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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

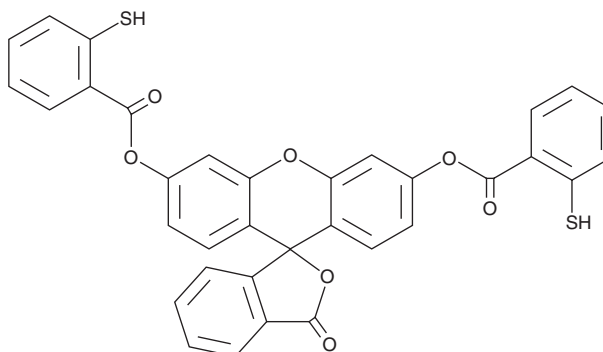


Sulfane Sulfur Probe 4

Item No. 37921

CAS Registry No.: 1810731-98-6
Formal Name: 2-mercapto-benzoic acid, 6'-[(2-mercaptobenzoyl)oxy]-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3'-yl ester

Synonym: SSP4
MF: C₃₄H₂₀O₇S₂
FW: 604.6
Purity: ≥95%
UV/Vis.: λ_{max}: 227 nm
Ex./Em. Max: 494/515 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Sulfane sulfur probe 4 (SSP4) is supplied as a solid. A stock solution may be made by dissolving the SSP4 in the solvent of choice, which should be purged with an inert gas. SSP4 is soluble in chloroform, DMSO, and dimethyl formamide.

Description

SSP4 is a fluorescent probe for sulfane sulfur species, including endogenously generated hydrogen sulfide-derived polysulfides, hydropersulfides, and persulfides.¹ In the presence of sulfane sulfur species, SSP4 is subject to a nucleophilic reaction resulting in the formation of fluorescein, which displays excitation/emission maxima of 494/515 nm, respectively, and two molecules of 1,2-benzodithiol-3-one.^{1,2} SSP4 has been used to determine localization of H₂S₃ in primary mouse neurons and to detect polysulfides in *L. japonicus* seedling roots.^{3,4}

References

1. Bibli, S.-I., Luck, B., Zukunft, S., *et al.* A selective and sensitive method for quantification of endogenous polysulfide production in biological samples. *Redox Biol.* **18**, 295-304 (2018).
2. Johnson, I. and Spence, M.T.Z. The molecular probes handbook—a guide to fluorescent probes and labeling technologies. 11th ed., *Life Technologies* (2010).
3. Kimura, Y., Toyofuku, Y., Koike, S., *et al.* Identification of H₂S₃ and H₂S produced by 3-mercaptopyruvate sulfurtransferase in the brain. *Sci. Rep.* **5**:14774, (2015).
4. Fukudome, M., Shimada, H., Uchi, N., *et al.* Reactive sulfur species interact with other signal molecules in root nodule symbiosis in *Lotus japonicus*. *Antioxidants (Basel)* **9**(2), 145 (2020).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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