

## Certificate of Analysis

**Product Name:** Sal 003

**Catalog No.:** 3657

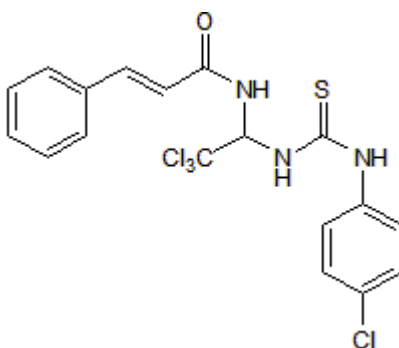
**Batch No.:** 1

CAS Number: 1164470-53-4

IUPAC Name: 3-Phenyl-N-(2,2,2-trichloro-1-(((4-chlorophenyl)amino)carbonothioyl)amino)ethyl)acrylamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>18</sub> H <sub>15</sub> Cl <sub>4</sub> N <sub>3</sub> OS.½H <sub>2</sub> O
<b>Batch Molecular Weight:</b>	472.22
<b>Physical Appearance:</b>	Off-white solid
<b>Solubility:</b>	DMSO to 100 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>TLC:</b>	R <sub>f</sub> = 0.5 (Ethyl acetate:Petroleum ether [1:1])
<b>HPLC:</b>	Shows 99.6% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	45.78	3.42	8.9
Found	45.47	3.33	8.68

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Cell-permeable inhibitor of cellular phosphatase complexes that dephosphorylate eukaryotic translation initiation factor 2 subunit  $\alpha$  (eIF2 $\alpha$ ). Analog of salubrinal (Cat. No. 2347) with improved aqueous solubility. Shown to prevent the induction of hippocampal long-term potentiation (LTP) and memory formation (LTM) in mice.

**Physical and Chemical Properties:**

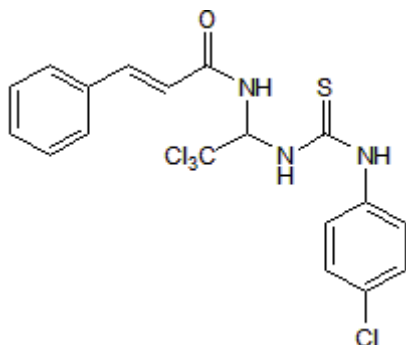
Batch Molecular Formula: C<sub>18</sub>H<sub>15</sub>Cl<sub>4</sub>N<sub>3</sub>OS.½H<sub>2</sub>O

Batch Molecular Weight: 472.22

Physical Appearance: Off-white solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Baltiz et al (2007)** The eIF2 $\alpha$  kinases PERK and PKR activate glucocorticoid synthase kinase 3 to promote the proteasomal degradation of p53. *J.Biol.Chem.* **282** 31675. PMID: 17785458.

**Costa-Mattioli et al (2007)** eIF2 $\alpha$  phosphorylation bidirectionally regulates the switch from short- to long-term synaptic plasticity and memory. *Cell* **129** 195. PMID: 17418795.

**Raven et al (2008)** PKR and PKR-like endoplasmic reticulum kinase induce the protease-dependent degradation of cyclin D1 via a mechanism requiring eukaryotic initiation factor 2 $\alpha$  phosphorylation. *J.Biol.Chem.* **283** 3097. PMID: 18063576.

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