Spermine NONOate, Nitric oxide (NO) donor ab144522

Overview

Product name
Spermine NONOate, Nitric oxide (NO) donor

Description
Nitric oxide (NO) donor

Biological description
NO donor (EC50 = 6.2 μM, rabbit aorta relaxation). Stable nitric oxide and spermine complex. Spontaneously releases NO in a pH-dependent manner with a half-life of 39 minutes.

Purity
> 97%

CAS Number
136587-13-8

Chemical structure

![Chemical structure](image)

Properties

Chemical name
N-[3-Aminopropyl-4-(3-aminopropylamino)butyl]amino]-N-hydroxynitrous amide

Molecular weight
262.35

Molecular formula
C10H26N6O2

PubChem identifier
5259

Storage instructions
Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.

Solubility overview
Soluble in water to 100 mM

Handling
Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our frequently asked questions (FAQ) page for more details.

SMILES
C(CCN(CCCN)N(N=O)O)CNCCCN

Source
Synthetic
Effect of NO on HaCaT cell migration.

An in vitro wound model was developed using cultured sheets of confluent HaCaT cells, as described in the Materials and Methods section. The cells were incubated in the absence or presence of different concentrations of NO donors SNP, spermine NONOate or SNAP. At the designated time points, the cells were imaged under phase contrast microscopy. The closures of the artificial wounds stimulated by SNP (a), spermine NONOate (c) and SNAP (e) were measured. The percentage of the migrated area in the original scratch field was calculated via image analysis and was expressed as the mean ± SD of different wells (b, d, f). Three independent experiments were performed. (b) Quantitative analysis of (a). (d) Quantitative analysis of (c). (f) Quantitative analysis of (e).

Panel d shown only.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"