# PRODUCT INFORMATION

## NBD-Pen

*Item No. 25806*

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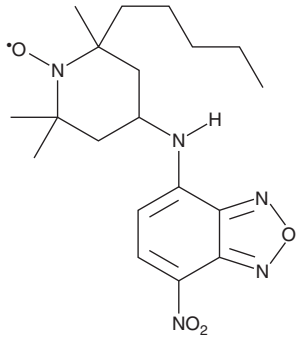
|---|---|
| **CAS Registry No.:** | 1955505-54-0 |
| **Formal Name:** | 2,2,6-trimethyl-4-[(7-nitro-2,1,3-benzoxadiazol-4-yl)amino]-6-pentyl-1-piperidinyloxy |
| **MF:** | $C_{19}H_{28}N_5O_4$ |
| **FW:** | 390.5 |
| **Purity:** | ≥95% (mixture of isomers) |
| **Ex./Em. Max:** | 470/530 nm |
| **Supplied 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-Pen is supplied as a solid. A stock solution may be made by dissolving the NBD-pen in the solvent of choice, which should be purged with an inert gas. NBD-Pen is soluble in methanol.

### Description

NBD-Pen is a turn-on fluorescent probe for lipid radicals.[1] Upon reaction with lipid radicals, NBD-pen displays excitation/emission maxima of 470 and 530 nm, respectively. It is selective for lipid radicals over peroxide, oxygen, hypochlorite, and hydroxy radicals in cell-free assays. NBD-Pen has been used in the detection of lipid radicals in *in vitro* and *in vivo* models of hepatocellular carcinoma and oxidative disease.[1,2]

### References


1. Yamada, K., Mito, F., Matsuoka, Y., *et al.* Fluorescence probes to detect lipid-derived radicals. *Nat. Chem. Biol.* **12(8)**, 608-613 (2016).
2. Ishida, Y., Okamoto, Y., Matsuoka, Y., *et al.* Detection and inhibition of lipid-derived radicals in low-density lipoprotein. *Free Radic. Biol. Med.* **113**, 487-493 (2017).





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