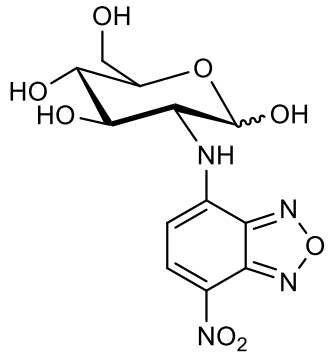
Catalog # 10-1459

2-NBD-Glucose

186689-07-6

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

Lot # FBS1110



Fluorescent glucose uptake probe. May be used to monitor glucose uptake in live cells and as a cell viability indicator[1,2]. Has been used to measure glucose uptake in cultured hippocampal astrocytes using confocal epifluorescence microscopy[3]. 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:	$C_{12}H_{14}N_4O_8$
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.

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