

Table S1. Antibody variable gene region sequence features for RRV antibodies. mRNA was isolated from clonal hybridoma cells, and cDNA was synthesized for Sanger automated DNA sequence analysis. The specific gene, allele, CDR length, and V-D and D-J junctions were determined through use of the IMGT program.

Name	V-GENE and allele	J-GENE and allele	D-GENE and allele	CDR-IMGT lengths	AA JUNCTION
RRV 6-HC	<i>IGHV3-23*04 F</i> , or <i>IGHV3-23D*02 F</i>	<i>IGHJ5*01 F</i> , or <i>IGHJ5*02 F</i> (see comment)	<i>IGHD6-13*01 F</i>	8.8.11	CANLYISSWYLYW
RRV 6-LC	<i>IGKV3-15*01 F</i>	<i>IGKJ1*01 F</i>		6.3.11	CQQYNDWPPGGTF
RRV 12-HC	<i>IGHV4-31*03 F</i>	<i>IGHJ3*02 F</i>	<i>IGHD5-24*01 ORF</i>	10.7.15	CARVGGDGNNRDA FDIW
RRV 12-LC	<i>IGLV3-1*01 F</i>	<i>IGLJ3*02 F</i>		6.3.9	CQAWDSTTGVF
RRV 19-HC	<i>IGHV3-21*01 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD2-15*01 F</i>	8.8.18	CARDDCSGSSCYYY YGMDVW
RRV 19-LC	<i>IGKV2-28*01 F</i> , or <i>IGKV2D-28*01 F</i>	<i>IGKJ3*01 F</i>		10.3.11	CMQALQTPRSFTF
RRV 34-HC	<i>IGHV3-7*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD6-19*01 F</i>	8.8.13	CARDFDSSGWFP A YW
RRV 34-LC	<i>IGLV8-61*01 F</i>	<i>IGLJ3*02 F</i>		9.3.X	CLLYMISVLS#VF
RRV 49-HC	<i>IGHV4-61*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD3-22*01 F</i>	10.7.14	CARGTRGYPPQGY P DSW
RRV 49-LC	<i>IGLV3-10*01 F</i>	<i>IGLJ3*02 F</i>		6.3.10	CYSTDSSGTPLF
RRV 86-HC	<i>IGHV2-70*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD6-13*01 F</i>	10.7.11	CTGGSSWYVPDYW
RRV 86-LC	<i>IGLV1-44*01 F</i>	<i>IGLJ2*01 F</i> , or <i>IGLJ3*01 F</i>		8.3.12	CAVWDNSLNGR V V F
RRV 92-HC	<i>IGHV3-15*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD3-10*01 F</i>	8.10.19	CVNEAYYYGSG S Y WEYYFDYW
RRV 92-LC	<i>IGLV3-19*01 F</i>	<i>IGLJ2*01 F</i> , or <i>IGLJ3*01 F</i>		6.3.10	CNSRDTSGNH L F

RRV 130-HC	<i>IGHV1-24*01 F</i>	<i>IGHJ2*01 F</i>	<i>IGHD3-10*01 F</i>	8.8.21	CTTGSYYHGWSYS GRNWWYFDLW
RRV 130-LC	<i>IGLV3-19*01 F</i>	<i>IGLJ2*01 F</i> , or <i>IGLJ3*01 F</i>		6.3.6	CNSRDSGF
RRV 133-HC	<i>IGHV3-30*03 F</i> , or <i>IGHV3-30*18 F</i> or <i>IGHV3-30-5*01 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD3-3*02 F</i>	8.8.23	CARDQGLEVAFSQ WSHYDYGGMDVW
RRV 133-LC	<i>IGLV2-14*01 F</i>	<i>IGLJ2*01 F</i> , or <i>IGLJ3*01 F</i>		9.3.11	CSSYTSISTSVLF
RRV 135-HC	<i>IGHV1-24*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD3-10*01 F</i>	8.8.19	CATVAHYHGSDSY NFYDFW
RRV 135-LC	<i>IGLV3-19*01 F</i>	<i>IGLJ2*01 F</i> , or <i>IGLJ3*01 F</i>		6.3.12	CTSRDSSSDLVIF
RRV 136-HC	<i>IGHV3-15*01 F</i>	<i>IGHJ5*02 F</i>	<i>IGHD2-8*01 F</i>	8.10.10	CMTESDMTFDPW
RRV 136-LC	<i>IGKV2-28*01 F</i> , or <i>IGKV2D-28*01 F</i>	<i>IGKJ3*01 F</i>		11.3.9	CMQALQTPYTF
RRV 139-HC	<i>IGHV3-23*04 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD4-17*01 F</i>	8.8.16	CATATTVTYYYYYG MDVW
RRV 139-LC	<i>IGKV2-28*01 F</i> , or <i>IGKV2D-28*01 F</i>	<i>IGKJ3*01 F</i>		11.3.10	CMQALQPPRFTF
RRV-191 HC	<i>IGHV4-38-2*01 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD2-21*02 F</i>	9.7.15	CVRERVGVTSYFG MDVW
RRV-191 LC	<i>IGKV-39*01 F</i> or <i>IGKV1D-39*01 F</i>	<i>IGKJ4*01 F</i>		6.8.8	CHQSYTGNTF
RRV-196 HC	<i>IGHV3-15*01 F</i>	<i>IGHJ1*01 F</i>	<i>IGHD3-3*01 F</i>	8.8.22	CTTISYYDFWSGHY MGREEYFQHW
RRV-196 LC	<i>IGLV3-19*01 F</i>	<i>IGLJ2*01 F</i> or <i>IGLJ3*01 F</i>		6.3.12	CNSRDSSGDPHVVF
RRV-199 HC	<i>IGHV3-33*01 F</i> , or <i>IGHV3-33*05</i> or <i>IGHV3-33*06 F</i>	<i>IGHJ6*202 F</i>	<i>IGHD6-19*01</i>		
RRV-199 LC	<i>IGLV2-8*01 F</i>			9.3.11	CSSYADNNNFVVF

		<i>IGLJ2*01 F, or IGLJ3*01 F</i>			
RRV-200 HC	<i>IGHV3-21*01 F, or IGHV3-21*02 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD3-22*01 F</i>	8.8.28	CAREIVSYGDYGDS SGTSKYFYYYGVD VW
RRV-200 LC	<i>IGKV1-12*01 F, or IGKV1-12*02, or IGKV1D-12*02 F</i>	<i>IGKJ3*01 F</i>		6.3.11	CQQANSFPPGFTF
RRV-201 HC	<i>IGHV3-33*01 F, or IGHV3-33*05 F, or IGHV3-33*06 F</i>	<i>IGHJ6*02</i>	<i>IGHD6-19*01 F</i>	8.8.18	CARDQQQLVLRP GWYGMVDVW
RRV-201 LC	<i>IGLV2-8*01 F</i>	<i>IGLJ2*01 F, or IGLJ3*01 F</i>		9.3.11	CSSYADNNNFVVF
RRV-205 HC	<i>IGHV3-73*02 F</i>	<i>IGHJ6*02</i>	<i>IGHD5-12*01 F</i>	8.10.16	CLGNSGYDPEYFYG MDVW
RRV-205 LC	<i>IGLV6-57*01 F, or IGLV6-57*02 F</i>	<i>IGLJ2*01 F, or IGLJ3*01 F</i>		8.3.9	CQSYDRSNVVF
RRV-207 HC	<i>IGHV4-34*01 F</i>	<i>IGHJ4*02 F</i>	<i>IGHD6-13*01 F</i>	8.7.13	CARYVLGSSWPFDY W
RRV-207 LC	<i>IGKV1-39*01 F, or IGKV1D-39*01</i>	<i>IGKJ4*01 F</i>		6.3.9	CQQSSSTPLTF
RRV-210 HC	<i>IGHV3-11*01F</i>	<i>IGHJ5*02 F</i>	<i>IGHD1-26*01 F</i>	8.8.16	CARSVMGGTTMGE WFDPW
RRV 210 LC	<i>IGLV1-40*01 F</i>	<i>IGLJ2*01 F, or IGLJ3*01 F</i>		9.3.12	CQSYDSSLSGSVVF
RRV-221 HC	<i>IGHV1-18*01 F</i>	<i>IGHJ6*02 F</i>	<i>IGHD3-10*01 F</i>	8.8.22	CAREEGITLVRGTSN YYYYGMDVW
RRV-221 LC	<i>IGKV2-28*01 F, or IGKV2D-28*01 F</i>	<i>IGKJ2*01 F</i>		11.3.9	CMQALQTPHTF