

Target Name	VCAM-1
Target TTD ID	TTDR00453

Target Species	Human
Chemical Type	Piperazinyl phenylalanine derivatives
Mode of Action	Inhibitor
QSAR Model 1	$-\log IC_{50} = [2.93] + SaaNEindex [-0.037] + SsClcount [0.77] + 4path\ count [0.064] + SlogP [-0.69]$ <p> $n=21, r=0.93, r^2=0.8567, r^2\ se=0.25, F=33.89, F\ tabulated=7.46, q^2=0.76, q^2_se=0.33, pred_r^2=0.42, pred_r^2\ se=0.24, degree\ of\ freedom=17$ </p>
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>SaaNEindex, electro-topological state indices for number of nitrogen atoms connected with two aromatic double bonds; SsClcount, electro-topological parameter defining total number of chlorine atoms connected with one single bond; 4pathcount, topological parameter signifying total number of fragments of fourth order (four bond path) in compound; SlogP, signify log of the octanol/water partition coefficient; n, number of samples, r, correlation coefficient; $r^2\ se$, standard error of squared correlation coefficient; F, F-ratio; F tabulated, tabulated F-ratio; q^2, square of the correlation coefficient; $q^2\ se$, standard error of square of the correlation coefficient; $pred\ r^2$, predicted squared correlation coefficient; $pred\ r^2\ se$, standard error of predicted squared correlation coefficient</p>
Reference	Quantitative Structure Activity Relationship Studies of Piperazinyl Phenylalanine Derivatives as VLA-4/VCAM-1 Inhibitors. <i>Medicinal Chemistry</i> , 2009, 5, 446-454