

GalR2 is a human galanin receptor found within the spinal cord. When active, it extends intracellularly and extracellularly. Cym2053, a novel anticonvulsant, is a positive allosteric modulator that acts on GalR2, produces anticonvulsant effects in mice. Cym2053 enhances production of IP3, increasing the concentration of the orthostatic agonists galanin, galnon, and galmic. My model is a 3d representation of the conformational change GalR2 undergoes when Cym2053 binds, showing the extension of the receptor into the extracellular domain and intracellular domain. The allosteric binding site and PAM are both represented in the model and can be used to show how the receptor is activated by increase in orthostatic agonists.