Technical Information about 8-Br-7-CH-cADPR

Membrane-permeant and hydrolysis-resistant antagonist of cADPR

Update: October 1, 2015

Abbreviation: 8-Br-7-CH-cADPR

<table>
<thead>
<tr>
<th>Formula</th>
<th>CAS No.</th>
<th>Molecular Weight</th>
<th>UV</th>
<th>BIOLOG Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_{16}H_{21}BrN_{4}O_{13}P_{2}</td>
<td>[189876-06-0]</td>
<td>619.2 (free acid)</td>
<td>( \lambda_{\text{max}} 277 \text{ nm} / \epsilon 10850 / \text{pH 7} )</td>
<td>B 100</td>
</tr>
</tbody>
</table>

Name: 8- Bromo- 7- deaza- cyclic adenosine diphosphate ribose / syn.: 7- Deaza- 8- bromo- cyclic ADP- ribose

Description: 8-Br-7-CH-cADPR is an analogue of the second messenger cyclic adenosine diphosphate ribose (cADPR, BIOLOG Cat. No. C 005) in which the hydrogen in position 8 of the heterocyclic nucleobase is replaced by bromine. In addition, the nitrogen atom in position 7 is replaced by carbon and hydrogen, respectively.

Properties: 8-Br-7-CH-cADPR is a membrane-permeant and hydrolysis-resistant antagonist of the second messenger cADPR.

Specification: Lyophilized or crystallized sodium salt. Other salt forms are available upon request. Equal concentrations of 8-Br-7-CH-cADPR 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 \( \lambda_{\text{max}} \).

Purity: Typical analysis is better than 97% (HPLC / UV / 277 nm). The product is not sterile and has not been tested for endotoxins.

Solubility: 8-Br-7-CH-cADPR is easily soluble in water (\( \geq 50 \text{ mM} \)). 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-Br-7-CH-cADPR has limited stability at ambient temperature. Therefore, we recommend that the compound should be stored in the freezer (-20° Celsius necessary, -80° recommended), for longer storage periods preferably in freeze-dried form..

Toxicity and Safety: Since cADPR seems to have 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 References for 8-Br-7-CH-cADPR:
