Product Name: Zolpidem

CAS No.: 82626-48-0

Cat. No.: HY-17441

MWT: 307.39

Formula: C19H21N3O

Purity: >98%

Solubility: DMSO

Mechanisms: Pathways: Membrane Transporter/Ion Channel; Target: GABA Receptor
Pathways: Neuronal Signaling; Target: GABA Receptor

Biological Activity:
Zolpidem (SL 800750) is an inhibitory neurotransmitter, by binding to GABA\(\alpha\) receptors at the same location as benzodiazepines.

IC50 Value: 75 nM (EC50)[1]

Target: GABA\(\alpha\) receptor

in vitro: All granule cell GABA\(\alpha\) currents were uniformly sensitive to Zn\(\text{2+}\) (IC50 = 29 microM), diazepam (EC50 = 158 nM), zolpidem (EC50 = 75 nM), and dimethoxyethyl-beta-carboline-3-carboxylate (IC50 = 60 nM) [1]. The kinetic profile for zolpidem metabolite formation by each individual cytochrome was combined with estimated relative abundances based on immunological quantification, yielding projected contributions to net intrinsic clearance of: 61% for 3 A4, 22% for 2C9, 14% for 1A2, and less than 3% for 2D6 and 2C19 [2].

in vivo: Studying alpha1(H101R) mice, which possess zolpidem-insensitive alpha(1)-GABA(A) receptors, we show that the sedative action of zolpidem is exclusively mediated ...

References: