

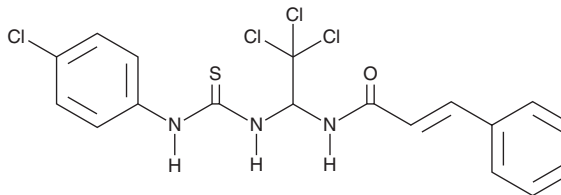
# PRODUCT INFORMATION



Sal-003

Item No. 23414

**CAS Registry No.:** 1164470-53-4  
**Formal Name:** (2E)-3-phenyl-N-[2,2,2-trichloro-1-[[[(4-chlorophenyl)amino]thioxomethyl]amino]ethyl]-2-propenamamide  
**MF:** C<sub>18</sub>H<sub>15</sub>Cl<sub>4</sub>N<sub>3</sub>OS  
**FW:** 463.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 217, 277 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.

## Laboratory Procedures

Sal-003 is supplied as a crystalline solid. A stock solution may be made by dissolving the Sal-003 in the solvent of choice. Sal-003 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of Sal-003 in these solvents is approximately 30 mg/ml.

Sal-003 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Sal-003 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Sal-003 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Sal-003 dose-dependently prevents dephosphorylation of eukaryotic translation initiation factor 2 subunit  $\alpha$  (eIF2 $\alpha$ ).<sup>1</sup> It is a more potent derivative of salubrinal (Item No. 14735) that increases eIF2 $\alpha$  phosphorylation in mouse embryonic fibroblasts (MEFs) when used at a concentration of 10  $\mu$ M.<sup>2</sup> It impairs late-phase long-term potentiation (LTP) in hippocampal slices from wild-type, but not ATF4 knockout, mice. When infused into the dorsal hippocampus post-training, Sal-003 impairs contextual fear memory in rats.

## References

1. Robert, F., Kapp, L.D., Khan, S.N., *et al.* Initiation of protein synthesis by hepatitis C virus is refractory to reduced eIF2 • GTP • Met-tRNA<sub>i</sub><sup>Met</sup> ternary complex availability. *Mol. Biol. Cell* **17(11)**, 4632-4644 (2006).
2. Costa-Mattioli, M., Gobert, D., Stern, E., *et al.* eIF2 $\alpha$  phosphorylation bidirectionally regulates the switch from short- to long-term synaptic plasticity and memory. *Cell* **129(1)**, 195-206 (2007).

### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

### WARRANTY AND LIMITATION OF REMEDY

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## CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM