### S2 Table. MAb Characteristics

| mAb | Timepoint | Animal ID | LC type | VH gene | DR gene | JR gene | HCDR3 aa | HCDR3 length | HC %SHM | VL gene | JL gene | LCDR3 aa | LCDR3 length | LC %SHM | Epitope targeted |
|-----|-----------|-----------|---------|---------|---------|---------|-----------|--------------|----------|---------|---------|-----------|-------------|----------|----------------|
| RM19A1 | week 25 | rho187 | IGHD3-22*01 | IGHD4-22*01 | IGHD6-29*01 | IGHJ4*01 | ARGGMSSAWQSSKYYFDQ | 18 | 9.0% | IGKV1-AAL*01 | LJI.Rh_IGKJ1.1 | QQYNSDPPT | 9 | 4.7% | 289 hole epitope |
| RM19A2 | week 25 | rho187 | IGHD3-22*01 | IGHD4-22*01 | IGHD6-29*01 | IGHJ4*01 | ARGGMSSAWQSSKYYFDQ | 18 | 9.0% | IGKV1-AAL*01 | LJI.Rh_IGKJ1.1 | QQYNSDPPT | 9 | 4.7% | 289 hole epitope |
| RM19A3 | week 25 | rho187 | IGHD3-22*01 | IGHD4-22*01 | IGHD6-29*01 | IGHJ4*01 | ARGGMSSAWQSSKYYFDQ | 18 | 9.0% | IGKV1-AAL*01 | LJI.Rh_IGKJ1.1 | QQYNSDPPT | 9 | 4.7% | 289 hole epitope |

*Inferred based on clonal relationship to mAbs with epitopes mapped by ns-EM. Clonal families are highlighted with individual colors.