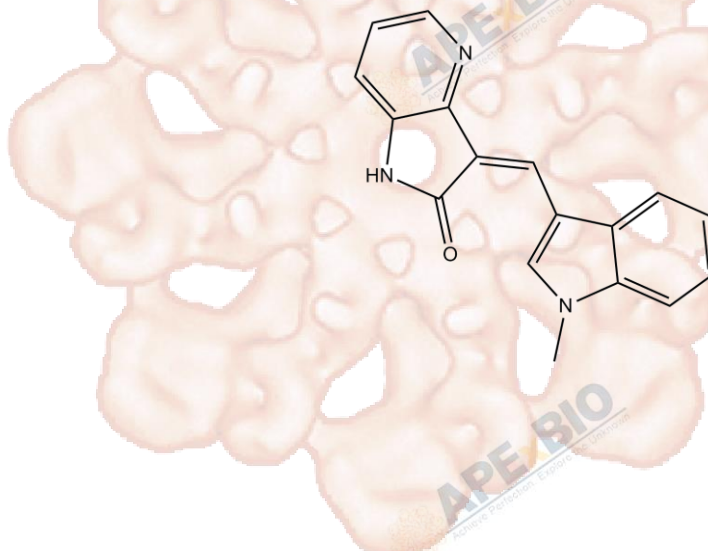


# Product Data Sheet

## GW441756

<b>Cat. No.:</b>	B2297
<b>CAS No.:</b>	504433-23-2
<b>Formula:</b>	C <sub>17</sub> H <sub>13</sub> N <sub>3</sub> O
<b>M.Wt:</b>	275.3
<b>Synonyms:</b>	
<b>Target:</b>	Tyrosine Kinase
<b>Pathway:</b>	Trk
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; insoluble in EtOH; ≥13.75 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	3.6324 mL	18.1620 mL	36.3240 mL
	<b>5 mM</b>	0.7265 mL	3.6324 mL	7.2648 mL
	<b>10 mM</b>	0.3632 mL	1.8162 mL	3.6324 mL

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

### Biological Activity

Shortsummary

TrkA inhibitor, potent and selective

IC<sub>50</sub> & Target

2 nM (TrkA), >7 μM (CDK2), >12 μM (C-Raf-1)

In Vitro

#### Cell Viability Assay

Cell Line: human muscle sarcoma cancer cell line HTB114

Preparation method: The solubility of this compound in DMSO is >13.8mg/mL. 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: IC<sub>50</sub> = 2nM

	Applications:	In human muscle sarcoma cancer cell line HTB114, GW441756 dose-dependently decreased neoplastic proliferation and significantly increased apoptosis in a dose-dependent way. GW441756 also increased the level of caspase-3, which then led to apoptosis.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Alzheimer's disease (AD) mouse model, PDAPP (J20) mice
	Dosage form:	10 mg/kg/day (subcutaneous injection, Sub-Q); 5 days
	Applications:	In Alzheimer's disease (AD) mouse model, PDAPP (J20) mice, GW441756 at 10 mg/kg increased the level of sA $\beta$ PP $\alpha$ and increased the sA $\beta$ PP $\alpha$ to A $\beta$ 42 ratio to 1.85 times over control. At this dose, GW441756 gave measurable brain levels with a maximum brain concentration (C <sub>max</sub> , 1 h) of ~1 $\times$ IC <sub>50</sub> (50 nM).
	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. Cao CY, Zhang CC, et al. "Sarcodonin G Derivatives Exhibit Distinctive Effects on Neurite Outgrowth by Modulating NGF Signaling in PC12 Cells." ACS Chem Neurosci. 2018 Apr 27. PMID:29653489

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## References

- [1]. Montagnoli C, Pistilli A, Stabile A M, et al. Anti-proliferative effects of GW441756, a novel inhibitor of NGF receptor tyrosine kinase a (TRKA), in human sarcoma. Italian Journal of Anatomy and Embryology, 2010, 115(1/2): 117.
- [2]. Zhang Q#1, Descamps O#1, Hart MJ1, et al. Paradoxical effect of TrkA inhibition in Alzheimer's disease models. J Alzheimers Dis. 2014;40(3):605-617.

## 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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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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**APEX BIO Technology**

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