

Sodium Polysulfide for H₂S Study



- SulfoBiotics- Sodium disulfide (Na₂S₂) [Code#: SB02-10] 5 x 100 mg
 - SulfoBiotics- Sodium trisulfide (Na₂S₃) [Code#: SB03-10] 5 x 100 mg
 - SulfoBiotics- Sodium tetrasulfide (Na₂S₄) [Code#: SB04-10] 5 x 100 mg
 - SulfoBiotics- Sodium Polysulfide Set [Code#: SB13-10] 3 x 100 mg
- *Contents of SB13-10: 100 mg each of SB02-10, SB03-10 and SB04-10

Sulfane sulfurs including polysulfides and persulfides are considered as pools of hydrogen sulfide in vivo and play important roles in protein sulfhydration that regulates the activities of several proteins such as tyrosine phosphatase, NF-κB, and ion channels. Sodium polysulfides are sulfane sulfur donors that show distinct cellular functions as demonstrated in recent reports (1, 2). Thus, sodium polysulfides with a different number of sulfurs are important chemical tools for investigation of these functions. We supply highly purified sodium disulfide, sodium trisulfide, and sodium tetrasulfide.



Sodium Disulfide (Na₂S₂)

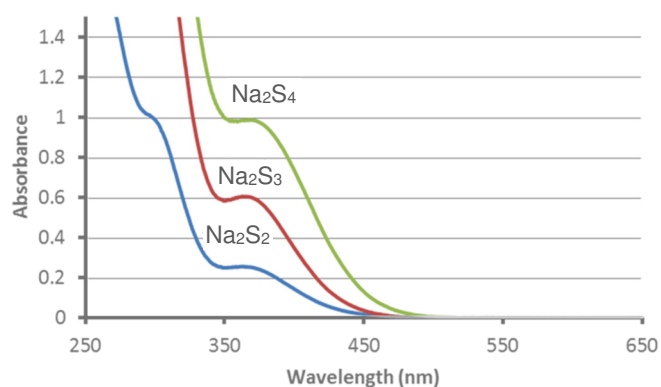


Sodium Trisulfide (Na₂S₃)



Sodium Tetrasulfide (Na₂S₄)

UV SPECTRA



UV spectra of 1 mM Sodium Polysulfide in aqueous solution

APPEARANCE



Dojindo



Supplier A

Comparison of Sodium Tetrasulfide (Na₂S₄)

REFERENCES

- 1) Y. Kimura, Y. Mikami, K. Osumi, M. Tsugane, J. Oka, and H. Kimura, *FASEB J.*, **2013**, 27, 2451.
- 2) S. Koike, Y. Ogasawara, N. Shibuya, H. Kimura, and K. Ishii, *FEBS Lett.*, **2013**, 587, 3548.

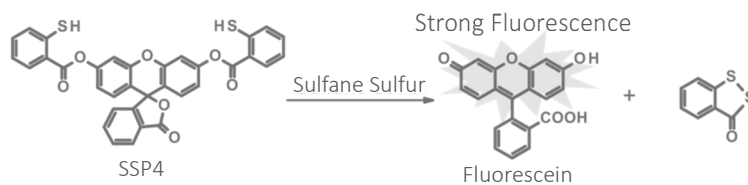


STATE OF THE ART LIFE SCIENCE TECHNOLOGIES

Fluorescent Probe for Sulfane Sulfurs

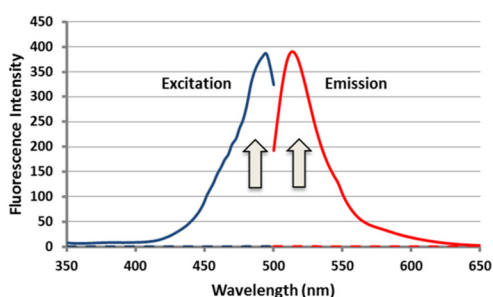
-SulfoBiotics- SSP4 [Code#: SB10-10] 1 mg

- ✓ No reactions with hydrogen sulfide and other thiols such as reduced glutathione and cysteine
- ✓ Quick fluorescent response to sulfane sulfurs
- ✓ More efficient and sensitive than SSP2 which has been reported previously as a fluorescent probe
- ✓ Applicable for cellular imaging



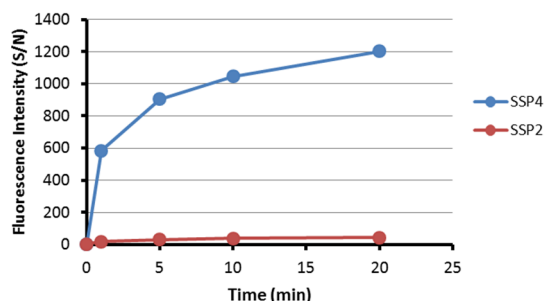
Reaction Mechanism of SSP4 with Sulfane Sulfur

FLUORESCENCE PROPERTY



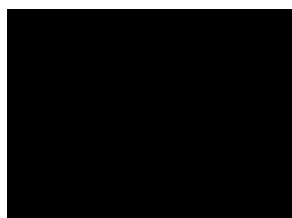
Excitation and Fluorescence Spectra Change of SSP4 with Sulfane Sulfurs

RESPONSE CURVE

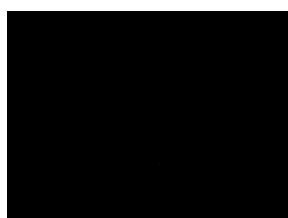


Comparison of fluorescent response to Na_2S_3 between SSP2 and SSP4

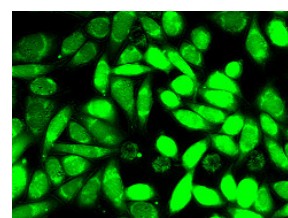
FLUORESCENCE IMAGES



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100 μM Na_2S



100 μM Na_2S_3

Fluorescence images of sulfane sulfurs with CHO cells

The cells were incubated with 20 μM SSP4 for 15 min, washed, and treated with each reagent.

REFERENCES

- 1) W. Chen, C. Liu, B. Peng, Y. Zhao, A. Pacheco, and M. Xian, *Chem. Sci.*, **2013**, *4*, 2892.
- 2) T. Ida, T. Sawa, H. Ihara, Y. Tsuchiya, Y. Watanabe, Y. Kumagai, M. Suematsu, H. Motohashi, S. Fujii, T. Matsunaga, M. Yamamoto, K. Ono, N. O. Devarie-Baez, M. Xian, J. M. Fukuto, and T. Akaike, *Proc Natl Acad Sci USA.*, **2014**.