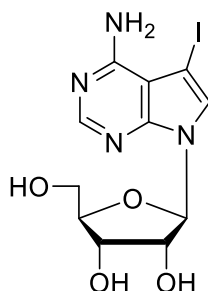


Technical Information about 5- Iodotubercidin

Update: September 21, 2018 HU



Abbreviation:

5-I-Tu

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₁ H ₁₃ N ₄ O ₄	[24386-93-4]	392.2	λ _{max} 283 nm / ε 8500 / pH 7	I 004

Name: 5- Iodotubercidin / 7- Deaza- 7- iodoadenosine

Description: 5-I-Tu is an analogue of adenosine in which the nitrogen atom in position 7 of the adenine imidazole ring (corresponds to position 5 in tubercidin) has been replaced by carbon and iodine, respectively.

Properties: 5-I-Tu is a potent inhibitor of adenosine kinase and other protein kinases such as casein kinase I and PKA.

Specification: Crystallized or lyophilized solid. Please keep in mind that equal amounts of the compound can appear very different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small volume droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ_{max}.

Purity: Typical analysis is better than 98% (HPLC / UV / 283 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 5-I-Tu has sufficient solubility in organic solvents such as DMSO or DMF (at least 30 mM). When opening the tube please make sure that no substance is lost within the cap. Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing.

Stability and Storage: 5-I-Tu has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be protected from exposure to light and should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Since adenosine has multiple tasks in every organism it is very likely that its analogues will interfere with many cell regulation processes *in vivo* as well. However, due to the rather small quantities to work with no health hazards have been reported. Nevertheless please keep in mind that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid skin contact or ingestion and allow only trained personnel to handle the product.

Our products are designed, developed and sold for research purposes only. They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

Not for drug, household or related uses!

Selected References for 5-I-Tu:

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Massilon, D.; Stalmans, W.; van de Werve, G.; Bollen, M., *Biochem. J.*, **299**, 123 - 128 (1994): "Identification of the Glycogenic Compound 5-Iodotubercidin as a General Protein Kinase Inhibitor"

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