

 \overline{X} non conserved $\overline{X} \geq 50\%$ conserved

99

99

99

99

KD KD KD

 $\overline{11}$

IGHV3-9 03 IGHV3-9 01

consensus

IGHV3-9 01 t307c

IGHV3-9 01 a152g

IGHV3-9 01 a104g