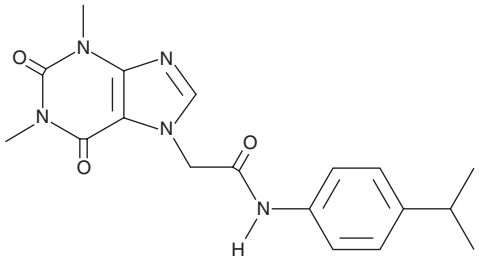
PRODUCT INFORMATION

HC-030031

Item No. 11923

CAS Registry No.:	349085-38-7
Formal Name:	1,2,3,6-tetrahydro-1,3-dimethyl-N-[4-(1-methylethyl)phenyl]-2,6-dioxo-7H-purine-7-acetamide
MF:	$C_{18}H_{21}N_5O_3$
FW:	355.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 248 nm
Supplied as:	A crystalline 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

HC-030031 is supplied as a crystalline solid. A stock solution may be made by dissolving the HC-030031 in the solvent of choice, which should be purged with an inert gas. HC-030031 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of HC-030031 in these solvents is approximately 10 and 20 mg/ml, respectively.

HC-030031 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, HC-030031 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. HC-030031 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ransient receptor potential cation channel A1 (TRPA1) is an ankyrin-like ion channel which acts as a sensor for chemical irritants, pain, and cold. It is activated by allyl isothiocyanate (AITC), formalin, hydrogen peroxide, tear gas, and other compounds.[1-3] HC-030031 is a selective TRPA1 blocker, antagonizing TRPA1-mediated calcium influx induced by AITC and formalin (IC_{50}s = 6.2 and 5.3 µM, respectively).[2] It does not block currents mediated by TRPV1, TRPV3, TRPV4 hERG, or $Na_V1.2$ channels.[2] HC-030031 can be used in cells or delivered to animals orally, by inhalation, or by injection.[2,4-6] Oral administration (100 mg/kg) of HC-030031 significantly reversed mechanical hypersensitivity in rat models of chronic inflammatory or neuropathic pain, while local injection (100 µg) into inflamed mouse hind paws attenuated mechanical, but not heat, hypersensitivity.[4,6]

References

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3. Andrade, E.L., Luiz, A.P., Ferreira, J., *et al. Neuroscience* **152(2)**, 511-520 (2008).
4. Eid, S.R., Crown, E.D., Moore, E.L., *et al. Mol. Pain* **4(48)**, (2008).
5. Daller, J.R., Wong, J., Brooks, B.D., *et al. J. Pharmacol. Toxicol. Methods* **66(3)**, 232-237 (2012).
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