

**PKPD model**

**Intravenous bolus – One compartment – Indirect response model- Parallel study design**

<b>Model</b>	<b>OFV</b>	<b>Population estimate (%SE)</b>	<b>Between subject variability (%SE)</b>
	2819.75		
<b>CL (L/hr)</b>		1.06 (3.4)	27.2 % (15)
<b>V (L)</b>		9.54 (3.1)	30.5 % (12.5)
<b>Residual variability</b>			
Proportional error		6% (14.4)	
Additive error		1.0 ug/ml (6.9)	
<b>PKPD model: Indirect response model (Stimulation of Kin)</b>			
$\frac{dR}{dt} = k_{in} \cdot \left( 1 + \frac{S_{max} \cdot C}{SC_{50} + C} \right) - k_{out} \cdot R$	6004.1		
<b>Kin (ng/ml/hr)</b>		10.6 (4.0)	37% (15.7)
<b>kout (1/hr)</b>		0.65 (6.1)	32% (24.1)
<b>Smax</b>		3.8 (4.7)	34% (15.3)
<b>SC50 (ug/ml)</b>		17.5 (5.5)	36% (39.2)
<b>Residual variability</b>			
proportional error		5.6% (7.6)	