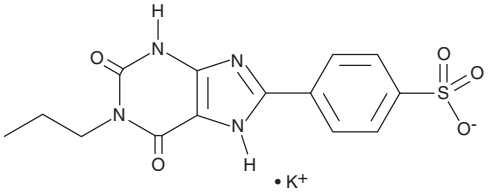
PRODUCT INFORMATION

PSB-1115 (potassium salt)

Item No. 23929

CAS Registry No.:	409344-71-4
Formal Name:	4-(2,3,6,9-tetrahydro-2,6-dioxo-1-propyl-1H-purin-8-yl)-benzenesulfonic acid, monopotassium salt
MF:	$C_{14}H_{13}N_4O_5S \bullet K$
FW:	388.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 238, 312 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-1115 (potassium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the PSB-1115 (potassium salt) in the solvent of choice. PSB-1115 (potassium salt) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of PSB-1115 (potassium salt) in these solvents is approximately 25 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PSB-1115 (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PSB-1115 (potassium salt) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PSB-1115 is an antagonist of the adenosine A_{2B} receptor (K_i = 53.4 nM).[1] It is selective for A_{2B} over A_1 and A_{2A} receptors, which have K_i values of 2,200 and 24,000 nM, respectively, and over the A_3 receptor, which it inhibits only 14% at a concentration of 10 µM. PSB-1115 pre-treatment reduces relaxation of rat trachea induced by repeated dosing of the non-selective adenosine agonist NECA (Item No. 21420).[2]

References

1. Hayallah, A.M., Sandoval-Ramírez, J., Reith, U., *et al.* 1,8-Disubstituted xanthine derivatives: Synthesis of potent A2B-selective adenosine receptor antagonists. *J. Med. Chem.* **45(7)**, 1500-1510 (2002).
2. Walaschewski, R., Begrow, F., and Verspohl, E.J. Impact and benefit of A2B-adenosine receptor agonists for the respiratory tract: Mucociliary clearance, ciliary beat frequency, trachea muscle tonus and cytokine release. *J. Pharm. Pharmacol.* **65(1)**, 123-132 (2013).

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