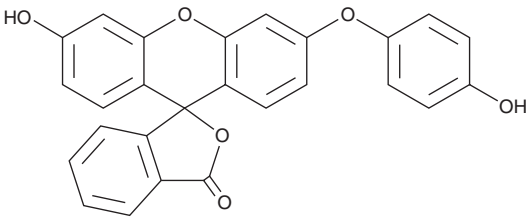
PRODUCT INFORMATION

HPF

Item No. 10159

CAS Registry No.:	359010-69-8
Formal Name:	(2-[6-(4'-hydroxy)phenoxy-3H-xanthene-3-on-9-yl]benzoic acid
MF:	$C_{26}H_{16}O_6$
FW:	424.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 228, 277 nm
Supplied as:	A 1 mg/ml solution in methyl acetate
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

HPF is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the HPF under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of HPF in these solvents is approximately 20 mg/ml.

HPF is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of HPF should be diluted with the aqueous buffer of choice. HPF has a solubility of approximately 0.15 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method.

Description

HPF is a cell-permeable aromatic amino-fluorescein derivative that has little intrinsic fluorescence.[1] It undergoes oxidation only by highly reactive oxygen species (hROS) such as the hydroxyl radical, peroxynitrite, and hROS generated from a peroxidase/H_2O_2 system. It is inert to hypochlorite ion, nitric oxide, hydrogen peroxide (H_2O_2), superoxide, and other oxidants. Upon oxidation, HPF is converted to the highly fluorescent molecule fluorescein, with excitation/emission maxima of 490/515 nm, respectively, allowing the simple direct detection of highly reactive biological radicals.

Reference

1. Setsukinai, K.i., Urano, Y., Kakinuma, K., *et al.* Development of novel fluorescence probes that can reliably detect reactive oxygen species and distinguish specific species. J. Biol. Chem. **278(5)**, 3170-3175 (2003).

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