

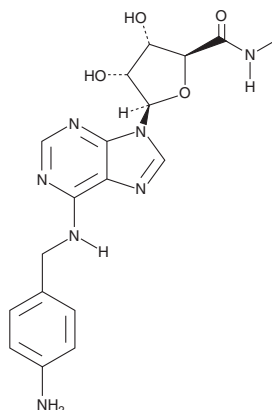
PRODUCT INFORMATION



AB-MECA

Item No. 28415

CAS Registry No.: 152918-26-8
Formal Name: 1-[6-[[[4-aminophenyl)methyl]amino]-9H-purin-9-yl]-1-deoxy-N-methyl-β-D-ribofuranuronamide
MF: C₁₈H₂₁N₇O₄
FW: 399.4
Purity: ≥98%
UV/Vis.: λ_{max}: 269 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AB-MECA is supplied as a crystalline solid. A stock solution may be made by dissolving the AB-MECA in the solvent of choice, which should be purged with an inert gas. AB-MECA is soluble in DMSO.

Description

AB-MECA is an adenosine A₃ receptor agonist (K_i = 430.5 nM for the human receptor expressed in CHO cells).¹ It inhibits LPS-induced TNF-α production in primary cultured human lung macrophages (pD₂ = 6.9).² AB-MECA increases contraction of isolated guinea pig trachea *ex vivo* when used at a concentration of 0.1 μM and increases bronchoconstriction *in vivo* when administered at a dose of 3 μg/kg in a guinea pig model of ovalbumin-sensitized asthma.³ A radiolabeled form of AB-MECA has been used for radioligand binding assays and binds to rat adenosine A₁ and A₃ receptors (K_ds = 3.42 and 1.48 nM in COS-7 and CHO cells, respectively) and canine adenosine A_{2a} receptors (K_d = 25.1 nM in COS-7 cells).⁴

References

1. Yates, L., Clark, J.H., Martin, T.J., *et al.* Radioligand binding and functional responses of ligands for human recombinant adenosine A₃ receptors. *Auton. Autacoid Pharmacol.* **26(2)**, 191-200 (2006).
2. Buenestado, A., Grassin Delye, S., Arnould, I., *et al.* The role of adenosine receptors in regulating production of tumour necrosis factor-α and chemokines by human lung macrophages. *Br. J. Pharmacol.* **159(6)**, 1304-1311 (2010).
3. Mikus, E.G., Szeredi, J., Boer, K., *et al.* Evaluation of SSR161421, a novel orally active adenosine A₃ receptor antagonist on pharmacology models. *Eur. J. Pharmacol.* **699(1-3)**, 172-179 (2013).
4. Olah, M.E., Gallo-Rodriguez, C., Jacobson, K.A., *et al.* [¹²⁵I]-4-aminobenzyl-5'-N-methylcarboxamidoadenosine, a high affinity radioligand for the rat A₃ adenosine receptor. *Mol. Pharmacol.* **45(5)**, 978-982 (1994).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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