

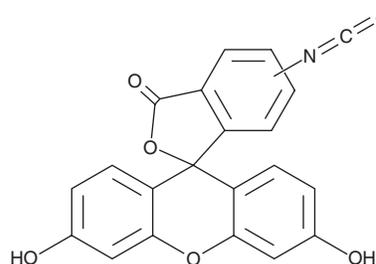
# PRODUCT INFORMATION



## Fluorescein 5(6)-isothiocyanate

Item No. 33264

**CAS Registry No.:** 27072-45-3  
**Formal Name:** 3',6'-dihydroxy-5(or 6)-isothiocyanato-spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one  
**Synonyms:** FITC, Fluorescein isothiocyanate  
**MF:** C<sub>21</sub>H<sub>11</sub>NO<sub>5</sub>S  
**FW:** 389.4  
**Purity:** ≥90% (mixture of isomers)  
**UV/Vis.:** λ<sub>max</sub>: 224 nm  
**Ex./Em. Max:** 485/535 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(6)-isothiocyanate (FITC) is supplied as a crystalline solid. A stock solution may be made by dissolving the FITC in the solvent of choice, which should be purged with an inert gas. FITC is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of FITC in these solvents is approximately 5 and 10 mg/ml, respectively. FITC is slightly soluble in ethanol.

FITC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FITC should first be dissolved in DMF and then diluted with the aqueous buffer of choice. FITC has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

FITC is an amine-reactive fluorescent probe.<sup>1,2</sup> It reacts with amine groups to form conjugates with proteins for detection by various fluorescent-based applications. FITC displays excitation/emission maxima of 485/535 nm, respectively.<sup>2</sup>

### References

1. Twining, S.S. Fluorescein isothiocyanate-labeled casein assay for proteolytic enzymes. *Anal. Biochem.* **143(1)**, 30-34 (1984).
2. Chaganti, L.K., Venkatakrisnan, N., and Bose, K. An efficient method for FITC labelling of proteins using tandem affinity purification. *Biosci. Rep.* **38(6)**, BSR20181764 (2018).

#### 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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#### 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