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# Casopitant

National Cancer Institute

## Source

National Cancer Institute. *Casopitant*. NCI Thesaurus. Code C71635.

A centrally-acting neurokinin 1 (NK1) receptor antagonist with antidepressant and antiemetic activities. Casopitant competitively binds to and blocks the activity of the NK-receptor, thereby inhibiting NK1-receptor binding of the endogenous tachykinin neuropeptide substance P (SP), which may result in antiemetic effects. SP is found in neurons of vagal afferent fibers innervating the brain-stem nucleus tractus solitarius and the area postrema, which contains the chemoreceptor trigger zone (CTZ), and may be elevated in response to chemotherapy. The NK-receptor is a G-protein receptor coupled to the inositol phosphate signal-transduction pathway and is found in both the nucleus tractus solitarius and the area postrema.