

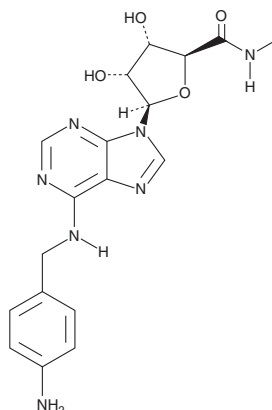
# PRODUCT INFORMATION



## 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<sub>18</sub>H<sub>21</sub>N<sub>7</sub>O<sub>4</sub>  
**FW:** 399.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 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<sub>3</sub> receptor agonist (K<sub>i</sub> = 430.5 nM for the human receptor expressed in CHO cells).<sup>1</sup> It inhibits LPS-induced TNF-α production in primary cultured human lung macrophages (pD<sub>2</sub> = 6.9).<sup>2</sup> 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.<sup>3</sup> A radiolabeled form of AB-MECA has been used for radioligand binding assays and binds to rat adenosine A<sub>1</sub> and A<sub>3</sub> receptors (K<sub>d</sub>s = 3.42 and 1.48 nM in COS-7 and CHO cells, respectively) and canine adenosine A<sub>2a</sub> receptors (K<sub>d</sub> = 25.1 nM in COS-7 cells).<sup>4</sup>

### References

1. Yates, L., Clark, J.H., Martin, T.J., *et al.* Radioligand binding and functional responses of ligands for human recombinant adenosine A<sub>3</sub> 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 A<sub>3</sub> 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.* <sup>125</sup>I-4-aminobenzyl-5'-N-methylcarboxamidoadenosine, a high affinity radioligand for the rat A<sub>3</sub> 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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