

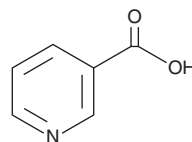
# PRODUCT INFORMATION



## Nicotinic Acid

Item No. 37416

**CAS Registry No.:** 59-67-6  
**Formal Name:** 3-pyridinecarboxylic acid  
**Synonyms:** Niacin, NSC 169454, Pyridine-3-Carboxylic Acid, SR 4390, Vitamin B<sub>3</sub>  
**MF:** C<sub>6</sub>H<sub>5</sub>NO<sub>2</sub>  
**FW:** 123.1  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 217 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

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

### Description

Nicotinic acid, also known as niacin, is an antagonist of hydroxycarboxylic acid receptor 2 (HCA2), known previously as GPR109A (K<sub>i</sub> = 113 nM).<sup>1</sup> Nicotinic acid reduces lipolysis in primary human adipocytes (IC<sub>50</sub> = 200 nM).<sup>2</sup> It reduces the invasion of AH109A-TC cancer cells when used at concentrations of 20 and 40 μM.<sup>3</sup> Nicotinic acid increases cutaneous vasodilation in normotensive mice in a dose-dependent manner.<sup>4</sup> Formulations containing nicotinic acid have been used in the treatment of hyperlipidemia.

### References

1. Tunaru, S., Kero, J., Schaub, A., *et al.* PUMA-G and HM74 are receptors for nicotinic acid and mediate its anti-lipolytic effect. *Nat. Med.* **9**(3), 352-355 (2003).
2. Ren, N., Kaplan, R., Hernandez, M., *et al.* Phenolic acids suppress adipocyte lipolysis via activation of the nicotinic acid receptor GPR109A (HM74a/PUMA-G). *J. Lipid Res.* **50**(5), 908-914 (2009).
3. Hirakawa, N., Okachi, R., Miura, Y., *et al.* Anti-invasive activity of niacin and trigonelline against cancer cells. *Biosci. Biotechnol. Biochem.* **69**(3), 653-658 (2005).
4. Cheng, K., Wu, T.J., Wu, K.K., *et al.* Antagonism of the prostaglandin D<sub>2</sub> receptor 1 suppresses nicotinic acid-induced vasodilation in mice and humans. *Proc. Natl. Acad. Sci. USA* **103**(17), 6682-6687 (2006).

#### 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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