

Product Name: PSB 603

Catalog No.: 3198

Batch No.: 4

CAS Number: 1092351-10-4

IUPAC Name: 8-[4-[4-(4-Chlorophenyl)piperazine-1-sulfonyl]phenyl]-1-propylxanthine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₂₅ClN₆O₄S·½H₂O

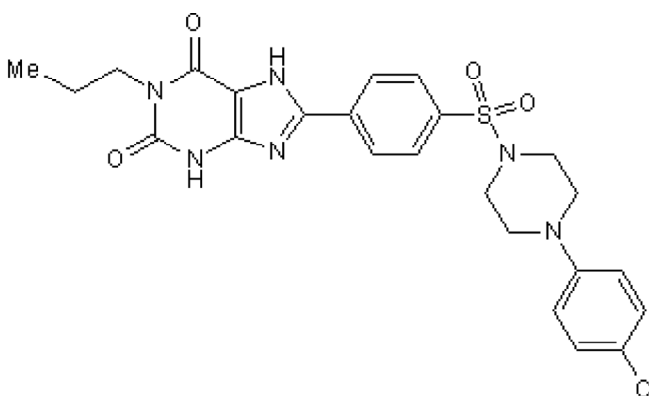
Batch Molecular Weight: 533.51

Physical Appearance: Off White solid

Solubility: DMSO to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.03	4.82	15.75
Found	53.95	4.74	15.62

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

PSB 603 is an adenosine A_{2B} receptor antagonist that displays > 17000-fold selectivity over other adenosine receptors (K_i values are 0.553, > 10000, > 10000 and > 10000 nM for A_{2B}, A₁, A_{2A} and A₃ receptors respectively). Downregulates the expression of osteocalcin and osteopontin during osteogenic differentiation of mesenchymal stem cells.

Physical and Chemical Properties:

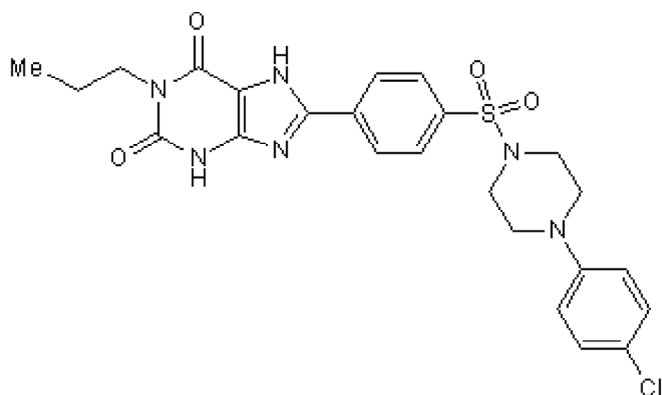
Batch Molecular Formula: C₂₄H₂₅ClN₆O₄S·½H₂O

Batch Molecular Weight: 533.51

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Shih et al (2014) Calcium phosphate-bearing matrices induce osteogenic differentiation of stem cells through adenosine signaling. Proc.Natl.Acad.Sci.U.S.A. **111** 990. PMID: 24395775.

Borrmann et al (2009) 1-alkyl-8-(piperazine-1-sulfonyl)phenylxanthines: development and characterization of adenosine A_{2B} receptor antagonists and a new radioligand with subnanomolar affinity and subtype specificity. J.Med.Chem. **52** 3994. PMID: 19569717.

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