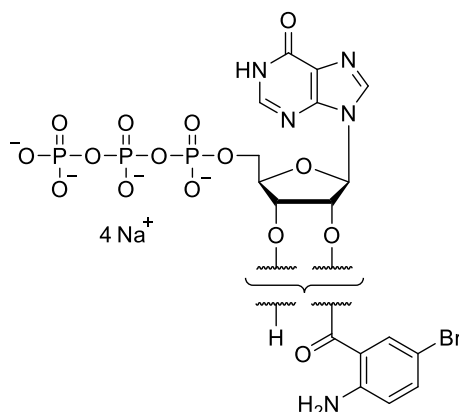


Technical Information about Br-ANT-ITP

Update: January 19, 2023ss



Abbreviation:

Br-ANT-ITP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₁₇ H ₁₉ BrN ₅ O ₁₅ P ₃ (for free acid)	[1350521-52-6]	706.2 (for free acid)	λ _{max} 248 nm / ε 15000 / pH 7	B 118

Name: 2'- / 3'- O- (5- Bromoanthraniloyl)inosine- 5'- O- triphosphate, sodium salt

Description: Br-ANT-ITP is an analogue of inosine-5'-triphosphate (ITP), where either the ribose 2' or the 3' hydroxyl group has been modified with a fluorescent bromoanthraniloyl group.

Properties: Analogue of inosine-5'-triphosphate with only moderate intrinsic fluorescence (λ_{exc} 345 nm, λ_{em} ~427nm). The fluorophore has a certain sensitivity for its environment and is supposed to change its spectral properties upon binding. Useful for research into purine triphosphate-dependent receptor proteins. Potent inhibitor of various adenylyl cyclase isoforms and soluble guanylyl cyclase (sGC).

Specification: Aqueous solution of the sodium salt (10 mM). Other salt forms of Br-ANT-ITP are available upon request. Micromolar quantities are determined by UV at λ_{max}. When opening the tube please make sure that no liquid is lost within the cap. A short spin-down in a bench centrifuge is recommended before use.

Purity: Typical purity is better than 95% (HPLC / UV / 248 nm) at time of quality control and packing. However, actual purity depends on storage and transport conditions. The product is not sterile and has not been tested for endotoxins.

Stability and Storage: Br-ANT-ITP is most stable when stored as aqueous solution in the freezer (-20° Celsius necessary, -70° recommended), however, at ambient temperature the compound slowly starts to decompose. Thus, in order to maintain its original high quality it is recommended to allow thawing only before using the product. If you will not use up the vial with one application, please aliquot the contents of the vial in order to avoid repeated freeze/thaw cycles for the rest. When making such aliquots be sure to operate quickly and to freeze the vial again as soon as possible. Exposure to bright light should be avoided.

Toxicity and Safety: Since triphosphates have multiple tasks in every organism, it is very likely that triphosphate analogues will interfere with many cell regulation processes *in vivo*. 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 Br-ANT-ITP:

Dove, S.; Danker, K. Y.; Stasch, J. P.; Kaefer, V.; Seifert, R., *Mol. Pharmacol.*, **85**, 598 - 607 (2014): "Structure/Activity Relationships of (M)ANT- and TNP-Nucleotides for Inhibition of Rat Soluble Guanylyl Cyclase α1β1"

Geduhn, J.; Dove, S.; Shen, Y.; Tang, W. J.; König, B.; Seifert, R., *J. Pharmacol. Exp. Ther.*, **336**, 104 - 115 (2011): "Bis-halogen-anthraniloyl-Substituted Nucleoside 5'-Triphosphates as Potent and Selective Inhibitors of *Bordetella pertussis* Adenylyl Cyclase Toxin"