

PRODUCT INFORMATION



Coppersensor 1

Item No. 45155

CAS Registry No.: 874748-20-6

Formal Name: (T-4)[4-ethyl-β-(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene-κN)-N, N-bis[2-[[2-(ethylthio)ethyl]thio]ethyl]-3,5-dimethyl-1H-pyrrole-2-ethanaminato-κN¹] difluoro-boron

Synonym: CS1

MF: C₃₀H₅₀BF₂N₃S₄

FW: 629.8

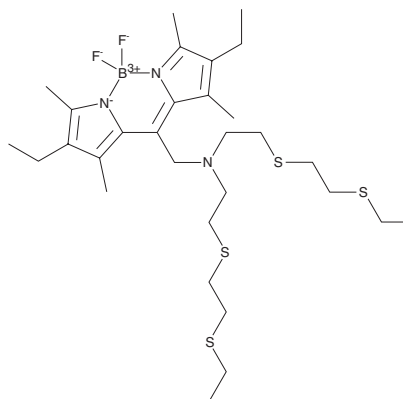
Purity: ≥95%

Abs./Em. Max: 540/561 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

Coppersensor 1 (CS1) is supplied as a solid. A stock solution may be made by dissolving the CS1 in the solvent of choice, which should be purged with an inert gas. CS1 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

CS1 is a water-soluble, membrane-permeable turn-on fluorescent probe for copper(I).¹ It is selective for copper(I) over copper(II), manganese(II), iron(II), cobalt(II), and nickel(II) at 50 μM and calcium(II), magnesium(II), and zinc(II) at 2 mM. CS1 binds to copper(I) with an apparent K_d value of 3.6 pM. It displays absorbance and emission maxima of 540 and 561 nm, respectively, in the presence of copper(I). CS1 has been used to detect intracellular copper(I) in live cells.

Reference

1. Zeng, L., Miller, E.W., Pralle, A., et al. A selective turn-on fluorescent sensor for imaging copper in living cells. *J. Am Chem. Soc.* **128**(1), 10-11 (2006).

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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