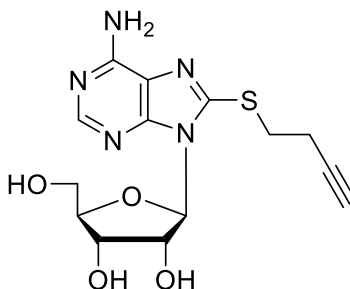


Technical Information about 8-Bu(3-yne)T-Ado

Update: March 13, 2024 ss



Abbreviation: 8-Bu(3-yne)T-Ado

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₄ H ₁₇ N ₅ O ₄ S (free acid)	[pending]	351.4 (free acid)	λ _{max} 280 nm / ε 17400 / pH 7	B 284

Name: 8- (3- Butynylthio)adenosine

Description: 8-Bu(3-yne)T-Ado is an analogue of the natural signal molecule adenosine, in which the hydrogen in position 8 of the heterocyclic nucleobase is replaced by the lipophilic 3-butynylthio moiety.

Properties: The alkyne-containing 8-Bu(3-yne)T-Ado is an analogue of adenosine and a suitable molecular tool for the copper-catalysed Huisgen azide-alkyne [3+2] cycloaddition (CuAAC), which has attracted particular interest for the introduction of reporter groups and for the labelling of various biomolecules like binding proteins of adenosine by the so-called click-chemistry technique.

Specification Crystallized or lyophilized solid. Please keep in mind that equal concentrations of the compound may look 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 / 280 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-Bu(3-yne)T-Ado has limited solubility in water (~3 - 5 mM) and good solubility in DMSO or DMF (≥ 10 mM). Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

Stability and Storage: 8-Bu(3-yne)T-Ado has sufficient stability for short term exposure to ambient temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

Toxicity and Safety: Please keep in mind, that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid contact with eyes and skin 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 8-Bu(3-yne)T-Ado: 8-Bu(3-yne)T-Ado is a new product and there are currently no references available.

Selected References for CuAAC click chemistry: General procedures for CuAAC reactions can be found in Hong et al. 2009 and Presolski et al. 2011, which can serve as a good starting point for establishing and optimising individual coupling protocols.

Presolski, S. I.; Hong, V. P.; Finn, M. G., *Curr. Protoc. Chem. Biol.*, **3**, 153 - 162 (2011): "Copper-Catalyzed Azide-Alkyne Click Chemistry for Bioconjugation"

Hong, V.; Presolski, S. I.; Ma, C.; Finn, M. G., *Angew. Chem. Int. Ed. Engl.*, **48**, 9879 - 9883 (2009): "Analysis and Optimization of Copper-Catalyzed Azide-Alkyne Cycloaddition for Bioconjugation"