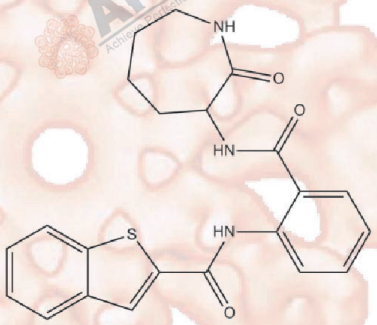
Product Data Sheet

ANA 12



Cat. No.:	B5712
CAS No.:	219766-25-3
Formula:	C22H21N3O3S
M.Wt:	407.49
Synonyms:	
Target:	Tyrosine Kinase
Pathway:	Trk
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; insoluble in EtOH; ⩾10.175 mg/mL in DMSO with gentle warming

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.4540 mL	12.2702 mL	24.5405 mL
5 mM	0.4908 mL	2.4540 mL	4.9081 mL
10 mM	0.2454 mL	1.2270 mL	2.4540 mL

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

Biological Activity

Shortsummary	TrkB receptor antagonist
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	PC12-TrkB cell lines
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0-100 μM for 3 days

	Applications:	In the TrkB-expressing cells, ANA-12 prevented brain-derived neurotrophic factor-induced neurite outgrowth at concentrations as low as 10 nM. At concentrations up to 10–100 μM, ANA-12 completely abolished the effects of brain-derived neurotrophic factor, and no single neurite or branching could be observed.
In Vivo	**Animal experiment**	
	Animal models:	Mice
	Dosage form:	0.5 mg/kg
	Applications:	Mice administered ANA-12 demonstrated reduced anxiety- and depression-related behaviors on a variety of tests predictive of anxiolytic and antidepressant properties in humans.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Zhao J, Du J, et al. "Activation of cardiac TrkB receptor by its small molecular agonist 7,8-dihydroxyflavone inhibits doxorubicin-induced cardiotoxicity via enhancing mitochondrial oxidative phosphorylation." Free Radic Biol Med. 2019 Jan;130:557-567.PMID:30472367

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References

[1] Cazorla M, Prémont J, Mann A, et al. Identification of a low-molecular weight TrkB antagonist with anxiolytic and antidepressant activity in mice. J Clin Invest, 2011, 121(5): 1846-1857.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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