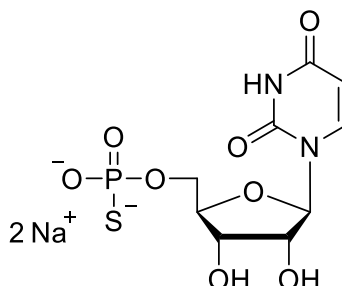


Technical Information about 5'-UMPS

Update: October 15, 2018 HU



Abbreviation: 5'-UMPS

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C ₉ H ₁₃ N ₂ O ₈ PS (for free acid)	[15548-52-4]	340.3 (for free acid)	λ _{max} 262 nm / ε 10000 / pH 7	U 006

Name: Uridine- 5'- O- monophosphorothioate

Description: 5'-UMPS is an analogue of uridine-5'-O-monophosphate (5'-UMP) in which one of the oxygen atoms in the phosphate moiety has been replaced by sulfur.

Properties: 5'-UMPS is a potential substrate, competitive inhibitor or regulator of enzymes that interact with uridine-5'-O-monophosphate. It can be modified with SH-reactive reporters or linked to structures with SH-groups via a disulfide bond.

Specification: Crystallized or lyophilized sodium salt. Other salt forms are available upon request. Equal concentrations of 5'-UMPS 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 95% (HPLC / UV / 262 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 5'-UMPS has sufficient solubility in water or buffer systems. 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: 5'-UMPS has sufficient stability at room 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: Since UMP has multiple tasks in every organism, it is not unlikely that its 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 Reference for 5'-UMPS:

Eckstein, F.; Sternbach, H., *Biochim. Biophys. Acta*, **146**, 618 - 619 (1967): "Nucleoside 5'-O-phosphorothioates as Inhibitors for Phosphatases"