

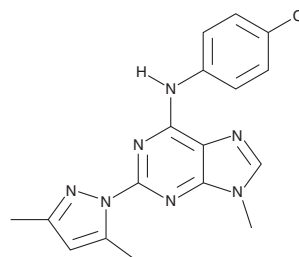
# PRODUCT INFORMATION



## NS 13001

Item No. 37317

**CAS Registry No.:** 1063331-94-1  
**Formal Name:** N-(4-chlorophenyl)-2-(3,5-dimethyl-1H-pyrazol-1-yl)-9-methyl-9H-purin-6-amine  
**MF:** C<sub>17</sub>H<sub>16</sub>ClN<sub>7</sub>  
**FW:** 353.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 269, 303 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

NS 13001 is supplied as a solid. A stock solution may be made by dissolving the NS 13001 in the solvent of choice, which should be purged with an inert gas. NS 13001 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NS 13001 in ethanol is approximately 0.5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

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 NS 13001 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of NS 13001 in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

NS 13001 is a positive allosteric modulator for small-conductance calcium-activated potassium channel 2 (K<sub>Ca</sub>2.2/SK2) and K<sub>Ca</sub>2.3/SK3.<sup>1</sup> It increases calcium-induced currents in an inside-out patch clamp assay using HEK293 cells expressing human K<sub>Ca</sub>2.2/SK2 or K<sub>Ca</sub>2.3/SK3 (EC<sub>50</sub>s = 1.8 and 0.14 μM, respectively). Oral administration of NS 13001 (30 mg/kg per day) improves sensorimotor deficits in the beam walk test and increases the latency to fall in the rotarod test in a SCA2-58Q transgenic mouse model of neuromuscular degeneration.

### Reference

1. Kasumu, A.W., Hougaard, C., Rode, F., *et al.* Selective positive modulator of calcium-activated potassium channels exerts beneficial effects in a mouse model of spinocerebellar ataxia type 2. *Chem. Biol.* **19**(10), 1340-1353 (2012).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/20/2023

#### 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