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Technical Information about Rp,Rp-c-diAMPSS

Analogue of the bacterial second messenger c-diAMP

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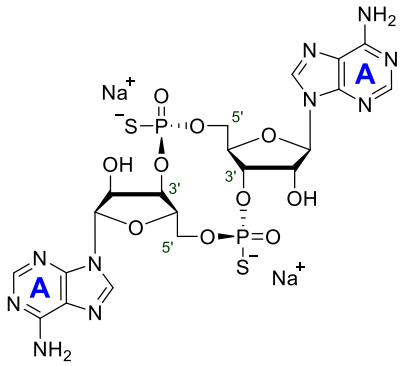

Abbreviation: **Rp,Rp-c-diAMPSS**

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
$C_{20}H_{24}N_{10}O_{10}P_2S_2$ (for free acid)	[1613726-45-6]	690.6 (for free acid)	λ_{max} 259 nm / ε 27350 / pH 7	C 118

Name: Cyclic diadenosine monophosphorodithioate, Rp- isomers
Syn.: c-(RpRp)-di-A_{ps} / cAp(S)Ap(S):R_p,R_p

Description: Rp,Rp-c-diAMPSS is the Rp,Rp-isomer of the di-thiophosphate analogue of the bacterial second messenger c-diAMP (Cat. No. C 088). The suffix "p" indicates that R/S nomenclature refers to phosphorus.

Properties: Rp,Rp-c-diAMPSS is an analogue of c-diAMP with increased metabolic stability. Rp,Rp-c-diAMPSS can be useful in studies on ligand-receptor interactions and was reported to enhance the anti-tumor activity of therapeutic vaccines (Leong et al. 2013). The corresponding Rp,Sp-isomer Rp,Sp-c-diAMPSS is also offered (Cat. No. C 119).

Specification: Crystallized or lyophilized sodium salt. Other salt forms may be available upon request. Please keep in mind that equal amounts 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 95% (HPLC / UV / 259 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: Rp,Rp-c-diAMPSS is soluble to 5 mM in water. 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: Rp,Rp-c-diAMPSS 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: 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 Rp,Rp-c-diAMPSS:

Leong, M.; Kanne, D.; Glickman, L.; Lemmens, E.; Lauer, P.; Metchette, K.; Burdette, D.; Diner, E.; Fu, J.; Soares, K.; Brockstedt, D.; Portnoy, D.A.; Vance, R.E.; Kim, Y.; Jaffee, E.; Pardoll, D.; Dubensky, T., *J. Immunother. Cancer*, **1**(Suppl 1): O20 (2013): "Modified STING-activating Cyclic Dinucleotide Derivatives Significantly Enhance the Anti-Tumor Activity of Therapeutic Vaccines"

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BIOLOG Life Science Institute, Bremen, Germany Phone: 49 (0) 421 591355 Fax: 49 (0) 421 5979713 e-mail: service@biolog.de