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DATASHEET

FITC Phalloidin

Product overview

Name	FITC Phalloidin
Cat No	HB0814
Alternative names	Fluorescein Phalloidin, Phalloidin Fluorescein Isothiocyanate Labeled, Phalloidin (FITC), FI-phalloidin
Biological description	Overview

Fluorescein Isothiocyanate (FITC) labeled Phalloidin binds and labels F-actin but not G-actin.

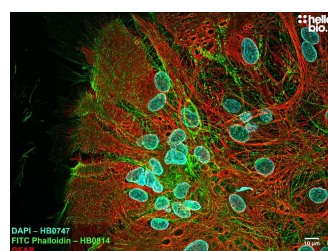
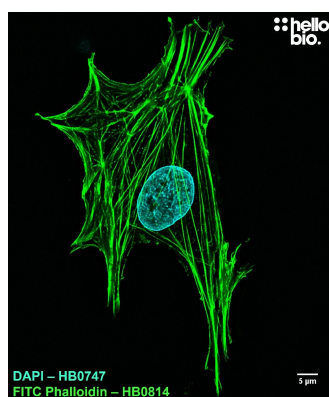
It is a green fluorescent stain which allows high-contrast discrimination of actin. Non-specific binding of phalloidin is negligible and it provides more intense labeling of F-actin than antibodies.

Uses and applications

FITC Phalloidin has a wide range of applications and can be used with formaldehyde-fixed and permeabilized tissue sections, cell cultures and cell-free experiments. It may also be used with de-paraffinized paraffin-embedded samples.

Biological action	Dyes & stains
Purity	>93%
Description	Green fluorescent cytoskeleton stain. Binds and labels F-actin.

Images



Biological Data

Application notes	For our 300 tests pack, to make your stock solution, you should dissolve the contents of the vial in 1.5 mL of methanol or DMSO.
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#Protocol 1: FITC-Phalloidin labelling of primary cultured neurones.

- Primary neurones were isolated and cultured from P2 rats and grown for three weeks before being fixed with 4% paraformaldehyde.
- Coverslips containing neuronal cell cultures were labelled for GFAP following standard immunohistochemical approaches.
- The secondary antibody was incubated for 1 hour with the addition of FITC Phalloidin (183nM, 1:40 dilution of staining solution)
- Coverslips were then submerged in 1µg/ml DAPI diluted in PBS for 1 minute.
- Coverslips were mounted and imaged with a fluorescent microscope.

Solubility & Handling

Storage instructions
Solubility overview
Important

-20 °C
 Soluble in DMSO (NB: may appear colourless in very dry solvent)
 This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

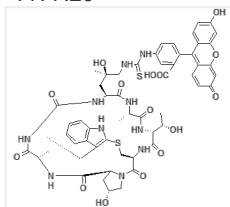
Chemical Data

Chemical name

7-[(4R)-N5-[[[(3,6-Dihydroxy-3-oxospiro[isobenzofuran-1(3H),9-[9H]xanthen]-5-yl)amino]thioxomethyl]-4-hydroxy-4-methyl-L-ornithine]phalloidin

Molecular Weight
Chemical structure

1177.26



Molecular Formula
CAS Number
PubChem identifier
SMILES

C₅₆H₆₀N₁₀O₁₅S₂
 915026-99-2
 347679539
S=C(NCC1CSC(C)(S1)CC1NC(=O)C2NC(=O)C(C)NC(=O)C3CC(O)CN3C(=O)C(CSc3[nH]c4ccccc4c3C2)NC(=O)C(NC(=O)C(C)NC1=O)C(C)O)Nc1ccc2c(c1)C(=O)OC12c2ccc(O)cc2Oc2cc(O)ccc12
 WUSBHBKXQMYBEH-ADESOLLTSA-N
 MFCD00147902
 496
 516 nm

References

Cytoskeletal F-actin patterns quantitated with fluorescein isothiocyanate-phalloidin in normal and transformed cells

Verderame M *et al* (1980) Proc Natl Acad Sci U S A 77(11)

PubMedID [6256751](#)

Labeling cytoskeletal F-actin with rhodamine phalloidin or fluorescein phalloidin for imaging

Chazotte B (2010) Cold Spring Harb Protoc 2010(5)

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Quantification of Filamentous Actin (F-actin) Puncta in Rat Cortical Neurons

Li H *et al* (2016) J Vis Exp 108

PubMedID [26889716](#)