## Open Peer Review on Qeios

## Flurazepam

National Cancer Institute

## Source

National Cancer Institute. <u>Flurazepam</u>. NCI Thesaurus. Code C62030.

A member of the benzodiazepines and a long-acting depressor of the central nervous system (CNS) with sedative and hypnotic effects. Flurazepam binds to a specific site on the benzodiazepine-gamma-aminobutyric acid (GABA)-A-chloride ionophore receptor complex located on the neuronal membrane. Binding causes an allosteric modification of the receptor thereby enhancing the affinity of GABA to the receptor leading to an increase in the frequency of chloride-channel opening events, which leads to an increase in chloride ion conductance, neuronal hyperpolarization, inhibition of the action potential, and a decrease in neuronal excitability. By modulating binding of the GABA inhibitory neurotransmitter to GABA-A receptors in the ascending reticular activating system, flurazepam blocks arousal of the cortical and limbic system, thereby exerting its sedative and hypnotic effect.