Abstract

Malfunctioning of synaptic vesicle in the absence of some essential regulatory proteins causes a significant decrease in the level of neurotransmitters like gamma-amino butyric acid (GABA) leading to epilepsy. In the present work, GABA receptor associated protein (GABARAP), being the major inhibitory neurotransmitter receptor from C. elegans, is investigated for its efficacy with various antiepileptic drugs. These drugs interact with the binding site of GABA receptor and regain the normal level of the inhibitory neurotransmitter, GABA. These inhibitors play a crucial role in controlling the expression of the neurotransmitter receptor at the postsynaptic membrane. Our results show that out of the various drugs docked at the binding site, Vigabatrin and Pregablin came up with the highest score thereby proving them to be effective in the treatment of the neurological disorder.
References

In silico Analysis of Binding Interaction of Antiepileptic Drugs with GABA Receptor Associated Protein of Caenorhabditis elegans

for nematode biology and genomics, Nucleic Acids Res. , 32 (Database issue), D411–D417.

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