

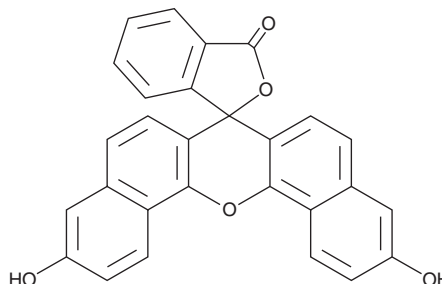
PRODUCT INFORMATION



Naphthofluorescein

Item No. 13055

CAS Registry No.: 61419-02-1
Formal Name: 3,11-dihydroxy-spiro[7H-dibenzo[c,h]xanthene-7,1'(3'H)-isobenzofuran]-3'-one
Synonym: CCG 8295
MF: C₂₈H₁₆O₅
FW: 432.4
Purity: ≥98%
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 233, 255 nm
Stability: -20°C
Stability: ≥4 years



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

Laboratory Procedures

For long term storage, we suggest that naphthofluorescein be stored as supplied at -20°C. It should be stable for at least two years.

Naphthofluorescein is supplied as a crystalline solid. A stock solution may be made by dissolving the naphthofluorescein in an organic solvent purged with an inert gas. Naphthofluorescein is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of naphthofluorescein in these solvents is approximately 2 mg/ml for ethanol and DMSO and approximately 10 mg/ml for DMF.

Naphthofluorescein is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, naphthofluorescein should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Naphthofluorescein has a solubility of approximately 90 µg/ml in a 1:10 solution of DMF:PBS (pH 7.0) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Furin is a proprotein convertase, converting precursor proteins to functional proteins within the Golgi/*trans*-Golgi secretory pathway. Naphthofluorescein is a cell-permeable inhibitor of furin (IC₅₀ = 12 µM).¹ It inhibits furin-mediated cleavage of the pro-form of membrane type-1 matrix metalloproteinase (MT₁-MMP), resulting in decreased levels of active MT₁-MMP.¹ This, in turn, suppresses MMP-2 activation and reduces cell motility in CHO cells expressing proMT₁-MMP.¹ Naphthofluorescein significantly inhibits the invasion of Matrigel by the human fibrosarcoma cell line, HT1080.¹ The effects of this furin inhibitor on other furin-mediated processes, *in vivo* or *in vitro*, remain to be determined.

Reference

1. Coppola, J.M., Bhojani, M.S., Ross, B.D., *et al.* A small-molecule furin inhibitor inhibits cancer cell motility and invasiveness. *Neoplasia* **10**(4), 363-370 (2008).

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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