



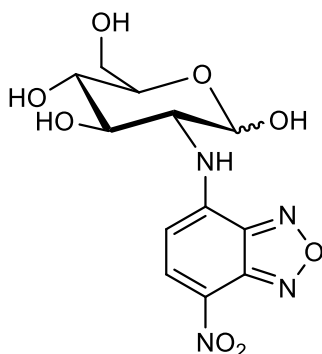
**Catalog # 10-1459**

**2-NBDG**

186689-07-6

2-Deoxy-2-[(7-nitro-2,1,3-benzoxadiazol-4-yl)amino]-D-glucose; 2-NBD-glucose

Lot # FBS2210



Fluorescent glucose uptake probe. May be used to monitor glucose uptake in live cells and as a cell viability indicator<sup>1,2</sup>. Has been used to measure glucose uptake in cultured hippocampal astrocytes using confocal epifluorescence microscopy<sup>3</sup>. NBD fluorescence typically displays excitation/emission maxima of 465/540 nm. Cell permeable.

- 1) Yoshioka *et al.* (1996), *A novel fluorescent derivative of glucose applicable to the assessment of glucose uptake activity of Escherichia coli*; *Biochim. Biophys. Acta*, **1289** 5
- 2) Yamada *et al.* (2000), *Measurement of glucose uptake and intracellular calcium concentration in single, living, pancreatic beta-cells*; *J. Biol. Chem.*, **275** 22278
- 3) Loaiza *et al.* (2003), *Glutamate triggers rapid glucose transport stimulation in astrocytes as evidenced by real-time confocal microscopy*; *J. Neurosci.*, **23** 7337

**PHYSICAL DATA**

Molecular Weight:	342.27
Molecular Formula:	C <sub>12</sub> H <sub>14</sub> N <sub>4</sub> O <sub>8</sub>
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 10 mg/ml)
Physical Description:	Dark orange thin film
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.