

**Table S1.** SPR-Determined Kinetic Parameters for the Interaction of the VLDLR(1-8) Fragment with the  $(\beta 15-66)_2$  Fragment and its Mutants.

<b><math>\beta</math>N-fragment/mutants</b>	$k_{ass}$ ( $M^{-1}s^{-1}$ )	$k_{diss}$ ( $s^{-1}$ )	$K_d$ ( $M$ )
$(\beta 15-66)_2$ fragment	$1.38 \times 10^6$	$4.28 \times 10^{-3}$	$3.1 \times 10^{-9}$
<b><u>Lys-mutants</u></b>			
$(\beta 15-66)_2-K^{21}K^{22}$	$2.68 \times 10^5$	$9.90 \times 10^{-3}$	$3.7 \times 10^{-8}$
$(\beta 15-66)_2-K^{47}$	$2.16 \times 10^6$	$1.50 \times 10^{-2}$	$7.0 \times 10^{-9}$
$(\beta 15-66)_2-K^{53}K^{54}K^{58}$	$2.80 \times 10^5$	$7.00 \times 10^{-2}$	$2.5 \times 10^{-7}$
<b><u>Arg-mutants</u></b>			
$(\beta 15-66)_2-R^{17}$	$2.41 \times 10^6$	$1.33 \times 10^{-2}$	$5.5 \times 10^{-9}$
$(\beta 15-66)_2-R^{23}$	$3.19 \times 10^6$	$2.00 \times 10^{-2}$	$6.3 \times 10^{-9}$
$(\beta 15-66)_2-R^{30}$	$1.63 \times 10^6$	$1.21 \times 10^{-2}$	$7.4 \times 10^{-9}$
$(\beta 15-66)_2-R^{42}R^{44}$	$1.12 \times 10^5$	$2.28 \times 10^{-2}$	$2.0 \times 10^{-7}$
$(\beta 15-66)_2-R^{57}$	$1.58 \times 10^6$	$5.70 \times 10^{-3}$	$3.6 \times 10^{-9}$
<b><u>Arg-Lys-mutants</u></b>			
$(\beta 15-66)_2-K^{21}K^{22}R^{23}$	$1.73 \times 10^6$	$2.77 \times 10^{-1}$	$1.6 \times 10^{-7}$
$(\beta 15-66)_2-R^{42}R^{44}K^{47}$	$8.62 \times 10^4$	$5.24 \times 10^{-1}$	$6.1 \times 10^{-6}$
$(\beta 15-66)_2-K^{53}K^{54}R^{57}K^{58}$	$2.26 \times 10^4$	$2.62 \times 10^{-1}$	$1.2 \times 10^{-5}$