

A SS03: Revertant 1

C A R C S I G T A P L D A I D I
TGTGCGAGATGTTCTATAGGAAACAGCTCCCTCTTGATGCTATTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAG
TGTGCGAGATGTTCTATAGCAGCAGCTGGTCTTGATGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAG
C A R C S I A A A G L D A F D I

VH4-59 **D6-13** **JH3**

SS03: Revertant 2

C A R C S I G T A P L D A I D I
TGTGCGAGATGTTCTATAGGAAACAGCTCCCTCTTGATGCTATTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAG
TGTGCGAGAGGTTCTATAGCAGCAGCTGGTCTTGATGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAG
C A R G S I A A A G L D A F D I

VH4-59 **D6-13** **JH3**

B SS204: Revertant 1

C A R E G Y G D G N R P F D Y
TGTGCGAGAGAAGGCTACGGTGATGGTAACCGCCCTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
TGTGCGAGAGAAGACTACGGTGATGGTAACCGCCACTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
C A R E D Y G D G N R H F D Y

VH1-69 **D4-17** **JH4**

SS204: Revertant 2

C A R E G Y G D G N R P F D Y
TGTGCGAGAGAAGGCTACGGTGATGGTAACCGCCCTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
TGTGCGAGAGAAGGCTACTACGGTGATGGTAACCGCCACTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
C A R E G Y Y G G N R H F D Y

VH1-69 **D4-23** **JH4**

SS204: Revertant 3

C A R E G Y G D G N R P F D Y
TGTGCGAGAGAAGGCTACGGTGATGGTAACCGCCCTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
TGTGCGAGAGAAGGCTACTACGGTGATGGTAACCGCTACTTTGACTACTGGGGCCAAGGAACCTGGTCACCGTCTCCTCAG
C A R E G Y Y G G N R Y F D Y

VH1-69 **D4-23** **JH4**

C SS59: Revertant

C A R V R D F W S D Y Y R N P P R S F K Y G M D V
TGTGCGAGAGTTCGCGATTTTGGAGTGAATTATTATAGAAAACCCGCCCGGTCTTTAAATACGGTATGGACGTCCTGGGGCCAAGGGACCACGGTCACCGTCTCCTCA
TGTGCGAGAGTTCGCGATTTTGGAGTGGTTATTATAGAAAACCCGCCCGGTACTACTACTACGGTATGGACGTCCTGGGGCCAAGGGACCACGGTCACCGTCTCCTCA
C A R V R D F W S G Y Y R N P P R Y Y Y Y G M D V

VH3-53 **D3-3** **JH6**

Figure S1. IgH CDR3 sequences of unmutated revertant antibodies engineered from SS antibodies. For each SS monoclonal expansion we reverted in vitro mutated antibody heavy- and light-chain genes to their original unmutated sequences.