**PRODUCT INFORMATION**

**Conoidin A**  
*Item No. 15605*

**CAS Registry No.**: 18080-67-6  
**Formal Name**: 2,3-bis(bromomethyl)-quinoxaline 1,4-dioxide  
**MF**: C_{10}H_{8}Br_{2}N_{2}O_{2}  
**FW**: 348.0  
**Purity**: ≥98%  
**UV/Vis.**: \( \lambda_{\text{max}} \): 240, 278, 391 nm  
**Supplied as**: A crystalline solid  
**Storage**: -20°C  
**Stability**: ≥4 years

*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

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### Laboratory Procedures

Conoidin A is supplied as a crystalline solid. A stock solution may be made by dissolving the conoidin A in the solvent of choice, which should be purged with an inert gas. Conoidin A is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of conoidin A in these solvents is approximately 20 and 25 mg/ml, respectively.

Conoidin A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, conoidin A should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Conoidin A has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Peroxiredoxins are a widely conserved family of enzymes that function in antioxidant defense and act in redox signaling pathways. Increased expression of human peroxiredoxin is associated with cancer, cardiovascular dysfunction, and neurodegeneration. Conoidin A inactivates peroxiredoxins by covalently binding to the catalytic cysteine on the enzyme.\(^1,2\) It has been shown to inhibit peroxiredoxin II (IC\(_{50}\) = 23 µM) in the parasite *T. gondii* and peroxiredoxin I in the hookworm *A. ceylanicum*.\(^1,3\) At 5 µM, conoidin A can also inhibit the glucose oxidase-mediated hyperoxidation of mammalian peroxiredoxin I and II, but not peroxiredoxin III.\(^1\)

### References