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## DATASHEET

### FITC Phalloidin

#### Product overview

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

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

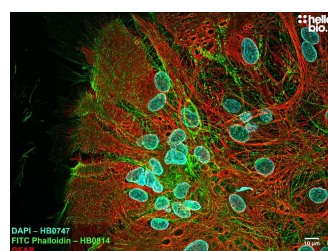
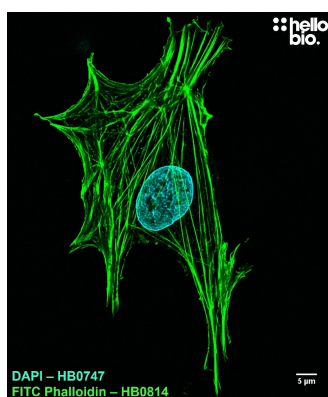
It is a green fluorescent stain which allows high-contrast discrimination of actin. Non-specific binding of phalloidin is negligible and it provides more intense labeling of F-actin than antibodies.

#### 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.

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

#### Images



#### Biological Data

<b>Application notes</b>	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

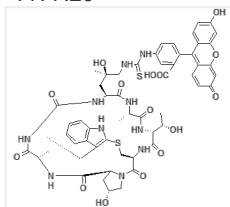
## Chemical Data

**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**

C<sub>56</sub>H<sub>60</sub>N<sub>10</sub>O<sub>15</sub>S<sub>2</sub>  
 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)

**PubMedID** [20439405](#)

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

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

**PubMedID** [26889716](#)