SLDNNTALFFSFLFHLyLT----
aOm_Ch12_IGHT1	RAPSVSVHLLPEEDTKKEGDVTLVCLVVPSPSLCDVYIMWKEDSSEYQDGVTSPPQKTPEGNYSVTSVFTVKTnKWEGDSVFTCAVKH-GLDNNTAPQERSVSKSMGNSCEDK

B)

	aOm_Ch13_IGHT3	aOm_Ch12_IGHT1	aOm_Ch12_IGHT2	aOm_Ch12_IGHT3
AAW66978.1_IgT1	99.3	78.7	77.5	78.7
AAV48553.1_IgT2	78.9	99.8	83.8	99.8
ANW11927.1_IgT3	82.8	80.6	77.5	80.6
aOm_Ch13_IGHT3		79.2	77.9	79.2
aOm_Ch12_IGHT2			83.8	100
aOm_Ch13_IGHT3				83.8