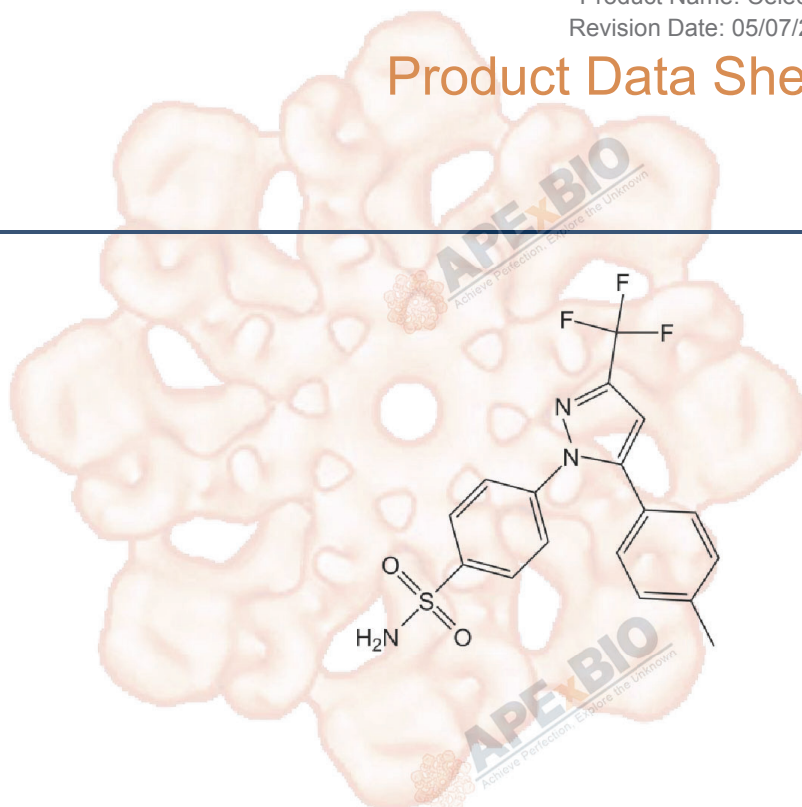


Product Data Sheet

Celecoxib

Cat. No.:	A1664
CAS No.:	169590-42-5
Formula:	C ₁₇ H ₁₄ F ₃ N ₃ O ₂ S
M.Wt:	381.37
Synonyms:	
Target:	Neuroscience
Pathway:	COX
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥16.8 mg/mL in EtOH; ≥19.07 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Mass		1mg	5mg	10mg
	Solvent	Concentration			
		1 mM	2.6221 mL	13.1106 mL	26.2213 mL
		5 mM	0.5244 mL	2.6221 mL	5.2443 mL
		10 mM	0.2622 mL	1.3111 mL	2.6221 mL

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

Biological Activity

Shortsummary

Selective cyclooxygenase-2 (COX-2) inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: A549 cells

Preparation method:

The solubility of this compound in DMSO is > 19.1 mg/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:

0 ~ 10 μM

	Applications:	In A549 cells, Celecoxib ($\leq 10 \mu\text{M}$) and PGE2 ($\leq 12.5 \mu\text{M}$) showed no effect on cell viability. However, Celecoxib reversed PGE2 ($10 \mu\text{M}$) increased migration and invasion of A549 cells.
In Vivo	Animal experiment	
	Animal models:	Mice received unilateral pneumonectomy
	Dosage form:	100 mg/kg; p.o.; q.d.
	Applications:	In mice received unilateral pneumonectomy, Celecoxib inhibited increased metastasis of A549 cells. Moreover, Celecoxib significantly inhibited the increase in PGE2 plasma level as well.
	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.

References

- [1]. Penning TD1, Talley JJ, Bertenshaw SR, Carter JS, Collins PW, Docter S, Graneto MJ, Lee LF, Malecha JW, Miyashiro JM, Rogers RS, Rogier DJ, Yu SS, Anderson GD, Burton EG, Cogburn JN, Gregory SA, Koboldt CM, Perkins WE, Seibert K, Veenhuizen AW, Zhang YY, Isakson PC. Synthesis and biological evaluation of the 1,5-diarylpyrazole class of cyclooxygenase-2 inhibitors: identification of 4-[5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzene nesulfonamide (SC-58635, celecoxib). J Med Chem. 1997 Apr 25;40(9):1347-65.
- [2]. Zhang S1, Da L1, Yang X1, Feng D1, Yin R1, Li M1, Zhang Z1, Jiang F2, Xu L3. Celecoxib potentially inhibits metastasis of lung cancer promoted by surgery in mice, via suppression of the PGE2-modulated β -catenin pathway. Toxicol Lett. 2014 Mar 3;225(2):201-7.

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. 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

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

