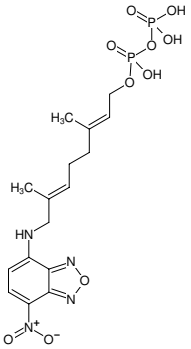
DATA SHEET

Jena Bioscience

NBD-GPP

3,7-dimethyl-8-(7-nitro-benzo[1,2,5]oxadiazol-4-ylamino),
-octa-2,6-diene-1- pyrophosphate
Fluorescent lipid donor for protein farnesyltransferase (FTase)

Cat. No.	Amount
LI-014	20 µl



Structural formula of NBD-GPP

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Additional Storage Conditions: avoid freeze/thaw cycles, store dark

Shelf Life: 12 months

Molecular Formula: $C_{16}H_{22}N_4O_{10}P_2$

Molecular Weight: 492.31 g/mol

Purity: ≥ 95 % (HPLC)

Form: liquid (Supplied as 1 mM solution in 25 mM $(NH_4)_2CO_3$)

Concentration: 1 mM

Spectroscopic Properties: λ_{exc} 480 nm, λ_{em} 530 nm,
ε 11.0 L $mmol^{-1}$ cm^{-1} (pH 7.5)

Description:
NBD-GPP is a fluorescent analog of geranyl pyrophosphate (GPP). It serves as lipid donor for farnesyltransferase (FTase) - one of the three mammalian protein prenyltransferases. The attachment of the NBD-geranyl group to protein substrates allows for efficient fluorescence based FTase activity assays and inhibitor screening.

Selected References:

Nguyen *et al.* (2009) Analysis of the eukaryotic prenylome by isoprenoid affinity tagging. *Nature Chemical Biology.* **5 (4)**:227.

Wu *et al.* (2007) Synthesis of a fluorescent analogue of geranylgeranyl pyrophosphate and its use in a high-throughput fluorometric assay for Rab geranylgeranyltransferase. *Nat. Protoc.* **2 (11)**:2704.

Dursina *et al.* (2006) Identification and specificity profiling of protein prenyltransferase inhibitors using new fluorescent phosphoisoprenoids. *J. Am. Chem. Soc.* **128 (9)**:2822.