

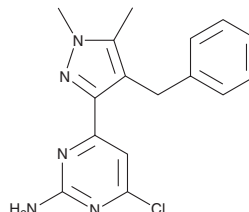
# PRODUCT INFORMATION



## TDI-10229

Item No. 37674

**CAS Registry No.:** 2810887-45-5  
**Formal Name:** 4-chloro-6-[1,5-dimethyl-4-(phenylmethyl)-1H-pyrazol-3-yl]-2-pyrimidinamine  
**MF:** C<sub>16</sub>H<sub>16</sub>ClN<sub>5</sub>  
**FW:** 313.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 213, 215 nm  
**Supplied as:** A 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

TDI-10229 is supplied as a solid. A stock solution may be made by dissolving the solid in the solvent of choice, which should be purged with an inert gas. TDI-10229 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of TDI-10229 in these solvents is approximately 1 and 5 mg/ml, respectively.

### Description

TDI-10229 is an inhibitor of soluble adenylyl cyclase (sAC; IC<sub>50</sub> = 0.2 μM for the human enzyme in a cell-free assay).<sup>1</sup> It is selective for sAC over the transmembrane ACs AC1-3, -5, -8, and -9 at 10 μM. TDI-10229 inhibits cAMP accumulation induced by the phosphodiesterase (PDE) inhibitor IBMX (Item No. 13347) in rodent sAC-expressing HEK293 cells (IC<sub>50</sub> = 0.1 μM). It also inhibits capacitation-induced cAMP accumulation and protein kinase A (PKA) activation in isolated mouse and human sperm when used at a concentration of 5 μM. TDI-10229 (5 and 50 μM) prevents the acrosome reaction and fertilization of mouse sperm with mouse oocytes *in vitro*.

### Reference

1. Balbach, M., Ghanem, L., Rossetti, T., *et al.* Soluble adenylyl cyclase inhibition prevents human sperm functions essential for fertilization. *Mol. Hum. Reprod.* **27**(9), gaab054 (2021).

#### 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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