

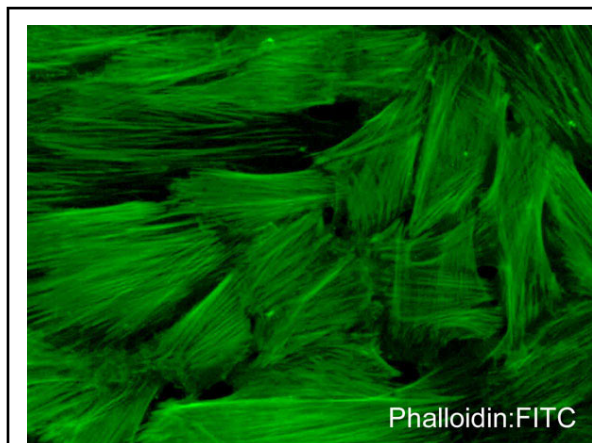
Background

Phalloidin is a fungal toxin isolated from the poisonous mushroom *Amanita phalloides*. Its toxicity is attributed to the ability to bind F-actin in liver and muscle cells. As a result of binding phalloidin, actin filaments become strongly stabilized. Phalloidin has been found to bind only to polymeric and oligomeric forms of actin, and not to monomeric actin.

Fluorescent conjugates of phalloidin are commonly used to label actin filaments for immunocytochemical and immunohistochemical applications. Both rhodamine and fluorescein labeled phalloidin can be used to localize and quantify actin filaments in cells and tissues.

References

- Wulf, E. et al. (1979) Proc. Nat. Acad. of Sci.(USA). 76:4498.
Faulstich, H. et al. (1983) Exp. Cell Res. 144:73.
Faulstich, H. et al. (1988) J. Muscle Res. Cell Motility. 9:370.



Fluorescent labeling of actin filaments in paraformaldehyde-fixed and NP40-permeabilized A7r5 cells. The fixed cells were labeled with phalloidin:FITC (PF7501) at a dilution of 1:500.

Conjugate

Phalloidin conjugated to FITC via the side chain of amino acid 7. The conjugate has a molecular weight of 1250. This fluorochrome has an excitation maximum of 495 nm and emission maximum of 513 nm.

Buffer and Storage

Phalloidin conjugates are supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

ICC	1:500
IHC	1:500

End user should determine optimal dilution for their particular applications and experiments.

Specificity

Phalloidin:FITC can be used for immunocytochemical and immunohistochemical labeling of actin filaments. Phalloidin:FITC binds polymeric and oligomeric actin, but does not bind monomeric actin. The conjugates can be used to label actin filaments in many species, including human, mouse, rat, chicken, and fish.

Related Products

AM2021	Actin (C-terminal region) Mouse Monoclonal
AP1671	Actin (Tyr-53), phospho-specific Rabbit Polyclonal
AP1651	Actin (N-terminal region) Rabbit Polyclonal
PF7551	Phalloidin:TRITC Reagent
MS3031	Anti-Mouse Ig:DyLight® 594 Goat Polyclonal

Product References

- Barnes J et al. (2018) Mol Autism. 9:44.
ICC: human stem cells
Kline, A. et al. (2018) Dev Biol. 440(2):99.
ICC: Drosophila ovary

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