

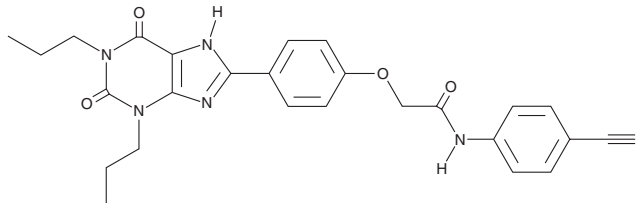
PRODUCT INFORMATION



MRS1754

Item No. 33501

CAS Registry No.: 264622-58-4
Formal Name: N-(4-cyanophenyl)-2-[4-(2,3,6,9-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)phenoxy]-acetamide
MF: C₂₆H₂₆N₆O₄
FW: 486.5
Purity: ≥95%
UV/Vis.: λ_{max}: 265, 319, 359 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

MRS1754 is supplied as a crystalline solid. A stock solution may be made by dissolving the MRS1754 in the solvent of choice, which should be purged with an inert gas. MRS1754 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of MRS1754 in these solvents is approximately 0.5 mg/ml.

Description

MRS1754 is an adenosine A_{2B} receptor antagonist (K_i = 1.97 nM).¹ It is selective for adenosine A_{2B} receptors over adenosine A₁, A_{2A}, and A₃ receptors (K_is = 403, 503, and 570 nM, respectively). *In vivo*, MRS1754 (0.5-10 mg/kg) increases 28-day survival, as well as decreases peritoneal bacterial growth and plasma levels of IL-6, TNF-α, and MIP-2, in a mouse model of sepsis induced by cecal ligation and puncture (CLP).² MRS1754 (1 mg/kg) reduces disease severity in a mouse model of experimental autoimmune encephalomyelitis (EAE).³

References

1. Kim, Y.-C., Ji, X.-d., Melman, N., *et al.* Anilide derivatives of an 8-phenylxanthine carboxylic congener are highly potent and selective antagonists at human A_{2B} adenosine receptors. *J. Med. Chem.* **43**(6), 1165-1172 (2000).
2. Belikoff, B.G., Hatfield, S., Georgiev, P., *et al.* A2B adenosine receptor blockade enhances macrophage-mediated bacterial phagocytosis and improves polymicrobial sepsis survival in mice. *J. Immunol.* **186**(4), 2444-2453 (2011).
3. Wei, W., Du, C., Lv, J., *et al.* Blocking A_{2B} adenosine receptor alleviates pathogenesis of experimental autoimmune encephalomyelitis via inhibition of IL-6 production and Th17 differentiation. *J. Immunol.* **190**(1), 138-146 (2013).

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.

WARRANTY AND LIMITATION OF REMEDY

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