

Certificate of Analysis

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Product Name: DMNB-caged-Serine

Catalog No.: 6315

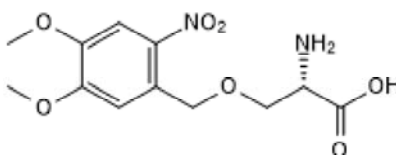
Batch No.: 2

CAS Number: 780009-55-4

IUPAC Name: O-(4,5-Dimethoxy-2-nitrobenzyl)-L-serine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₆N₂O₇.H₂O
Batch Molecular Weight: 318.28
Physical Appearance: Yellow solid
Solubility: DMSO to 10 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.5% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.28	5.7	8.8
Found	45.4	5.49	8.71

Amino Acid Analysis: No free serine present

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: O-(4,5-Dimethoxy-2-nitrobenzyl)-L-serine

Description:

DMNB-caged-Serine is a DMNB-caged serine. Photoactivated to release serine by visible blue light (405 nm) in cells. Incorporated into *S.cerevisiae* proteins when introduced into growth medium at millimolar concentrations.

Physical and Chemical Properties:

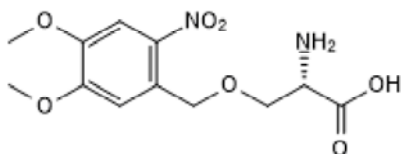
Batch Molecular Formula: C₁₂H₁₆N₂O₇.H₂O

Batch Molecular Weight: 318.28

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Lemke et al (2007) Control of protein phosphorylation with a genetically encoded photocaged amino acid. *Nat.Chem.Biol.* **3** 769. PMID: 17965709.

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