Small	Uridine	STEMCELL [™]
Molecules	Nucleoside for RNA synthesis	Scientists Helping Scientists™ WWW.STEMCELL.COM
Catalog #100-0540	5 α	TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713 INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
100-0541	10 g	FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

Uridine is one of the five nucleosides used for RNA synthesis and as a building block for other biomolecules (Tsukimoto). Uridine 5'-diphosphate and uridine 5'-triphosphate are signaling molecules that activate the purinergic receptors (Tsukimoto). Uridine is also used as a medium supplement for culturing primary hippocampal neuron cells (François-Moutal et al.).

Molecular Name:	Uridine	
Alternative Names:	NSC 20256; 1-β-D-Ribofuranosyluracil; Uracil-1-β-D-ribofuranoside; β-Uridine	
CAS Number:	58-96-8	
Chemical Formula:	$C_9H_{12}N_2O_6$	
Molecular Weight:	244.2 g/mol	
Purity:	≥ 98%	
Chemical Name:	Uridine	
Structure:		
	HO, OH	



Properties

Physical Appearance: Storage:

Solubility:

A crystalline solid

Product stable at room temperature (15 - 25°C) as supplied. Protect product from prolonged exposure to light.
For long-term storage, store with a desiccant. Stable as supplied for 12 months from date of receipt.
PBS (pH 7.2) ≤ 20 mM
DMSO ≤ 40 mM

For example, to prepare a 10 mM stock solution in DMSO, resuspend 1 g in 409 mL of DMSO.

Prepare stock solution fresh before use. Information regarding stability of small molecules in solution has rarely been reported, however, as a general guide we recommend storage in DMSO at -20°C. Aliquot into working volumes to avoid repeated freeze-thaw cycles. The effect of storage of stock solution on compound performance should be tested for each application.



Published Applications

CANCER RESEARCH

· Uridine has been used to reduce 5-fluorouracil toxicity, without affecting its antitumor activity (Pizzorno et al.).

References

François-Moutal L et al. (2015) A membrane-delimited N-myristoylated CRMP2 peptide aptamer inhibits CaV2.2 trafficking and reverses inflammatory and postoperative pain behaviors. Pain 156(7): 1247–64.

Pizzorno G et al. (2002) Homeostatic control of uridine and the role of uridine phosphorylase: a biological and clinical update. Biochim Biophys Acta 1587(2–3): 133–44.

Tsukimoto M. (2015) Purinergic signaling is a novel mechanism of the cellular response to ionizing radiation. Biol Pharm Bull 38(7): 951-9.

Related Small Molecules

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