bio-techne
TOCRIS

Print Date: Jan 22nd 2026

Certificate of Analysis

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Product Name: **2-NBDG** **Catalog No.: 6065** **Batch No.: 4**

CAS Number: 186689-07-6

IUPAC Name: 2-Deoxy-2-[(7-nitro-2,1,3-benzoxadiazol-4-yl)amino]-D-glucose

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{14}N_4O_8$

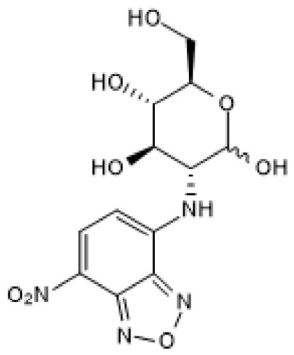
Batch Molecular Weight: 342.26

Physical Appearance: Orange solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.0% purity at 468 nm

λ_{max}: 467 nm (MeOH)

λ_{em}: 524 nm (MeOH)

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CAS Number: 186689-07-6

IUPAC Name: 2-Deoxy-2-[(7-nitro-2,1,3-benzoxadiazol-4-yl)amino]-D-glucose

Description:

2-NBDG is a fluorescent glucose analog for visualizing glucose uptake into living cells.

Physical and Chemical Properties:

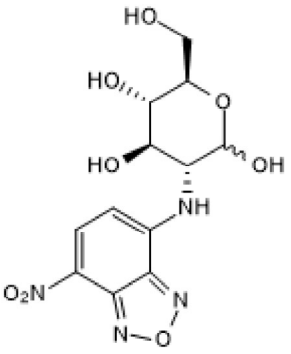
Batch Molecular Formula: $C_{12}H_{14}N_4O_8$

Batch Molecular Weight: 342.26

Physical Appearance: Orange solid

Minimum Purity: ≥97%

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 100 mM

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Yamada *et al* (2007) A real-time method of imaging glucose uptake in single, living mammalian cells. Nat.Protoc. ***2*** 753. PMID: 17406637.

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