

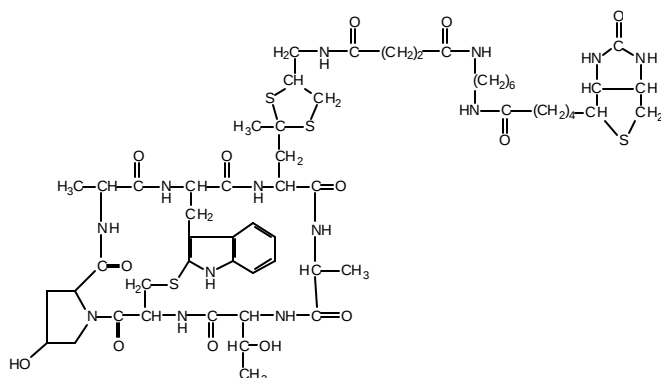
Product Information

PHALLOIDIN, BIOTIN

Product Number **P8716**

Storage Temperature -20°C

Synonyms: Biotinyl-hexamethylenediamidosuccinoyl-aminomethyldithiolano-phalloidin



Product Description

Molecular formula: $\text{C}_{57}\text{H}_{83}\text{N}_{13}\text{O}_{13}\text{S}_4$

Molecular weight: 1286.6

Appearance: amorphous solid

Purity: approximately 90%

Phalloidin is a fungal toxin isolated from the poisonous mushroom *Amanita phalloides*. The toxicity of phalloidin is attributed to its ability to bind to F actin in liver and muscle cells, thus strongly stabilizing the actin filaments. Phalloidin has been found to bind only to polymeric and oligomeric forms of actin and not to monomeric actin. The dissociation constant of the actin-phalloidin complex has been determined to be on the order of $3 \times 10^{-8} \text{ M}$.¹ Phalloidin differs from amanitin in its rapidity of action; at high dose levels, the

death of mice or rats occurs within 1 to 2 hours following phalloidin administration.

Biotin-labeled phalloidin has a long spacer between the two active components. Thus, it has the ability to bind both actin filaments and streptavidin simultaneously.²

Precautions and Disclaimer

WARNING: Extremely hazardous! Be aware of the risks and familiar with safety procedures before you use this product.

Preparation Instructions

Biotin-labeled phalloidin is soluble in methanol, dimethylsulfoxide (DMSO), and N,N-dimethylformamide (DMF).

Storage/Stability

Biotin-labeled phalloidin should be stored at $2-8^{\circ}\text{C}$ in a desiccator. Solutions should be prepared fresh and protected from light.

References

1. Faulstich, H. et al., Preparation of tetramethyl-rhodaminy-phalloidin and uptake of the toxin into short-term cultured hepatocytes by endocytosis. *Exp. Cell Res.* **144**, 73-82 (1983).
2. Faulstich, H., et al., Biotinylphallotoxins: preparation and use as actin probes. *J. Histochem. Cytochem.*, **37**, 1035-1045 (1989).
3. Vetter, J., Toxins of *Amanita phalloides*. *Toxicon.*, **36**, 13-24 (1998).

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