Target Name	5-HT3 receptor
Target TTD ID	TTDS00106

Target Species	Human
Chemical Type	Arylguanidines
Mode of Action	Binder
QSAR Model 1	$pK_i = 2.30(\pm 0.81)\sigma_m + 5.53$ $n = 8, r = 0.760, \quad F = 8.17$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** No correlation was found between 5-HT3 affinity (pKi) and p (r=0.132), but a better relationship exists with sm (r=0.760) (eq 1). Interestingly, if compound 4 is excluded, r=0.870
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	3-monosubstituted compounds
Mode of Action	Binder
QSAR Model 1	$pK_i = 2.30(\pm 0.81)\sigma_m + 5.53$ $n = 8, r = 0.760, \quad F = 8.17$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** No correlation was found between 5-HT3 affinity (pKi) and p (r=0.132), but a better relationship

	exists with sm (r=0.760) (eq 1). Interestingly, if compound 4 is excluded, r=0.870
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	Arylguanidines
Mode of Action	Binder
QSAR Model 1	$pK_i = 1.80(\pm 0.23)\pi_4 + 5.69$ $n = 7, r = 0.906, \quad F = 23.0$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** No correlation was found between 5-HT3 affinity (pKi) and p (r=0.132), but a better relationship exists with sm (r=0.760) (eq 1). Interestingly, if compound 4 is excluded, r=0.870
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	4-monosubstituted compounds
Mode of Action	Binder
QSAR Model 1	$pK_i = 1.80(\pm 0.23)\pi_4 + 5.69$ $n = 7, r = 0.906, \quad F = 23.0$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** No correlation was found between 5-HT3 affinity (pKi) and p (r=0.132), but a better relationship exists with sm (r=0.760) (eq 1). Interestingly, if compound 4 is excluded, r=0.870

Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	Di-substituted compounds
Mode of Action	Binder
QSAR Model 1	$pK_i = 2.59(\pm 0.59)\sigma_m + 1.38(\pm .24)\pi_4 + 5.52$ $n = 18, r = 0.852, \quad F = 19.9$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** No correlation was found between 5-HT3 affinity (pKi) and p (r=0.132), but a better relationship exists with sm (r=0.760) (eq 1). Interestingly, if compound 4 is excluded, r=0.870.
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	Lipophilic 3-position substituents
Mode of Action	Binder
QSAR Model 1	$pK_i = 2.48(\pm 0.90)\sigma_m + 1.27(\pm 0.25)\pi_4 - 2.40(\pm .55)I_4 + 5.60$ $n = 21, r = 0.824, \quad F = 11.9$
QSAR Model 2	$pK_i = -0.68(\pm 0.15)P + 2.04(\pm 0.84)^8\chi_P + 0.39(\pm 0.05)\mathrm{SsCl} + 0.012(\pm 0.008)\mathrm{Vol} + 8.53$ $n = 24, \quad r = 0.908, \quad F = 22.3$
QSAR Model 3	$pK_i = -125.9(\pm 27.9)\mathrm{SpcPol} + 1.69(\pm 0.44)^8\chi_P + 0.39(\pm 0.05)\mathrm{SsCl} + 8.53$

	$n = 24, r = 0.902 \;\; F = 29.2$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** I4 was set at 0 for 4-position substituents with a Verloop B2 value16 of <2.5, and I4=1 for substituents where B2 >2.5. 3-position substituent 4-position substituent P is the polarizability of the molecule, $8\chi_P$ is the simple 8th order chi index, SsCl is the sum of all (–Cl) E-State values in the molecule, and Vol=the molecular volume. The $8\chi_P$ descriptor is a count of paths of eight bonds; substitution at one of the aryl meta positions by a monoatomic substituent would be expected to add an additional path. specific polarizability (SpcPol)=P/Vol
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	Lipophilic 4-position substituents
Mode of Action	Binder
QSAR Model 1	$\mathrm{p}K_\mathrm{i} = 2.48(\pm0.90)\sigma_\mathrm{m} + 1.27(\pm0.25)\pi_4 \; - 2.40(\pm.55)\mathrm{I}_4 + 5.60$ $n = 21, r = 0.824, \;\; F = 11.9$
QSAR Model 2	$\mathrm{p}K_\mathrm{i} = -0.68(\pm0.15)P + 2.04(\pm0.84)^8\chi_\mathrm{P} \; + 0.39(\pm0.05)\mathrm{SsCl} + 0.012(\pm0.008)\mathrm{Vol} + 8.53$ $n = 24, \quad r = 0.908, \quad F = 22.3$
QSAR Model 3	$\mathrm{p}K_\mathrm{i} = -125.9(\pm27.9)\mathrm{SpcPol} + 1.69(\pm0.44)^8\chi_\mathrm{P} \; + 0.39(\pm0.05)\mathrm{SsCl} + 8.53$ $n = 24, r = 0.902 \;\; F = 29.2$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** I4 was set at 0 for 4-position substituents with a Verloop B2 value16 of <2.5, and I4=1 for substituents where B2 >2.5. 3-position substituent 4-position substituent P is the polarizability of the molecule, $8\chi_P$ is the simple 8th order chi index, SsCl is the sum of all (–Cl) E-State values in

	the molecule, and Vol=the molecular volume. The $8\chi_P$ descriptor is a count of paths of eight bonds; substitution at one of the aryl meta positions by a monoatomic substituent would be expected to add an additional path. specific polarizability (SpcPol)=P/Vol
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical Type	Arylbiguanide derivatives
Mode of Action	Binder
QSAR Model 1	$pK_i = -0.64(\pm0.14)P + 2.74(\pm0.53)^8\chi_P + 0.37(\pm0.05)SsCl + 8.03$ $n = 35,\ r = 0.907,\ F = 47.7$
QSAR Model 2	$pK_i = -0.63(\pm0.13)P + 2.75(\pm0.43)^8\chi_P + 0.37(\pm0.04)SsCl + 8.03$ $n = 35,\ r = 0.907,\ F = 47.7$
QSAR Model 3	$pK_i = 1.81(\pm0.28)\Sigma\sigma + 1.02(\pm0.22)\pi_3 + 6.19$ $n = 20, r = 0.924,\ F = 49.3$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** The $8\chi_P$ descriptor is a count of paths of eight bonds; substitution at one of the aryl meta positions by a monoatomic substituent would be expected to add an additional path. specific polarizability (SpcPol)=P/Vol
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454

Target Species	Human
Chemical	Arylguanidine derivatives

Type	
Mode of Action	Binder
QSAR Model 1	$pK_i = -0.64(\pm 0.14)P + 2.74(\pm 0.53)^8\chi_P + 0.37(\pm 0.05)SsCl + 8.03$ $n = 35,\ r = 0.907,\ F = 47.7$
QSAR Model 2	$pK_i = -0.63(\pm 0.13)P + 2.75(\pm 0.43)^8\chi_P + 0.37(\pm 0.04)SsCl + 8.03$ $n = 35,\ r = 0.907,\ F = 47.7$
QSAR Model 3	$pK_i = 1.81(\pm 0.28)\Sigma\sigma + 1.02(\pm 0.22)\pi_3 + 6.19$ $n = 20,\ r = 0.924,\ F = 49.3$
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: **MoDel** and **e-dragon** The $8\chi_P$ descriptor is a count of paths of eight bonds; substitution at one of the aryl meta positions by a monoatomic substituent would be expected to add an additional path. specific polarizability (SpcPol)=P/Vol
Reference	Arylguanidine and Arylbiguanide Binding at 5-HT3 Serotonin Receptors: A QSAR Study. *Bioorganic & Medicinal Chemistry* 11 (2003) 4449–4454