

# PRODUCT INFORMATION

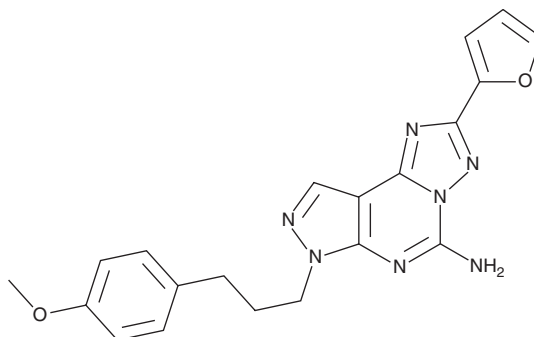


**SCH 442416**

Item No. 22233

**CAS Registry No.:** 316173-57-6  
**Formal Name:** 2-(2-furanyl)-7-[3-(4-methoxyphenyl)propyl]-7H-pyrazolo[4,3-e][1,2,4]triazolo[1,5-c]pyrimidin-5-amine

**MF:** C<sub>20</sub>H<sub>19</sub>N<sub>7</sub>O<sub>2</sub>  
**FW:** 389.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 216, 229, 263 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

SCH 442416 is supplied as a crystalline solid. A stock solution may be made by dissolving the SCH 442416 in the solvent of choice. SCH 442416 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of SCH 442416 in these solvents is approximately 10 and 15 mg/ml, respectively.

SCH 442416 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SCH 442416 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. SCH 442416 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

SCH 442416 is a potent, brain-permeable, and selective adenosine A<sub>2A</sub> receptor (A<sub>2A</sub>R) antagonist.<sup>1</sup> It is selective for A<sub>2A</sub>R with a K<sub>i</sub> value of 0.048 nM compared to 1,111, >10,000, and >10,000 nM for A<sub>1</sub>R, A<sub>2B</sub>R, and A<sub>3</sub>R, respectively, using human recombinant proteins in a radioligand binding assay. It is also selective for A<sub>2A</sub>R (K<sub>i</sub> = 0.50 nM) in rat cerebral membranes over A<sub>1</sub>R and A<sub>3</sub>R (K<sub>i</sub>s = 1,815 and >10,000, respectively). Biodistribution in rats demonstrates preferential uptake by liver, adrenal gland, kidney, and lungs, and by the striatum in the brain. SCH 442416 (10 μM) attenuates adenosine-mediated and A<sub>2A</sub>R agonist-induced arteriole dilation.<sup>2</sup>

## References

1. Todde, S., Moresco, R.M., Simonelli, P., *et al.* Design, radiosynthesis, and biodistribution of a new potent and selective ligand for *in vivo* imaging of the adenosine A(2A) receptor system using positron emission tomography. *J. Med. Chem.* **43(23)**, 4359-4362 (2000).
2. Maimon, N., Titus, P.A., and Sarelus, I.H. Pre-exposure to adenosine, acting via A(2A) receptors on endothelial cells, alters the protein kinase A dependence of adenosine-induced dilation in skeletal muscle resistance arterioles. *J. Physiol.* **52(12)**, 2575-2590 (2014).

### 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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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM