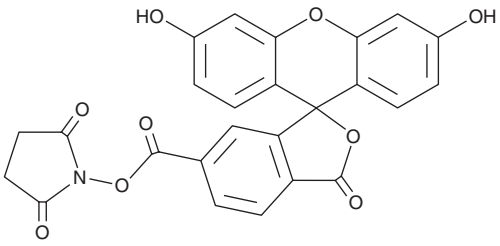
PRODUCT INFORMATION

6-CFSE

Item No. 41342



CAS Registry No.:	92557-81-8
Formal Name:	3′,6′-dihydroxy-3-oxo-spiro[isobenzofuran-1(3H),9′-[9H]xanthene]-6-carboxylic acid, 2,5-dioxo-1-pyrrolidinyl ester
Synonyms:	6-Carboxyfluorescein NHS ester, 6-Carboxyfluorescein N-hydroxysuccinimide ester, 6-Carboxyfluorescein N-Succinimidyl ester, 6-FAM SE, 6-FAM N-succinimidyl ester
MF:	$C_{25}H_{15}NO_9$
FW:	473.4
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Ex./Em. Max:	492/518 nm

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

Laboratory Procedures

6-CFSE is supplied as a solid. A stock solution may be made by dissolving the 6-CFSE in the solvent of choice, which should be purged with an inert gas. 6-CFSE is slightly soluble (0.1-1 mg/ml) in DMSO and acetonitrile.

Description

6-CFSE is cell-permeable fluorogenic probe that is composed of the amine-reactive fluorescent probe 6-carboxyfluorescein (Item No. 21233) and a cleavable succinimidyl ester.[1] It is cleaved by intracellular esterases to produce 6-carboxyfluorescein, which displays excitation/emission maxima of 492/518 nm, respectively. The racemic mixture of 6-CFSE and 5-CFSE (Item No. 16802) has been used to determine the intracellular pH of bacteria, quantify cell division *in vitro* and *in vivo*, and track lymphocyte migration *in vivo*.[2-4]

References

1. Fischer, R., Mader, O., Jung, G., *et al.* Extending the applicability of carboxyfluorescein in solid-phase synthesis. *Bioconjug. Chem.* **14(3)**, 653-660 (2003).
2. Breeuwer, P., Drocourt, J., Rombouts, F.M., *et al.* A novel method for continuous determination of the intracellular pH in bacteria with the internally conjugated fluorescent probe 5 (and 6-)-carboxyfluorescein succinimidyl ester. *Appl. Environ. Microbiol.* **62(1)**, 178-183 (1996).
3. Lyons, A.B. Analysing cell division in vivo and in vitro using flow cytometric measurement of CFSE dye dilution. *J. Immunol. Methods* **243(1-2)**, 147-154 (2000).
4. Parish, C.R., Glidden, M.H., Quah, B.J.C., *et al.* Use of the intracellular fluorescent dye CFSE to monitor lymphocyte migration and proliferation. *Curr. Protoc. Immunol. Supp.* **84**, 4.9.1-4.9.13 (2009).

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, 08/12/2024

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