Product Name: VX-765
CAS No.: 273404-37-8
Cat. No.: HY-13205
MWt: 509.00
Formula: C24H33ClN4O6
Purity: >98%

Solubility: DMSO: ≥ 45 mg/mL

Mechanisms:
Pathways: Immunology/Inflammation; Target: Caspase 1

Biological Activity:
VX-765 (Belnacasan) is a potent and selective inhibitor of caspase-1 with Ki of 0.8 nM.
IC50 value: 0.8 nM [1]
Target: caspase-1
in vitro: VX-765 is an orally absorbed prodrug of VRT-043198, which exhibits potent inhibition against ICE/caspase-1 and caspase-4 with Ki of 0.8 nM and less than 0.6 nM, respectively. And VRT-043198 also inhibits IL-1β release from both PBMCs and whole blood with IC50 of 0.67 μM and 1.9 μM, respectively [1].
in vivo: In collagen-induced arthritis mouse model, VX-765 (200 mg/kg) inhibits LPS-induced IL-1β production by about 60%, and results in a dose-dependent, statistically significant reduction in the inflammation scores and effective protection from joint changes [1]. In vivo, VX-765 blocks kindling epileptogenesis in rats by preventing IL-1β increase in forebrain astrocytes without significant effect on afterdischarge duration [2].

References:
[3]. Akin D, et al. IL-1β is induced in reactive astrocytes in the somatosensory cortex of rats with genetic absence epilepsy at the onset of spike-and-wave discharges, and contributes to their occurrence. Neurobiol Dis. 2011, 44(3), 259-269.
[4]. Stack...