

Target Name	Renin
Target TTD ID	TTDS00451

Target Species	Human
Chemical Type	6-ethyl-2, 4-diaminopyrimidine-based
Mode of Action	Inhibitor
QSAR Model 1	$\frac{\log(1/IC_{50})}{MW} = +3.15 \times 10^{-4}(\text{Hypo1/5}) + 2.68 \times 10^{-4}(\text{Hypo1/7}) - 1.39 \times 10^{-3}(\text{ShadowNU})$ $- 2.327 \times 10^{-3}(^1\chi^v) + 1.94 \times 10^{-3}(^0\chi^v) - 4.45 \times 10^{-4}(\text{ADME_Absorption_Level2D})$ $- 1.52 \times 10^{-2}$ <p>$n = 96, r_{96}^2 = 0.75, r_{BS}^2 = 0.746, r_{LOO}^2 = 0.697, r_{L25\%O}^2 = 0.717, F = 43.52, r_{PRESS}^2 = 0.527$</p>
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>n is the number of training compounds; r_{96}^2, the correlation coefficient against 96 training compounds; r_{LOO}^2, the leave-one-out cross-validation correlation coefficient; $r_{L25\%O}^2$, the leave 25% out cross-validation correlation coefficient; r_{BS}^2, the bootstrapping regression coefficient; r_{PRESS}^2, the predictive r^2 determined for 23 randomly selected test compounds; Hypo1/5 and Hypo1/7, fit values of the training compounds against the 1st pharmacophore models in 5th and 7th automatic runs.</p> <p>ShadowNU, the ratio between the largest to smallest X, Y and Z dimensions of the molecule and ADME Absorption Level 2D, a categorical descriptor related to the distance of a particular molecule from the centre of the chemical space defined by well-absorbed compounds on the scatter plot constructed between Log P (Atom-based Log P) versus polar surface area (PSA).</p>
Reference	Discovery of new renin inhibitory leads via sequential pharmacophore modeling, QSAR analysis, in silico screening and in vitro evaluation. <i>Journal of Molecular Graphics and Modelling</i> 29 (2011) 843–864

Target Species	Human
Chemical Type	Amino-aryl-piperidine-based
Mode of Action	Inhibitor
QSAR Model 1	$\frac{\log(1/IC_{50})}{MW} = +3.15 \times 10^{-4}(\text{Hypo1/5}) + 2.68 \times 10^{-4}(\text{Hypo1/7}) - 1.39 \times 10^{-3}(\text{ShadowNU})$ $- 2.327 \times 10^{-3}(^1\chi^v) + 1.94 \times 10^{-3}(^0\chi^v) - 4.45 \times 10^{-4}(\text{ADME_Absorption_Level2D})$ $- 1.52 \times 10^{-2}$ <p>$n = 96, r_{96}^2 = 0.75, r_{BS}^2 = 0.746, r_{LOO}^2 = 0.697, r_{L25\%O}^2 = 0.717, F = 43.52, r_{PRESS}^2 = 0.527$</p>
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>n is the number of training compounds; r_{96}^2, the correlation coefficient against 96 training compounds; r_{LOO}^2, the leave-one-out cross-validation correlation coefficient; $r_{L25\%O}^2$, the leave 25% out cross-validation correlation coefficient; r_{BS}^2, the bootstrapping regression coefficient; r_{PRESS}^2, the predictive r^2 determined for 23 randomly selected test compounds; Hypo1/5 and Hypo1/7, fit values of the training compounds against the 1st pharmacophore models in 5th and 7th automatic runs.</p> <p>ShadowNU, the ratio between the largest to smallest X, Y and Z dimensions of the molecule and ADME Absorption Level 2D, a categorical descriptor related to the distance of a particular molecule from the centre of the chemical space defined by well-absorbed compounds on the scatter plot constructed between Log P (Atom-based Log P) versus polar surface area (PSA).</p>
Reference	Discovery of new renin inhibitory leads via sequential pharmacophore modeling, QSAR analysis, in silico screening and in vitro evaluation. <i>Journal of Molecular Graphics and Modelling</i> 29 (2011) 843–864

Target Species	Human
Chemical Type	6-(2,4-diaminopyrimidinyl)-1,4-benzoxazin-3-ones
Mode of Action	Inhibitor

Action	
QSAR Model 1	$\frac{\log(1/IC_{50})}{MW} = +3.15 \times 10^{-4}(\text{Hypo1/5}) + 2.68 \times 10^{-4}(\text{Hypo1/7}) - 1.39 \times 10^{-3}(\text{ShadowNU})$ $- 2.327 \times 10^{-3}(^1\chi^v) + 1.94 \times 10^{-3}(^0\chi^v) - 4.45 \times 10^{-4}(\text{ADME_Absorption_Level2D})$ $- 1.52 \times 10^{-2}$ <p>$n = 96, r_{96}^2 = 0.75, r_{BS}^2 = 0.746, r_{LOO}^2 = 0.697, r_{L25\%O}^2 = 0.717, F = 43.52, r_{PRESS}^2 = 0.527$</p>
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>n is the number of training compounds; r_{96}^2, the correlation coefficient against 96 training compounds; r_{LOO}^2, the leave-one-out cross-validation correlation coefficient; $r_{L25\%O}^2$, the leave 25% out cross-validation correlation coefficient; r_{BS}^2, the bootstrapping regression coefficient; r_{PRESS}^2, the predictive r^2 determined for 23 randomly selected test compounds; Hypo1/5 and Hypo1/7, fit values of the training compounds against the 1st pharmacophore models in 5th and 7th automatic runs.</p> <p>ShadowNU, the ratio between the largest to smallest X, Y and Z dimensions of the molecule and ADME Absorption Level 2D, a categorical descriptor related to the distance of a particular molecule from the centre of the chemical space defined by well-absorbed compounds on the scatter plot constructed between Log P (Atom-based Log P) versus polar surface area (PSA).</p>
Reference	<p>Discovery of new renin inhibitory leads via sequential pharmacophore modeling, QSAR analysis, in silico screening and in vitro evaluation. <i>Journal of Molecular Graphics and Modelling</i> 29 (2011) 843–864</p>

Target Species	Human
Chemical Type	Ketopiperazine-based
Mode of Action	Inhibitor
QSAR Model 1	$\frac{\log(1/IC_{50})}{MW} = +3.15 \times 10^{-4}(\text{Hypo1/5}) + 2.68 \times 10^{-4}(\text{Hypo1/7}) - 1.39 \times 10^{-3}(\text{ShadowNU})$ $- 2.327 \times 10^{-3}(^1\chi^v) + 1.94 \times 10^{-3}(^0\chi^v) - 4.45 \times 10^{-4}(\text{ADME_Absorption_Level2D})$ $- 1.52 \times 10^{-2}$ <p>$n = 96, r_{96}^2 = 0.75, r_{BS}^2 = 0.746, r_{LOO}^2 = 0.697, r_{L25\%O}^2 = 0.717, F = 43.52, r_{PRESS}^2 = 0.527$</p>

Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>n is the number of training compounds; r^2_{96}, the correlation coefficient against 96 training compounds; r^2_{LOO}, the leave-one-out cross-validation correlation coefficient; $r^2_{L25\%O}$, the leave 25% out cross-validation correlation coefficient; r^2_{BS}, the bootstrapping regression coefficient; r^2_{PRESS}, the predictive r^2 determined for 23 randomly selected test compounds; Hypo1/5 and Hypo1/7, fit values of the training compounds against the 1st pharmacophore models in 5th and 7th automatic runs.</p> <p>ShadowNU, the ratio between the largest to smallest X, Y and Z dimensions of the molecule and ADME Absorption Level 2D, a categorical descriptor related to the distance of a particular molecule from the centre of the chemical space defined by well-absorbed compounds on the scatter plot constructed between Log P (Atom-based Log P) versus polar surface area (PSA).</p>
Reference	<p>Discovery of new renin inhibitory leads via sequential pharmacophore modeling, QSAR analysis, in silico screening and in vitro evaluation. <i>Journal of Molecular Graphics and Modelling</i> 29 (2011) 843–864</p>