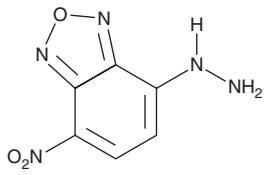
PRODUCT INFORMATION

NBD-Hydrazine

Item No. 42611

CAS Registry No.:	90421-78-6
Formal Name:	4-hydrazinyl-7-nitro-2,1,3-benzoxadiazole
Synonyms:	NBDH, NBD-H.NH_2NH_2
MF:	$C_6H_5N_5O_3$
FW:	195.1
Purity:	≥95%
Ex./Em. Max:	468/535 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

NBD-hydrazine is supplied as a solid. A stock solution may be made by dissolving the NBD-hydrazine in the solvent of choice, which should be purged with an inert gas. NBD-hydrazine is soluble (≥10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NBD-hydrazine can be prepared by directly dissolving the solid in aqueous buffers. NBD-hydrazine is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

NBD-hydrazine is an aldehyde- and ketone-reactive fluorescent probe.[1] It displays excitation/emission maxima of 468/535 nm, respectively, in the presence of aldehydes or ketones. NBD-hydrazine has also been used as a starting material in the synthesis of malondialdehyde-reactive fluorescent probes and a synthetic intermediate in the synthesis of cupric and chromic ion colorimetric sensors.[2,3]

References

1. Uzu, S., Kanda, S., Imai, K., *et al.* Fluorogenic reagents: 4-Aminosulphonyl-7-hydrazino2,1,3-benzoxadiazole, 4-(N,N-dimet hylaminosu lp honyl)-7-hydrazino-2,1,3-enzoxadiazole and 4-hydrazino-7-nitro-2,1,3-benzoxadiazole hydrazine for aldehydes and ketones. *Analyst* **115**, 1477-1482 (1990).
2. Wang, X., Liu, X., Cheng, T., *et al.* Development of 4-hydrazinyl-7-nitrobenzofurazan as a fluorogenic probe for detecting malondialdehyde in biological samples. *Sens. Actuators B Chem.* **254**, 248-254 (2018).
3. S.Y., L., Bok, K.H., Kim, J.A., *et al.* Simultaneous detection of Cu^{2+} and Cr^{3+} by a simple Schiff-base colorimetric chemosensor bearing NBD (7-nitrobenzo-2-oxa-1,3-diazolyl) and julolidine moieties. *Tetrahedron* **72(35)**, 5563-5570 (2016).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM