Donepezil (E 2020) is a specific and potent AChE inhibitor for bAChE and hAChE with IC50 of 8.12 nM and 11.6 nM, respectively.

**Pathways:** Neuronal Signaling; **Target:** AChE

Donepezil inhibits the carbachol-stimulated increase in intracellular Ca2+ concentration in human SHSY5Y neuroblastoma cells in a concentration dependent manner, indicating that Donepezil have muscarinic antagonist activity. Intraperitoneal administration of Donepezil in rats produces a dose dependent increase in salivation and tremor, which are overt cholinergic behavioural signs, with an ED50 of 6 μmol/kg. Donepezil is found to be somewhat less potent with an ED50 of 50 μmol/kg following oral administration [2]. A recent study shows that Donepezil can protect human umbilical vein endothelial cells (HUVECs) again...

**References:**

