

# Product Data Sheet

## KW 2449

Cat. No.:	A4123
CAS No.:	1000669-72-6
Formula:	C <sub>20</sub> H <sub>20</sub> N <sub>4</sub> O
M.Wt:	332.4
Synonyms:	
Target:	Tyrosine Kinase
Pathway:	FLT3
Storage:	Store at -20°C

## Solvent & Solubility

insoluble in EtOH; insoluble in H<sub>2</sub>O; ≥16.6 mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Concentration	Mass		
			Solvent	1mg	5mg
			1 mM	3.0084 mL	15.0421 mL
		5 mM		0.6017 mL	3.0084 mL
		10 mM		0.3008 mL	1.5042 mL
					3.0084 mL

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

## Biological Activity

Shortsummary	Multikinase inhibitor
IC <sub>50</sub> & Target	6.6 nM (FLT3), 1 nM (FLT3 (D835Y)), 14 nM (Abl), 4 nM (Abl (T315I)), 48 nM (Aurora A), 36 nM (FGFR1)
<b>Cell Viability Assay</b>	
Cell Line:	MOLM-13 cells
In Vitro	<p>Preparation method: The solubility of this compound in DMSO is &gt;16.6mg/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.</p> <p>Reacting conditions: 0.01-0.3 µM; 24, 48, and 72 h; 37°C</p>

	<p>Applications:</p> <p>In MOLM-13 cells, KW-2449 inhibited the phosphorylation of FLT3 (P-FLT3) and its downstream molecule phospho-STAT5 (P-STAT5) in a dose-dependent way. Furthermore, KW-2449 increased the percentage of cells in the G1 phase and reduced the percentage of cells in the S phase, resulting in the increase of apoptotic cell population.</p>
<b>Animal experiment</b>	
Animal models:	SCID mice bearing the subcutaneous MOLM-13 tumor
Dosage form:	2.5, 5.0, 10, and 20 mg/kg; orally administered; twice a day for 14 days
Applications:	In SCID mice bearing the subcutaneous MOLM-13 tumor, KW-2449 completely reduced the levels of P-FLT3 and P-STAT5 in the tumor from 4 to 12 hours. While the phosphorylation of FLT3 and STAT5 returned to almost the basal level at 24 hours. KW-2449 showed a potent and significant antitumor effect in a dose-dependent way.
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

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

[1] Shiotsu Y, Kiyoi H, Ishikawa Y, Tanizaki R, Shimizu M, Umebara H, Ishii K, Mori Y, Ozeki K, Minami Y, Abe A, Maeda H, Akiyama T, Kanda Y, Sato Y, Akinaga S, Naoe T. KW-2449, a novel multikinase inhibitor, suppresses the growth of leukemia cells with FLT3 mutations or T315I-mutated BCR/ABL translocation. *Blood*. 2009 Aug 20;114(8):1607-17.

## 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.

**APExBIO Technology**

**www.apexbt.com**

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

