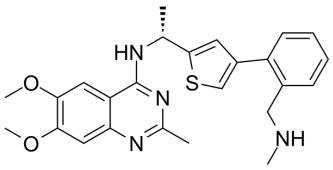
BAY-293

Cat. No.:	HY-114398
CAS No.:	2244904-70-7
Molecular Formula:	$C_{25}H_{28}N_4O_2S$
Molecular Weight:	448.58
Target:	Ras
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 125 mg/mL (278.66 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2293 mL	11.1463 mL	22.2926 mL
5 mM	0.4459 mL	2.2293 mL	4.4585 mL
10 mM	0.2229 mL	1.1146 mL	2.2293 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.64 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BAY-293, a valuable chemical probe, blocks RAS activation via disruption of the KRAS-SOS1 interaction with an IC_{50} of 21 nM. BAY-293 is a potent inhibitor of Son of Sevenless 1 (SOS1). SOS1 is the guanine nucleotide exchange factor (GEF) and activator of RAS[1].

IC_{50} & Target

KRAS-SOS1
21 nM (IC_{50})

In Vitro

BAY-293 inhibits the activation of RAS in HeLa cells, with IC_{50} values in the submicromolar range[1].
BAY-293 (595 nM-3580 nM; 72 hours) shows efficient antiproliferative activity against wild-type KRAS cell lines (K-562, MOLM-

13) and cell lines with $KRAS^{G12C}$ mutation (NCI-H358, Calu-1)[1].

BAY-293 efficiently inhibits pERK levels in K-562 cells after incubation for 60 min without affecting total protein levels of ERK [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	K-562, MOLM-13, H358 and Calu-1 cell lines
Concentration:	595-3580 nM
Incubation Time:	72 hours
Result:	IC_{50}s of 1,090±170 nM, 995±400 nM, 3,480±100 nM and 3,190±50 nM for K-562, MOLM-13, H358 and Calu-1 cells, respectively.

CUSTOMER VALIDATION

- Signal Transduct Target Ther. 2022 Sep 12;7(1):317.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Hillig RC, et al. Discovery of potent SOS1 inhibitors that block RAS activation via disruption of the RAS-SOS1interaction. Proc Natl Acad Sci U S A. 2019 Feb 12;116(7):2551-2560.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA