

Product Data Sheet

Product Name: PSP
Cat. No.: GC49691

Chemical Properties

Cas. No. 3030735-86-2

SMILES O=C(OC1=CC(C=CC(/C=C/C2=C/C(CC(C)(C)C2)=C(C#N)/C#N)=C3)=C3C=C1)C4=C(F)C=CC([N+])([O-])=O)=C4

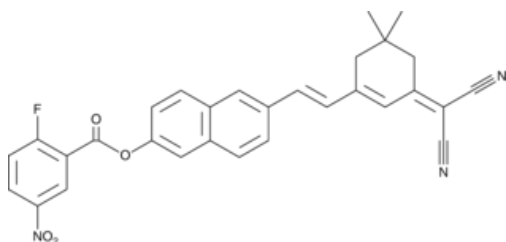
Formula C₃₀H₂₂FN₃O₄ M.Wt 507.5

Solubility DMF: 1 mg/ml, DMSO: insol, Ethanol: Storage -20°C
insol, PBS (pH 7.2): insol

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

PSP is a two-photon fluorescent probe for hydrogen polysulfide (H₂S_n), a reactive sulfur species (RSS) formed during ferroptosis.¹ Upon reaction with H₂S_n, the 2-fluoro-5-nitro-benzoate quenching group of PSP is removed, resulting in the release of a near-infrared emitting product. PSP is selective for H₂S_n over a panel of reactive oxygen species (ROS), reactive nitrogen species (RNS), metal ions, and sulfur-containing ions. It has been used to detect H₂S_n in live cells and tumor spheroids *in vitro*.

1. Di, X., Ge, C., Liu, Y., et al. Monitoring hydrogen polysulfide during ferroptosis with a two-photon

Caution: Product has not been fully validated for medical applications. For research use only.

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fluorescent probeTalanta232122467(2021)

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