

Theoretical Study of Carbonic Anhydrase-Ii Inhibitors for Treatment of Glaucoma

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Abstract : Glaucoma disease is a progressive degenerative optic neuropathy, with irreversible visual field deficits and high eye pressure being one of the risk factors. Sulfonamides are carbonic anhydrase-II inhibitors that aim to decrease the secretion of aqueous humor by direct inhibition of this enzyme at the level of the ciliary processes. These drugs present undesirable effects that are difficult to accept by the patient. In our study, we are interested in the inhibition of carbonic anhydrase-II by different natural ligands (curcumin analogues) using molecular modeling methods using molecular operating environment (MOE) software to predict their interaction with this enzyme.

Keywords : carbonic anhydrase-II, curcumin analogues, drug research, molecular modeling

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