

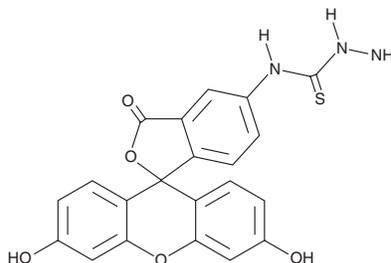
PRODUCT INFORMATION



Fluorescein-5-thiosemicarbazide

Item No. 19587

CAS Registry No.: 76863-28-0
Formal Name: N-(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)-hydrazinecarbothioamide
Synonym: FTSC
MF: C₂₁H₁₅N₃O₅S
FW: 421.4
Purity: ≥95%
UV/Vis.: λ_{max}: 226, 275 nm
Ex./Em. Max: 495/517 nm
Supplied as: A crystalline 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

Fluorescein-5-thiosemicarbazide (FTSC) is supplied as a crystalline solid. A stock solution may be made by dissolving the FTSC in the solvent of choice. FTSC is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of FTSC in these solvents is approximately 2 and 0.5 mg/ml, respectively.

FTSC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FTSC should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. FTSC has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

FTSC is an amine-containing fluorescent probe with excitation/emission maxima of 495/517 nm, respectively.¹ It can be reversibly coupled to aldehydes and ketones. FTSC has been used to fluorescently tag diverse molecules, including RNA, saccharides, sialylated glycoproteins, carbonylated proteins, and N-acetylneuraminic acid.¹⁻⁷

References

1. Zhang, Y., Wang, Z., Zhang, X., et al. *Carbohydr. Res.* **346(14)**, 2156-2164 (2011).
2. Mohanty, J. G., Bhamidipaty, S., Evans, M. K., et al. *Anal. Biochem.* **400**, 289-294 (2010).
3. Wu, T. P., Ruan, K. C., and Liu, W. Y. *Nucleic Acids Res.* **24(17)**, 3472-3473 (1996).
4. Zhang, Y., Yuan, J., Song, J., et al. *Glycobiology* **23(6)**, 643-653 (2013).
5. Havé, M., Leitao, L., Bagard, M., et al. *Plant. Biol. (Stuttg)* **17(5)**, 973-979 (2015).
6. Colombo, G., Clerici, M., Garavaglia, M. E., et al. *J. Chromatogr. B. Analyt. Technol. Biomed. Life. Sci.* **1019**, (2016).
7. Dong, R., Li, F., Qin, S., et al. *Data Brief* **8**, (2016).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 05/12/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM