# Chemical Properties

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>8-Bromo-cAMP, sodium salt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cas No.:</td>
<td>76939-46-3</td>
</tr>
<tr>
<td>M.Wt:</td>
<td>430.09</td>
</tr>
<tr>
<td>Formula:</td>
<td>C10H10BrN5NaO6P</td>
</tr>
<tr>
<td>Chemical Name:</td>
<td>sodium (4aR,6R,7R,7aS)-6-(6-amino-8-bromo-9H-purin-9-yl)-7-hydroxytetrahydro-4H-furo[3,2-d][1,3,2]dioxaphosphinin-2-olate 2-oxide</td>
</tr>
<tr>
<td>Canonical SMILES:</td>
<td>NC1=C(N=C(Br)N2[C@@H]3O<a href="COP(O4)(%5BO-%5D)=O">C@H</a>[C@@H]4[C@H]3O)C2=NC=N1.[Na+]</td>
</tr>
</tbody>
</table>

**Solubility:** Soluble to 100 mM in sterile water

**Storage:** Store at -20°C

**General tips:** For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

**Shopping Condition:** Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

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# Biological Activity

**Targets:** MAPK Signaling

**Pathways:** cAMP

**Description:** 8-Bromo-cAMP is a cAMP-analogue. [1]
cAMP can have an effect on the proliferative response of a cell. Either the effect is a positive or a negative regulator depending on the cell types. There is also variable effect of cAMP in hematopoietic cell lines. CAMP-analogues can significantly inhibit the erythropoietin-stimulated proliferation.[1]

8-Bromo-cAMP increased the cellular content of mRNA encoding the hCG α- and β-subunits and prevented the increase in fibronectin mRNA. This is determined by blot hybridization analysis using specific cDNA probes. 8-Bromo-cAMP also induced phosphorylation of Erk1,2 in AML193 cells. 8-Bromo-cAMP is an agent in AML193 cells and activates Erk1,2, this condition happens does not accompanied by the involvement of Shc phosphorylation.[1,2]

8-bromo-cAMP increases catecholamine biosynthesis and produces an increase both in the activity and phosphorylation of tyrosine hydroxylase. 8-bromo-cAMP also promotes alterations in the synthesis and secretion of specific proteins, including fibronectin and the subunits of hCG by regulating mRNA expression.[2,3]

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.