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Dexmedetomidine

National Cancer Institute

Source

National Cancer Institute. *Dexmedetomidine*. NCI Thesaurus. Code C47479.

An imidazole derivate and active d-isomer of medetomidine with analgesic, anxiolytic and sedative properties. Dexmedetomidine selectively binds to presynaptic alpha-2 adrenoceptors located in the brain, thereby inhibiting the release of norepinephrine from synaptic vesicles. This leads to an inhibition of postsynaptic activation of adrenoceptors, which inhibit sympathetic activity, thereby leading to sedation and anxiolysis. The analgesic effect of this agent is mediated by binding to alpha-2 adrenoceptors in the spinal cord.