

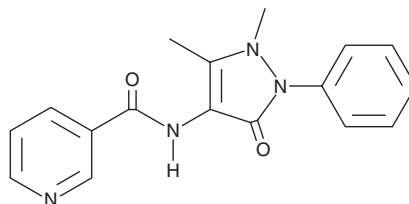
PRODUCT INFORMATION



Nifenazone

Item No. 33330

CAS Registry No.: 2139-47-1
Formal Name: N-(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)-3-pyridinecarboxamide
Synonyms: Niapyrin, Nicotinoylantipyrine
MF: C₁₇H₁₆N₄O₂
FW: 308.3
Purity: ≥98%
UV/Vis.: λ_{max}: 272 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

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

Nifenazone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, nifenazone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Nifenazone has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Nifenazone is an activator of the 20S proteasome.¹ It activates the chymotryptic-like peptidase activity of the yeast 20S proteasome in a cell-free assay when used at a concentration of 0.5 μM. Nifenazone (50 μM) reduces decreases in mitochondrial activity and cell death induced by amyloid β (1-42) (Aβ42) in neuronally differentiated SH-SY5Y cells.

Reference

1. Santoro, A.M., Lanza, V., Bellia, F., *et al.* Pyrazolones activate the proteasome by gating mechanisms and protect neuronal cells from β-amyloid toxicity. *ChemMedChem* **15**(3), 302-316 (2020).

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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