

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



PSB-603

Item No. 25637

CAS Registry No.: 1092351-10-4

Formal Name: 8-[4-[[4-(4-chlorophenyl)-1-piperazinyl]

sulfonyl]phenyl]-3,9-dihydro-1-propyl-

1H-purine-2,6-dione

MF:  $C_{24}H_{25}CIN_6O_4S$ 

529.0 FW: **Purity:** ≥98%

UV/Vis.:  $\lambda_{\text{max}}$ : 252, 328 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**

PSB-603 is supplied as a crystalline solid. A stock solution may be made by dissolving the PSB-603 in the solvent of choice. PSB-603 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of PSB-603 in these solvents is approximately 5 mg/ml. PSB-603 is also slightly soluble in ethanol.

PSB-603 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PSB-603 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PSB-603 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

PSB-603 is an antagonist of the adenosine  $A_{2B}$  receptor ( $K_i = 0.553$  nM).<sup>1</sup> It is selective for adenosine  $A_{2B}$ over  $A_1$ ,  $A_{2A}$ , and  $A_3$  receptors ( $K_1$ s = >10,000 nM). It reduces intracellular calcium concentrations in Jurkat T cells expressing the human  $A_{2B}$  receptor (IC<sub>50</sub> = 1.13 nM). PSB-603 reduces Zika viral plaque formation (IC<sub>50</sub> = 43.8 nM) without affecting cell viability of A549 cells when used at concentrations up to 1  $\mu$ M.<sup>2</sup> In vivo, PSB-603 (0.25 µg/head, i.p.) delays tumor growth and reduces tumor volume and the number of pulmonary metastases in the B16 mouse model of melanoma via inhibition of induction of regulatory T cells.<sup>3</sup>

#### References

- 1. Borrmann, T., Hinz, S., Bertarelli, D.C., et al. 1-alkyl-8-(piperazine-1-sulfonyl)phenylxanthines: Development and characterization of adenosine A2B receptor antagonists and a new radioligand with subnanomolar affinity and subtype specificity. J. Med. Chem. 52(13), 3994-4006 (2009).
- 2. Micewicz, E.D., Khachatoorian, R., French, S.W., et al. Identification of novel small-molecule inhibitors of Zika virus infection. Bioor. Med. Chem. Lett. 28(3), 452-458 (2018).
- 3. Kaji, W., Tanaka, S., Tsukimoto, M., et al. Adenosine A<sub>2B</sub> receptor antagonist PSB603 suppresses tumor growth and metastasis by inhibiting induction of regulatory T cells. J. Toxicol. Sci. 39(2), 191-198 (2014).

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

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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