

Target Name	Estrogen receptor beta
Target TTD ID	TTDS00250

Target Species	Human
Chemical Type	Tetrahydroisoquinoline derivatives
Mode of Action	Modulator
QSAR Model 2	$[pIC_{50}]_{\beta}^{RLB} = -0.629(\pm 0.637)S_1 - 0.057(\pm 0.013)MR + 8.192$ $n = 21, R_a^2 = 0.796, R^2 = 0.817, R = 0.904,$ $F = 40.1 \text{ (df 2, 18)}, s = 0.205, AVRES = 0.147,$ $Q^2 = 0.768, SDEP = 0.213, S_{PRESS} = 0.231, Pres_{av} = 0.169$
Molecular Descriptor	<p>Access the following web-servers to compute molecular descriptors: MoDel and e-dragon</p> <p>Hydrophobicity ($\log P$) and molar refractivity (MR), Electrotopological state (E-state), mathematically defined as:</p> $S_i = I_i + \Delta I_i$ $I = \left[\left(\frac{Z}{N} \right)^2 \delta^V + 1 \right] / \delta \text{ and } \Delta I_i = \sum (I_i - I_j) / r_{ij}^2$ <p>I is the intrinsic state of an atom, ΔI_i is the perturbation effect, N is the principal quantum number, δ is the number of sigma electrons on the atom (excluding those bonding to hydrogen), δ^V is the number of valence electrons (excluding those bonding to hydrogen), i and j are serial numbers of atoms and r_{ij} is the shortest graph distance between two atoms i and j plus one.</p>
Reference	QSAR of estrogen receptor modulators: exploring selectivity requirements for ER_{α} versus ER_{β} binding of tetrahydroisoquinoline derivatives using E-state and physicochemical parameters.

