PIA9 BCR recombinations Sample IGHV1-18 IGHD2-8 IGHJ6 IGHV1-18_IGHD3-22_IGHJ5 IGHV1-18_IGHD6-13_IGHJ6 IGHV1-2_IGHD2-15_IGHJ4 IGHV1-46_IGHD2-15_IGHJ4 IGHV1-58_IGHD6-6_IGHJ6 IGHV1-67_IGHD1-26_IGHJ6 IGHV1-69_IGHD1-26_IGHJ6 IGHV1-69_IGHD2-15_IGHJ3 IGHV1-69_IGHD6-6_IGHJ6 IGHV1-8_IGHD6-6_IGHJ6 **IgH** IGHV1OR21-1_IGHD1-26_IGHJ6 IGHV2-5_IGHD3-10_IGHJ4 IGHV3-21_IGHD1-14_IGHJ4 IGHV3-23_IGHD4-11_IGHJ3 IGHV3-23_IGHD6-6_IGHJ4 IGHV3-30-3_IGHD1-26_IGHJ6 IGHV3-30-3_IGHD5-12_IGHJ4 IGHV3-33_IGHD2-21_IGHJ4 IGHV3-71_IGHD3-22_IGHJ2 IGHV4-39_IGHD3-22_IGHJ3 IGHV5-51_IGHD1-26_IGHJ4 CAHRPPVTYYYDPHFDYW CAKDYSSFDIW CAKRTLDSW CARAYCSATTCPPGGYW CARDCQGCYYDSSGGNFDLW CARDFTGVDDRSGKNWFDSW CARDQRYSSNPMDVW CARDRGGYCTGGVCHPPDYYYYYGMDVW CARDSGRQSIYW CARDVGATSVYYYYGMDVW IgH CDR3aa CAREHTYCGGDCYYYFDYW CAREIVTTSFDYW CARPYRASYWYFDYW CARRDTSGPWLIW CARTCSGGSCPDAFDIW CARTEYCSGGSCLRIFDYW CAYSDSSDPRGMDVW CAYSDSSDPRGVDVW CAYSNSSDPRGMDVW CVYSDSSDPRGMDVW IGKV1-12_NA_IGKJ2 IGKV1-33_NA_IGKJ2 IGKV1-33_NA_IGKJ4 IGKV1-39_NA_IGKJ1 IGKV1-39_NA_IGKJ4 Sample IGKV1-5_NA_IGKJ1 MYC::IGH-IGKV1-5_NA_IGKJ5 MYC::IGH+ IGKV1D-39_NA_IGKJ4 IGKV2-24_NA_IGKJ5 IgK IGKV2-26_NA_IGKJ5 IGKV2D-29 NA IGKJ2 IGKV3-20_NA_IGKJ2 IGKV3-20_NA_IGKJ4 IGKV3-7_NA_IGKJ1 IGKV3-7_NA_IGKJ2 IGKV3D-20_NA_IGKJ2 IGKV4-1_NA_IGKJ2 IGKV4-1_NA_IGKJ3 IGKV6D-21_NA_IGKJ1 CHQSSSLPQTF CMEASQFPRITF CMQDAQDPPITF CMQSIQLPMYTF CQQANSFPLTF CQQDYNLPGTF CQQDYNLSYTF CQQSYSTPWTF CQQSYTTPLTF IgK CDR3aa CQQYDNLPLTF CQQYDNLPYTF CQQYDSYSPRPF CQQYGSSPPYTF CQQYGSSPYTF CQQYGSSSYTF CQQYNSYPWTF CQQYYSTLTFTF CQQYYSTPYTF CRQYYSTPYTF IGLV1-44_NA_IGLJ1 IGLV2-23_NA_IGLJ3 IGLV3-1_NA_IGLJ1 **IgL** IGLV3-1_NA_IGLJ2 IGLV3-25_NA_IGLJ1 IGLV4-69_NA_IGLJ2 CAAWDDSLNGLYVF CAAWDDSLNVFYAF CAAWDDSLNVFYVF CCSYAGGSTPVVF IgL CDR3aa CQAWDSSTVVF CQAWDSSTYVF CQSADSSGPRVF CQTWGTGILVF