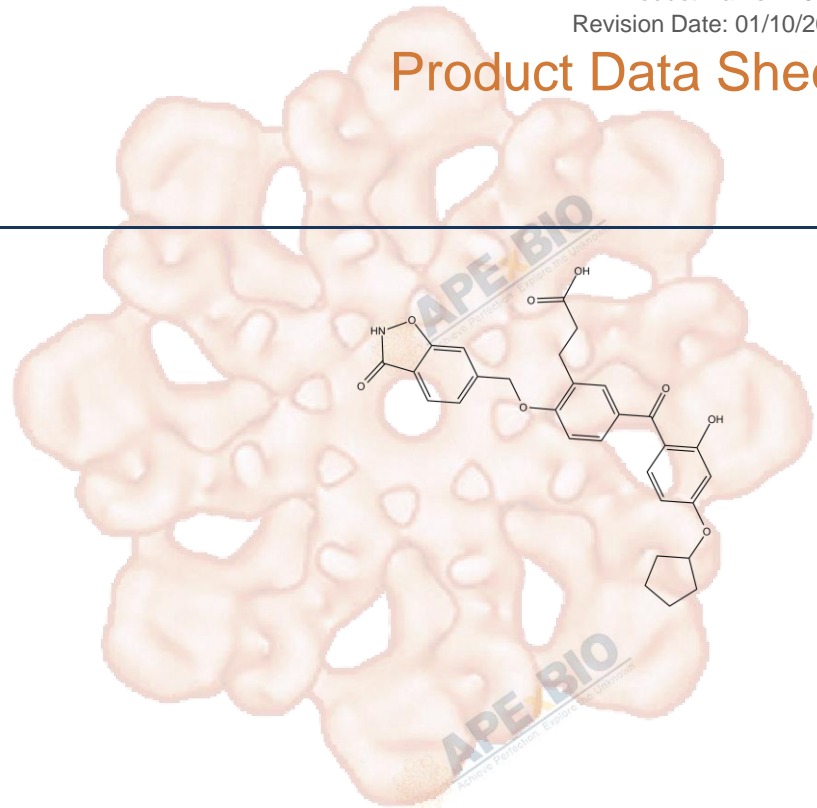


Product Data Sheet

T-5224

Cat. No.:	B4664
CAS No.:	530141-72-1
Formula:	C ₂₉ H ₂₇ NO ₈
M.Wt:	517.53
Synonyms:	
Target:	Others
Pathway:	Transcription Factors
Storage:	Store at -20°C



Solvent & Solubility

≥25.88 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		1.9323 mL	9.6613 mL	19.3226 mL
	5 mM		0.3865 mL	1.9323 mL	3.8645 mL
	10 mM		0.1932 mL	0.9661 mL	1.9323 mL

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

Biological Activity

Shortsummary

C-Fos/AP-1 inhibitor

IC₅₀ & Target

Cell Viability Assay

In Vitro

Cell Line:	Human synovial SW982 cells; human chondrocyte SW1353 cells
Preparation method:	Dissolved in DMSO. 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:	0.1, 1, 10, 100, 1000 μM.

	Applications:	In human synovial SW982 cells stimulated by IL-1 β , T-5224 inhibits the production of MMP-1, MMP-3, IL-6 and TNF α . In human chondrocyte SW1353 cells stimulated by IL-1 β , T-5224 inhibits the production of MMP-3 and MMP-13 with IC50 value of 10 μ M.
In Vivo	Animal experiment	
	Animal models:	Male DBA/1J mice with type II collagen-induced arthritis (CIA).
	Dosage form:	0.3, 1, 3, 30 mg/kg, once daily from day 21, before the onset of arthritis; administered orally.
	Applications:	T-5224 significantly inhibits the development of arthritis by 64% and 91% on day 50 at 3 and 30 mg/kg, respectively. T-5224 inhibits joint destruction and completely protects the joint from destruction at 30 mg/kg. At 30 mg/kg dose, T-5224 significantly inhibits MMP-2, MMP-3, MMP-9, MMP-13, IL-1 β , IL-6 and TNF α .
	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. Drummond RA, Swamydas M, et al. "CARD9(+) microglia promote antifungal immunity via IL-1 β - and CXCL1-mediated neutrophil recruitment." Nat Immunol. 2019 May;20(5):559-570.PMID:30996332
2. Lv SY, Cui B, et al. "Spexin/NPQ Induces Fos and Produces Antinociceptive Effect against Inflammatory Pain in the Mouse Model." Am J Pathol. 2019 Jan 19. pii:S0002-9440(18)30290-6.PMID:30664863
3. Choi Y, Rosewell KL, et al. "FOS, a Critical Downstream Mediator of PGR and EGF-signaling Necessary for Ovulatory Prostaglandins in the Human Ovary." J Clin Endocrinol Metab. 2018 Aug 16.PMID:30124866
4. Levi NJ, Wilson CW, et al. "Obesity-related cellular stressors regulate gonadotropin releasing hormone gene expression via c-Fos/AP-1." Mol Cell Endocrinol. 2018 Jul 29. pii: S0303-7207(18)30235-1.PMID:30063946
5. Chih-Wei Chen. "WNT5A induziert über eine JNK-abh?ngige Aktivierung von latentem TGF- β Fibrose." Friedrich-Alexander-Universit?t Erlangen-ürnberg.2018/01/15.

See more customer validations on www.apexbt.com.

References

- [1]. Aikawa Y, Morimoto K, Yamamoto T, et al. Treatment of arthritis with a selective inhibitor of c-Fos/activator protein-1. Nat Biotechnol, 2008, 26(7): 817-823.

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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