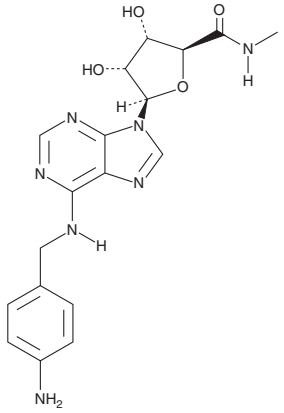
PRODUCT INFORMATION

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:	$C_{18}H_{21}N_7O_4$
FW:	399.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 269 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 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 A_3 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 (pD_2 = 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 A_1 and A_3 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 A_3 receptors. *Auton. Autacoid Pharmacol.* **26(2),** 191-200 (2006).
2. Buenestado, A., Grassin Delyle, 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 A_3 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.* ^{125}I-4-aminobenzyl-5'-N-methylcarboxamidoadenosine, a high affinity radioligand for the rat A_3 adenosine receptor. *Mol. Pharmacol.* **45(5),** 978-982 (1994).

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