

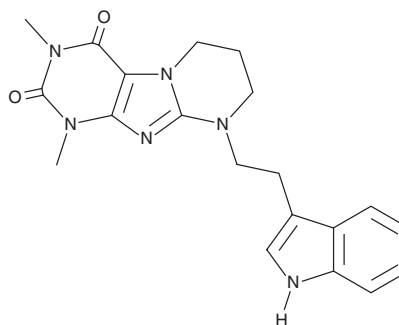
# PRODUCT INFORMATION



## PSB-KD107

Item No. 31393

**CAS Registry No.:** 955121-65-0  
**Formal Name:** 6,7,8,9-tetrahydro-9-[2-(1H-indol-3-yl)ethyl]-1,3-dimethyl-pyrimido[2,1-f]purine-2,4(1H,3H)-dione  
**MF:** C<sub>20</sub>H<sub>22</sub>N<sub>6</sub>O<sub>2</sub>  
**FW:** 378.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 222, 302 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-KD107 is supplied as a crystalline solid. A stock solution may be made by dissolving the PSB-KD107 in the solvent of choice, which should be purged with an inert gas. PSB-KD107 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PSB-KD107 in these solvents is approximately 2 mg/ml.

PSB-KD107 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PSB-KD107 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PSB-KD107 has a solubility of approximately 0.2 mg/ml in a 1:4 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-KD107 is an agonist of the orphan G protein-coupled receptor GPR18 (EC<sub>50</sub> = 0.56 μM in a β-arrestin recruitment assay using CHO cells expressing the human receptor).<sup>1,2</sup> It is selective for GPR18 over GPR55, as well as cannabinoid 1 (CB<sub>1</sub>) and CB<sub>2</sub> receptors, at 10 μM but also binds to the adenosine A<sub>2A</sub> receptor (K<sub>i</sub> = 0.33 μM for the rat receptor).<sup>1,3</sup>

### References

1. Schoeder, C.T., Kaleta, M., Mahardhika, A.B. *et al.* Structure-activity relationships of imidazothiazinones and analogs as antagonists of the cannabinoid-activated orphan G protein-coupled receptor GPR18. *Eur. J. Med. Chem.* **155**, 381-397 (2018).
2. Schoeder, C.T., Mahardhika, A.B., Drabczyńska, A., *et al.* Discovery of tricyclic xanthenes as agonists of the cannabinoid-activated orphan G-protein-coupled receptor GPR18. *ACS Med. Chem. Lett.* (2020).
3. Drabczyńska, A., Müller, C.E., Schiedel, A. *et al.* Phenylethyl-substituted pyrimido[2,1-f]purinediones and related compounds: Structure-activity relationships as adenosine A<sub>1</sub> and A<sub>2A</sub> receptor ligands. *Bioorg. Med. Chem.* **15(22)**, 6956-6974 (2007).

#### 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.

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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