

PRODUCT INFORMATION



NO-Rosa5

Item No. 42356

Formal Name: 4-(9-(2-(((4-hydroxyphenyl)(nitroso)amino)methyl)phenyl)-6-morpholino-3H-xanthen-3-ylidene)morpholin-4-ium, monochloride

Synonym: Nitric Oxide-Rosa5

MF: $C_{34}H_{33}N_4O_5 \cdot Cl$

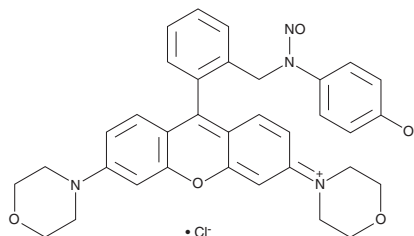
FW: 613.1

Purity: $\geq 95\%$

Supplied as: A solid

Storage: $-20^\circ C$

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

NO-Rosa5 is a photocontrollable nitric oxide (NO) donor for *in cellulo* and *ex vivo* use.¹ It is composed of the fluorescent dye rosamine, which functions as the light-harvesting group, and the NO-releasing moiety N-nitrosoaminophenol. Upon excitation of rosamine between 530-590 nm, photoinduced electron transfer from the NO-releasing moiety occurs, forming an unstable phenoxy radical. This radical then releases NO to form a stable quinoneimine product.

Protocol for NO release in cultured cells

1. Prepare a working solution of NO-Rosa5 at a concentration of 1-10 μM in cell culture media.
2. Remove culture medium from cells.
3. Add NO-Rosa5 working solution to cells and incubate for at least 30 minutes.
4. Photoirradiate cell culture dish using a light source with excitation between 530 and 590 nm.

Note 1: Photoirradiation conditions should be optimized by the end user for each experiment.

Note 2: It is recommended that all experiments be conducted in the dark to avoid non-specific NO release from NO-Rosa5 by an environmental light source.

Note 3: If using NO-Rosa5 in conjunction with fluorescent dyes, reagents, or proteins, please note that fluorescent reagents that are excitable between 500 and 600 nm are NOT compatible for use with NO-Rosa5 (only fluorescent reagents that are excitable at < 500 nm or > 600 nm are compatible).

Reference

1. Ieda, N., Hotta, Y., Kawaguchi, M., *et al.* *In cellulo* and *ex vivo* availability of a yellowish-green-light-controllable NO releaser. *Chem. Pharm. Bull.* **67**(6), 579-579 (2019).

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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