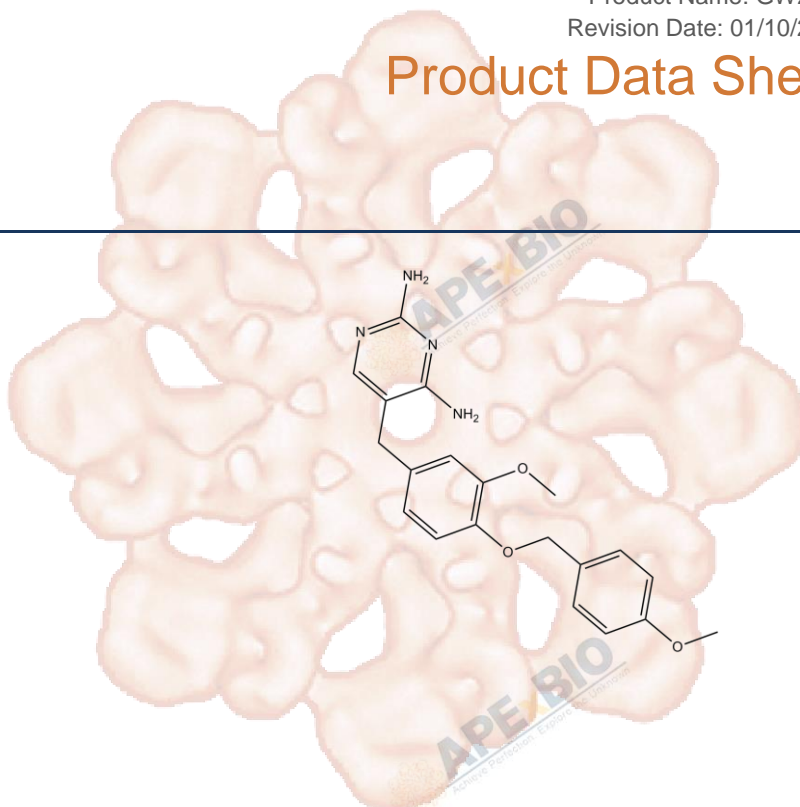


# Product Data Sheet

## GW2580

<b>Cat. No.:</b>	A1655
<b>CAS No.:</b>	870483-87-7
<b>Formula:</b>	C <sub>20</sub> H <sub>22</sub> N <sub>4</sub> O <sub>3</sub>
<b>M.Wt:</b>	366.41
<b>Synonyms:</b>	
<b>Target:</b>	Tyrosine Kinase
<b>Pathway:</b>	CSF-1R
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥36.6 mg/mL in DMSO with gentle warming; insoluble in EtOH; insoluble in H<sub>2</sub>O

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	2.7292 mL	13.6459 mL	27.2918 mL
	5 mM	0.5458 mL	2.7292 mL	5.4584 mL
	10 mM	0.2729 mL	1.3646 mL	2.7292 mL

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

### Biological Activity

Shortsummary

CFMS kinase/CSF-1R inhibitor, selective and ATP-competitive

IC<sub>50</sub> & Target

0.03 μM (cFMS kinase), 0.14 μM (CSF-1-induced monocyte growth)

In Vitro

#### Cell Viability Assay

Cell Line:	Mouse M-NFS-60 myeloid cell line and human monocytes
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- 20 μM

	Applications:	GW2580 at 1 $\mu$ M completely inhibited CSF-1-induced growth of mouse M-NFS-60 myeloid cells and human monocytes and completely inhibited bone degradation in cultures of human osteoclasts, rat calvaria, and rat fetal long bone. In contrast, GW2580 did not affect the growth of mouse NS0 lymphoblastoid cells, human endothelial cells, human fibroblasts, or five human tumor cell lines.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Xenograft mouse model with M-NFS-60 tumor cells
	Dosage form:	Orally at 20 and 80 mg/kg twice a day
	Applications:	GW2580 was dosed orally at 20 and 80 mg/kg (b.i.d.), starting 1 h before the i.p. injection of M-NFS-60 cells, and the tumor cells in the peritoneal cavity were counted 4 days later. GW2580 produced a dose-related decrease in the number of tumor cells, with the 80 mg/kg dose completely blocking tumor growth. GW2580 showed no effect on body weights taken when the animals were killed.
	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] Conway JG1, McDonald B, Parham J, Keith B, Rusnak DW, Shaw E, Jansen M, Lin P, Payne A, Crosby RM, Johnson JH, Frick L, Lin MH, Depee S, Tadepalli S, Votta B, James I, Fuller K, Chambers TJ, Kull FC, Chamberlain SD, Hutchins JT. Inhibition of colony-stimulating-factor-1 signaling in vivo with the orally bioavailable cFMS kinase inhibitor GW2580. Proc Natl Acad Sci U S A. 2005 Nov 1;102(44):16078-83.

## 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.



**APExBIO Technology**

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