

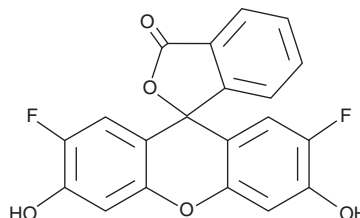
PRODUCT INFORMATION



Oregon Green™ 488

Item No. 35372

CAS Registry No.: 195136-58-4
Formal Name: 2',7'-difluoro-3',6'-dihydroxy-spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one
Synonyms: OG 488, 2',7'-Difluorofluorescein
MF: C₂₀H₁₀F₂O₅
FW: 368.3
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Ex./Em.: 490/514 nm



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

Laboratory Procedures

Oregon Green™ 488 is supplied as a solid. A stock solution may be made by dissolving the Oregon Green™ 488 in the solvent of choice, which should be purged with an inert gas. Oregon Green™ 488 is soluble in chloroform and DMSO.

Description

Oregon Green™ 488 is a fluorinated fluorescein dye.^{1,2} It exists as a tautomer in aqueous solutions.² Oregon Green™ 488 has minimal pH dependence at physiological pH but it can be used as an indicator for intracellular pH due to its low pK_a of 4.8.^{2,3} It is less susceptible to photobleaching than fluorescein. Oregon Green™ 488 has been conjugated to antibodies and proteins, as well as DNA, for use in labeling and detection.²⁻⁴ It displays excitation/emission maxima of 490/514 nm, respectively.¹

References

1. Sun, W.-C., Gee, K.R., Klaubert, D.H., *et al.* Synthesis of fluorinated fluoresceins. *J. Org. Chem.* **62**(19), 6469-6475 (1997).
2. Orte, A., Crovetto, L., Talavera, E.M., *et al.* Absorption and emission study of 2',7'-difluorofluorescein and its excited-state buffer-mediated proton exchange reactions. *J. Phys. Chem. A.* **109**(5), 734-747 (2005).
3. Leung, K., Chakraborty, K., Saminathan, A., *et al.* A DNA nanomachine chemically resolves lysosomes in live cells. *Nat. Nanotechnol.* **14**(2), 176-183 (2019).
4. Yu, P., Lasagna, M., Pawlyk, A.C., *et al.* IIA^{Glc} inhibition of glycerol kinase: A communications network tunes protein motions at the allosteric site. *Biochemistry* **46**(43), 12355-12365 (2007).

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, 11/08/2022

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