

# Capadenoson

**Catalog No: tcsc1228**



## Available Sizes

**Size:** 5mg

**Size:** 10mg

**Size:** 50mg

**Size:** 100mg



## Specifications

**CAS No:**

544417-40-5

**Formula:**

$C_{25}H_{18}ClN_5O_2S_2$

**Pathway:**

GPCR/G Protein

**Target:**

Adenosine Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 50$  mg/mL (96.15 mM); H<sub>2</sub>O :

**Alternative Names:**

BAY 68-4986

**Observed Molecular Weight:**

520.03

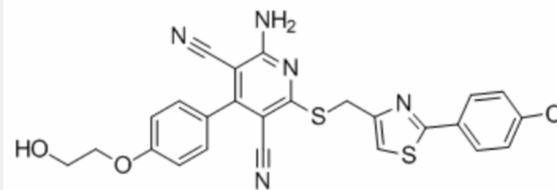
## Product Description

Capadenoson is a selective agonist of **adenosine-A1 receptor**.

IC50 & Target: Adenosine A1 receptor<sup>[1]</sup>

**In Vitro:** To further elucidate the pharmacological properties of Capadenoson, GTP shift assays are performed with the standard full A1-agonist CCPA and the A1-antagonist 8-cyclopentyl-1,3-dipropylxanthine (DPCPX). CCPA shows a  $K_i$  value of 4.2 nM in the binding assay on rat cortical brain membranes. In the presence of 1 mM GTP this  $K_i$  value shifts to a value of 64 nM. Therefore the GTP shift for CCPA is 15. DPCPX shows a GTP shift of 1 with virtually identical  $K_i$  values in the absence and presence of GTP. Capadenoson shows a  $K_i$  value of 24 nM in the binding assay. In the presence of 1 mM GTP this  $K_i$  value shifts to a value of 116 nM resulting in a GTP shift of 5 for Capadenoson<sup>[1]</sup>.

**In Vivo:** In the in vivo experiments, Wistar rats and SHR are pre-treated with Capadenoson at a concentration of 0.15 mg/kg for 5 days. On day 5, a stress test (physical restraint) is performed for 2 hours. The plasma concentration of Capadenoson measured 3 hours after drug intake remains constant in the 5 days prior to the restraint stress test and averaged 7.63 µg/L on day 4 and 5, respectively<sup>[1]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!