

Target Name	Nav1.4 channel
Target TTD ID	TTDS00416

Target Species	Human
Chemical Type	Tocainide analogues
Mode of Action	Blocker
QSAR Model 1	$\text{pEC}_{50} = 3.174(\pm 1.17)C \text{ Log } D - 3.629(\pm 1.50)\log(\beta C \text{ Log } D + 1) + 3.161(\pm 0.59)\log \beta$ $= -0.905; n = 20; r^2 = 0.734; s = 0.402; F = 14.749$
QSAR Model 2	$\text{pEC}_{50} = 1.401(\pm 0.62)C \text{ Log } D - 1.894(\pm 1.08)\log(\beta C \text{ Log } D + 1) + 3.798(\pm 0.46)\log \beta$ $= -1.489; n = 20; r^2 = 0.666; s = 0.394; F = 10.632$
QSAR Model 3	$\text{pEC}_{50} = 0.465(\pm 0.11)C \text{ Log } D + 0.431(\pm 0.10)\text{p}K_a + 0.487(\pm 0.89)$ $n = 22; r^2 = 0.589; s = 0.514; F = 13.62$
QSAR Model 4	$\text{pEC}_{50} = 0.568(\pm 0.10)C \text{ Log } D + 0.616(\pm 0.16)\text{p}K_a - 1.286(\pm 1.43)$ $n = 20; r^2 = 0.677; s = 0.376; F = 17.83$
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: <a href="#">MoDel</a> and <a href="#">e-dragon</a></p> <p>Lipophilic and basic molecular properties for VGSCs blocking activity were calculated as C Log D (pH<sup>1/4</sup> 7.42) and pKa using the Advanced Chemistry Development (ACD) software</p>
Reference	<p>2D- and 3D-QSAR of Tocainide and Mexiletine analogues acting as Na<sub>v</sub>1.4 channel blockers.</p> <p><i>European Journal of Medicinal Chemistry</i> 44 (2009) 1477–1485</p>

Target Species	Human
----------------	-------

<b>Chemical Type</b>	Mexiletine analogues
<b>Mode of Action</b>	Blocker
<b>QSAR Model 1</b>	$\text{pEC}_{50} = 3.174(\pm 1.17)C \text{ Log } D - 3.629(\pm 1.50)\log(\beta C \text{ Log } D + 1) + 3.161(\pm 0.59)\log \beta$ $= -0.905; n = 20; r^2 = 0.734; s = 0.402; F = 14.749$
<b>QSAR Model 2</b>	$\text{pEC}_{50} = 1.401(\pm 0.62)C \text{ Log } D - 1.894(\pm 1.08)\log(\beta C \text{ Log } D + 1) + 3.798(\pm 0.46)\log \beta$ $= -1.489; n = 20; r^2 = 0.666; s = 0.394; F = 10.632$
<b>QSAR Model 3</b>	$\text{pEC}_{50} = 0.465(\pm 0.11)C \text{ Log } D + 0.431(\pm 0.10)\text{pK}_a + 0.487(\pm 0.89)$ $n = 22; r^2 = 0.589; s = 0.514; F = 13.62$
<b>QSAR Model 4</b>	$\text{pEC}_{50} = 0.568(\pm 0.10)C \text{ Log } D + 0.616(\pm 0.16)\text{pK}_a - 1.286(\pm 1.43)$ $n = 20; r^2 = 0.677; s = 0.376; F = 17.83$
<b>Molecular Descriptor</b>	<p>Access the following web-servers to compute molecular descriptors: <a href="#">MoDel</a> and <a href="#">e-dragon</a></p> <p>Lipophilic and basic molecular properties for VGSCs blocking activity were calculated as C Log D (pH<sup>1/4</sup> 7.42) and pK<sub>a</sub> using the Advanced Chemistry Development (ACD) software</p>
<b>Reference</b>	<p>2D- and 3D-QSAR of Tocainide and Mexiletine analogues acting as Na<sub>v</sub>1.4 channel blockers.  <i>European Journal of Medicinal Chemistry</i> 44 (2009) 1477–1485</p>