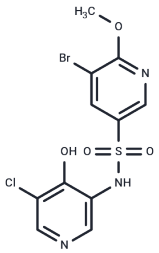
Data Sheet (Cat.No.T39115)

TargetMol

ABR-238901

Chemical Properties



CAS No. : 1638200-22-2

Formula: C11H9BrClN3O4S

Molecular Weight: 394.63

Storage: Store under nitrogen
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	ABR-238901 is an oral, active S100A8/A9 blocker that inhibits the interaction of S100A8/A9 with its receptors RAGE(receptor for advanced glycation end products) and TLR4 (toll-like receptor 4). ABR-238901 has potential as a compound for the treatment of myocardial infarction (MI).
Targets(IC50)	TLR
In vivo	ABR-238901, given at a dose of 30 mg/kg/day through gavage over a period of 3 weeks, demonstrates reduced angiogenesis and lowered levels of IL6 and IL10 in MDSCs [1]. When ABR-238901 (30 mg/kg/day via gavage) is combined with Bortezomib (0.6 mg/kg via subcutaneous injection, twice a week), it leads to a decreased tumor burden compared to using either agent alone [1]. In C57BL/6NRJ mice with myocardial ischemia resulting from permanent coronary artery ligation, ABR-238901 administered at a dose of 30 mg/kg via intraperitoneal injection for the initial 3 days, followed by continuous oral administration daily for 21 days, induces progressive deterioration of cardiac function and accelerates left ventricular remodeling. However, when ABR-238901 is administered during the first 3 days post-myocardial infarction, it limits inflammatory damage and promotes a reparative environment [2].

Solubility Information

Solubility	H2O: 0.1 mg/mL (0.25 mM),Sonication and heating to 60°C are recommended. DMSO: 30 mg/mL (76.02 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.07 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.534 mL	12.6701 mL	25.3402 mL
5 mM	0.5068 mL	2.534 mL	5.068 mL
10 mM	0.2534 mL	1.267 mL	2.534 mL
50 mM	0.0507 mL	0.2534 mL	0.5068 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kim De Veirman, et al. Extracellular S100A9 Protein in Bone Marrow Supports Multiple Myeloma Survival by Stimulating Angiogenesis and Cytokine Secretion. Cancer Immunol Res. 2017 Oct;5(10):839-846.
Goran Marinković, et al. S100A9 Links Inflammation and Repair in Myocardial Infarction. Circ Res. 2020 Aug 14;127 (5):664-676.
A. Schiopu, et al. Short-term blockade of the S100A8/A9 alarmin in the immediate post-myocardial infarction period inhibits acute myocardial inflammation and preserves myocardial repair. European Heart Journal,2017;38 (1).