## Therapeutic Targets Database





Target Name	TNF-alpha converting enzyme (TACE)
Target TTD ID	TTDR00847

Target Species	Human					
Chemical Type	Anthranilic acid derivatives					
Mode of Action	Inhibitor					
QSAR Model 1	$\log(1/\text{IC}_{50}) = 0.637(\pm 0.229)I_{4,\text{Br}} - 0.163(\pm 0.084)\log P + 7.156(\pm 0.248)$ $n = 16, r = 0.898, r_{\text{cv}}^2 = 0.69, s = 0.20, F_{2,13} = 27.14(6.70)$					
QSAR Model 2	$\log(1/\text{IC}_{50}) = 0.763(\pm 0.188)I_{4,\text{Br}} - 0.100(\pm 0.063)\log P + 6.767(\pm 0.121)$ $n = 19, r = 0.907, r_{\text{cv}}^2 = 0.75, s = 0.16, F_{2,14} = 37.28(6.51)$					
QSAR Model 3	$\begin{aligned} \log(1/\text{IC}_{50}) &= 0.491(\pm 0.258)I_{1,\text{CC}} + 0.429(\pm 0.280)I_{4,\text{Br}} \\ &- 0.891(\pm 0.309)I_{1,\text{N}} - 0.284(\pm 0.122)\log P + 7.457(\pm 0.342) \\ n &= 18, r = 0.905, r_{\text{cv}}^2 = 0.64, s = 0.19, \ F_{4,13} = 14.79(5.20) \end{aligned}$					
Molecular Descriptor	Access the following web-servers to compute molecular descriptors: MoDel and e-dragon  I1 stands for R1-substituents and has a value of unity for R1 = OCH2Ph and zero for others,  I2 stands for R2-substituents and has a values of unity for R2 = CH2-3-pyridyl group and zero for others,  I3 stands for R3-substituents and is equal to 1 for R3 = an aromatic substituent and zero otherwise,  I4, which stands for R4-substituents also has a value of unity for R4 = an aromatic moiety and zero for others.					
Reference	A quantitative structure–activity relationship study on some series of anthranilic acid-based matrix metalloproteinase inhibitors. <i>Bioorganic &amp; Medicinal Chemistry</i> 13 (2005) 5454–5462					