SZABO SCANDIC

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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

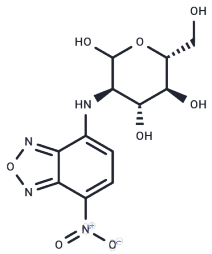
linkedin.com/company/szaboscandic

Data Sheet (Cat.No.T14017)

TargetMol

2-NBDG

Chemical Properties



CAS No. : 186689-07-6

Formula: C12H14N4O8

Molecular Weight: 342.26

Appearance: no data available

Storage: store at low temperature,keep away from direct sunlight
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	2-NBDG is a fluorescent indicator for direct glucose uptake measurement. It is an indicator of cell viability.
Targets(IC50)	Others
In vitro	**METHODS**: Flow cytometry was used to detect glucose uptake: 1, Cells were seeded at 1*104/well in 96-well plates, and the experiment was performed within 24-48 h. The cells were incubated at 37 ℃ for 10-180 min. 2, Remove the cell culture medium, add fresh medium containing 2-NBDG (5-40 μM), and incubate for 10-180 min at 37 ℃. 3. Remove the medium and wash twice with pre-cooled PBS to stop the 2-NBDG uptake reaction. Resuspend in fresh medium and perform flow cytometry within 30 min. [1]
In vivo	**METHODS**: Glucose uptake by circulating breast cancer cells was detected by fluorescent microscopy: 1. A mouse blood sample (100 μL/mouse) was collected by puncturing the mouse saphenous vein. 2. Incubate the blood sample containing circulating breast cancer cells with 2-NBDG (5 μg/100 μL blood) for 30 min at 37℃ in a dark incubator. 3. Add the magnetic bead suspension (1μL 1%) to 100 μL of blood sample and incubate for 30 min at 4℃ with gentle shaking to promote binding of the magnetic beads to the circulating breast cancer cells. 4. Separate the circulating breast cancer cells from the blood using a magnetic separation rack, wash with PBS 3 times, resuspend in 100 μL PBS and transfer to a 96-well cell plate. 5. 2-NBDG uptake by circulating breast cancer cells was examined under a fluorescence microscope equipped with a 488 nm filter. Large cells with a fluorescent signal derived from fluorescent 2-NBDG uptake by cells were counted as hypermetabolic circulating breast cancer cells, and small-sized normal mouse blood cells (lymphocytes and RBCs) showed no or little 2-NBDG fluorescent signal. [2]

Solubility Information

Solubility	H2O: 5 mg/mL (14.61 mM),Sonication and heating to 60℃ are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9218 mL	14.6088 mL	29.2176 mL
5 mM	0.5844 mL	2.9218 mL	5.8435 mL
10 mM	0.2922 mL	1.4609 mL	2.9218 mL
50 mM	0.0584 mL	0.2922 mL	0.5844 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Zhang Y, Cai Y, Wang T, et al.A common tolerance mechanism of bacterial biofilms to antibiotics.bioRxiv.2023: 2023.01. 30.526163.