

## Phalloidin

Cat. No.:	HY-P0028	
CAS No.:	17466-45-4	
Molecular Formula:	C <sub>35</sub> H <sub>48</sub> N <sub>8</sub> O <sub>11</sub> S	
Molecular Weight:	788.87	A-(d-Thr)-C-(Hyp)-AWL (Sulfide bridge: Cys <sub>3</sub> -Trp <sub>6</sub> )
Sequence:	Ala-{d-Thr}-Cys-{Hyp}-Ala-Trp-Leu (Sulfide bridge: Cys <sub>3</sub> -Trp <sub>6</sub> )	
Sequence Shortening:	A-{d-Thr}-C-(Hyp)-AWL (Sulfide bridge: Cys <sub>3</sub> -Trp <sub>6</sub> )	
Target:	Fluorescent Dye	
Pathway:	Others	
Storage:	Sealed storage, away from moisture and light	
	Powder	-80°C 2 years -20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)	

### SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (12.68 mM; Need ultrasonic)					
	Preparing Stock Solutions	<div><div>Solvent</div><div>Concentration</div></div>	Mass	1 mg	5 mg	10 mg
		1 mM	1.2676 mL	6.3382 mL	12.6764 mL	
		5 mM	0.2535 mL	1.2676 mL	2.5353 mL	
		10 mM	0.1268 mL	0.6338 mL	1.2676 mL	
Please refer to the solubility information to select the appropriate solvent.						

### BIOLOGICAL ACTIVITY

Description	Phalloidin is a mushroom-derived toxin which can be used to label F-actin of the cytoskeleton with fluorochrome <sup>[1]</sup> .
In Vitro	Phalloidin staining will not work with methanol-fixed cells, probably because of the disruption of actin filament integrity, but it will work with cells fixed in 0.2% glutaraldehyde in PBS <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### PROTOCOL

Cell Assay <sup>[1]</sup>	Prepare a 1:200 dilution of the stock solution (300 units/mL) of fluorescein Phalloidin or rhodamine Phalloidin using PBS. Aspirate the cell medium from the cells grown on glass coverslips and rinse the cells three times with PBS. Fix the cells for 10
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min in the 3.7% formaldehyde solution. Rinse the fixed cells three times for 5 min each in PBS. Permeabilize the cells for 5 min in the 0.2% Triton X-100 solution. Rinse the fixed cells three times with PBS. Label the cells with the fluorescein or rhodamine Phalloidin for 5 to 10 min at room temperature. Rinse the cells three times in PBS for 5 min each time. Mount the cell and view the cells using either the fluorescein or rhodamine filter set, depending on the probe<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Drug Resist Updat. 2024 Mar, 73, 101056.
- Cell Commun Signal. 2024 Jan 17;22(1):44.
- J Mol Cell Biol. 2022 Jan 11;mjac001.
- J Cell Mol Med. 2024 Feb;28(4):e18130.
- Cell Signal. 2024 Mar 20:118:111147.

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## REFERENCES

[1]. Chazotte B. Labeling cytoskeletal F-actin with rhodamine phalloidin or fluorescein phalloidin for imaging. Cold Spring Harb Protoc. 2010 May;2010(5):pdb.prot4947.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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