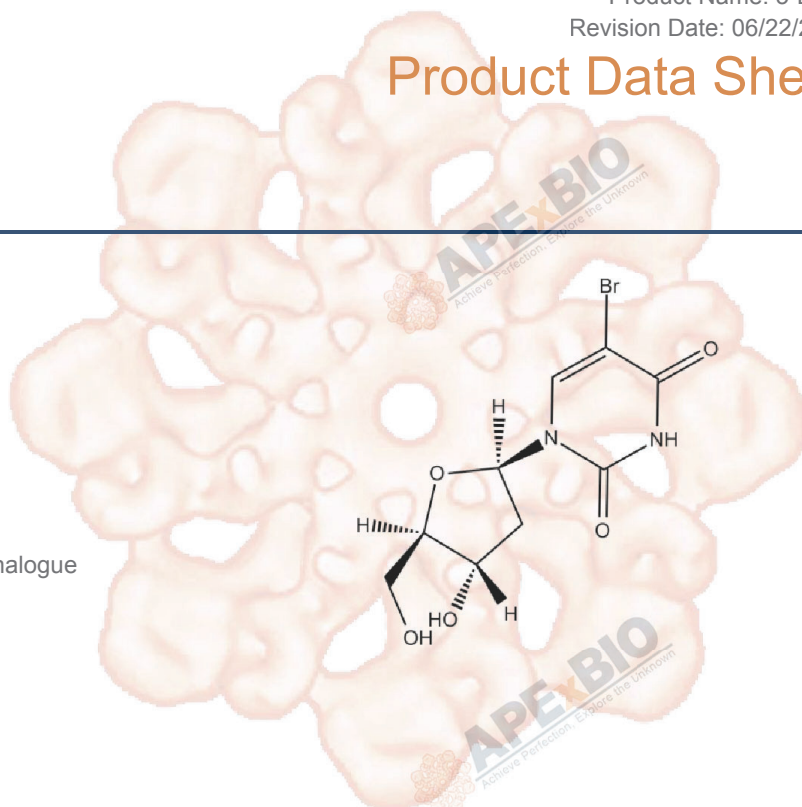


Product Data Sheet

5-BrdU

Cat. No.:	B3589
CAS No.:	59-14-3
Formula:	C ₉ H ₁₁ BrN ₂ O ₅
M.Wt:	307.1
Synonyms:	
Target:	DNA Damage/DNA Repair
Pathway:	Nucleoside Antimetabolite/Analogue
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; ≥ 11.56 mg/mL in 0.9% NS with ultrasonic; ≥ 15.35 mg/mL in DMSO; ≥ 16.23 mg/mL in H₂O with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	3.2563 mL	16.2813 mL	32.5627 mL
	5 mM	0.6513 mL	3.2563 mL	6.5125 mL
	10 mM	0.3256 mL	1.6281 mL	3.2563 mL

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

Biological Activity

Shortsummary

Synthetic thymidine analog

 IC₅₀ & Target

Cell Viability Assay

In Vitro

Preparation method:

The solubility of this compound in DMSO is >15.4mg/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:

5 µg/ml; 24 h

	Applications:	In nicotiana pith tissues, BrdU inhibited growth of pith explants, while thymidine completely reversed the inhibitory effect. The inhibition observed could be attributed to BrdU incorporation into DNA.
In Vivo	Animal experiment	
	Animal models:	Pregnant NMRI mice
	Dosage form:	25 mg/kg (5 mg/ml dissolved in 0.1 M Tris-buffered saline, pH 7.6), i.p.; between embryonic days E11 and E17.
	Applications:	In pregnant NMRI mice, a single pulse of 5-bromodeoxyuridine (BrdU) was injected between embryonic days E11 and E17 to label postmitotic neuroblasts. BrdU is an analog of Thy that is incorporated into the DNA of cells undergoing the S-phase and can be detected by polyclonal or monoclonal antibodies. Immunoreactive nuclei were detected in the adult CNS after pulses of BrdU. BrdU could be used to map neuronal birthdates.
	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] M. Durante, C. Geri, V. Nuti-Ronchi, G. Martini, E. Guillé, J. Grisvard, L. Giorgi, R. Parenti, M. Bulatti. Inhibition of Nicotiana glauca pith tissue proliferation through incorporation of 5-BrdU into SNA. Cell Differentiation, Volume 6, Issue 1, June 1977, Pages 53–63
- [2] del Rio JA, Soriano E. Immunocytochemical detection of 5'-bromodeoxyuridine incorporation in the central nervous system of the mouse. Brain Res Dev Brain Res. 1989 Oct 1;49(2):311-7.

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 APEX BIO 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

