



Homework 7

Medicinal Chemistry 1

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- 1-** The difference between two structures in one side is NH₂ – Amino Group- for structure 1 (S1) and CH₃CH₂- Ethyl Group- for Structure 2 (S2), so for the S1 NH₂ make Hydrogen Bond and fit Cholinergic Receptor. On the other hand, S2 CH₃CH₂ consider as big molecule, then do Steric Hindrance.
- 2-** Functional group for Isoprenaline make it selective for B-receptors, and free catechol OH keep it susceptible to Enzymatic Metabolism (This information from Chegg Website) . From SAR the existence of OH in the molecule can form a H-Bond –Two Hydrogen bond- On the other hand, inactive metabolite one of OH convert to methylated and this will not form H-Bone, and this mean the other one OH will form H-Bond only and hence B-receptor mechanism fails.
- 3-** Tamoxifen is widely used as Breast Cancer Therapeutic and Preventative Agent, because it can form 2 H-Bond by Phenols, and Hydrophobic Carbon Skeleton form Van Der Waals and Hydrophobic interactions with other regions.