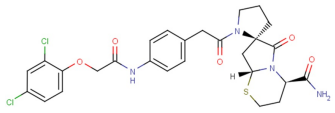
# Data Sheet (Cat.No.T16937)

TargetMol
A DRUG SCREENING EXPERT

ST 2825

## Chemical Properties



| | |
|---|---|
| CAS No.: | 894787-30-5 |
| Formula: | C27H28Cl2N4O5S |
| Molecular Weight: | 591.51 |
| Appearance: | N/A |
| Storage: | 0-4℃ for short term (days to weeks), or -20℃ for long term (months). |

## Biological Description

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|---|---|
| Description | ST 2825 is a specific MyD88 dimerization inhibitor. ST2825 inhibition of IL-1β-mediated activation of NF-κB transcriptional activity. |
| Targets($IC_{50}$) | MyD88: None |
| In vitro | ST2825 blocks IL-1R/TLR signaling by interfering with MyD88 homodimerization. ST2825 inhibits this interaction in a concentration-dependent manner with ~40% inhibition of dimerization at ST2825 (5 μM) and 80% inhibition at ST2825 (10 μM ) [1]. |
| In vivo | ST2825 dose-dependently inhibits IL-1β-induced production of IL-6 in treated mice after oral administration. ST2825 exerts a significant inhibition of IL-1β-stimulated production of IL-6 at 100 and 200 mg/kg. The animals are administered orally with the appropriate vehicles or ST2825 at doses ranging from 50 to 200 mg/kg, 5 min prior to i.p. injection with 20 μg/kg IL-1β [1]. |

## Solubility Information

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|---|---|
| Solubility | DMSO: 100 mg/mL (169.06 mM)<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.691 mL | 8.453 mL | 16.906 mL |
| 5 mM | 0.338 mL | 1.691 mL | 3.381 mL |
| 10 mM | 0.169 mL | 0.845 mL | 1.691 mL |
| 50 mM | 0.034 mL | 0.169 mL | 0.338 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Loiarro M, et al. Pivotal advance: inhibition of MyD88 dimerization and recruitment of IRAK1 and IRAK4 by a novel peptidomimetic compound. J Leukoc Biol. 2007 Oct;82(4):801-10.
2. Fantò N, et al. Design, Synthesis, and In Vitro Activity of Peptidomimetic Inhibitors of Myeloid Differentiation Factor 88. J Med Chem. 2008 Mar 13;51(5):1189-202.
3. Van Tassell BW, et al. Pharmacologic Inhibition of Myeloid Differentiation Factor 88 (MyD88) Prevents Left Ventricular Dilation and Hypertrophy After Experimental Acute Myocardial Infarction in the Mouse. J Cardiovasc Pharmacol. 2010 Apr;55(4):385-90.
4. Zhang HS, et al. Inhibition of myeloid differentiation factor 88(MyD88) by ST2825 provides neuroprotection after experimental traumatic brain injury in mice. Brain Res. 2016 Jul 15;1643:130-9.
5. Wang N, et al. Myeloid differentiation factor 88 is up-regulated in epileptic brain and contributes to experimental seizures in rats. Exp Neurol. 2017 Sep;295:23-35.
6. Brad Griesenauer, et al. ST2/MYD88 signaling is a therapeutic target alleviating murine acute graft-versus-host disease sparing T regulatory cell function. Indiana University. May 2018.



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