

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** ST 034307

**Catalog No.:** 6271

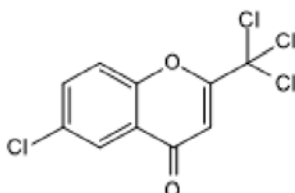
**Batch No.:** 1

CAS Number: 133406-29-8

IUPAC Name: 6-Chloro-2-(trichloromethyl)-4H-1-benzopyran-4-one

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>4</sub>Cl<sub>4</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 297.95  
**Physical Appearance:** Beige solid  
**Solubility:** DMSO to 100 mM  
 ethanol to 20 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.6% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	40.31	1.35	
Found	40.43	1.23	

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

**bio-techne.com**  
 info@bio-techne.com  
 techsupport@bio-techne.com

**North America**  
 Tel: (800) 343 7475

**China**  
 info.cn@bio-techne.com  
 Tel: +86 (21) 52380373

**Europe Middle East Africa**  
 Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
 Tel:+1 612 379 2956

**Product Name:** ST 034307

**Catalog No.:** 6271

**1**

CAS Number: 133406-29-8

IUPAC Name: 6-Chloro-2-(trichloromethyl)-4H-1-benzopyran-4-one

**Description:**

ST 034307 is an adenylyl cyclase 1 (AC1) inhibitor ( $IC_{50} = 2.3 \mu M$ ). Exhibits some selectivity for AC1 over other AC isoforms, with no significant activity against AC8. Inhibits  $Ca^{2+}$ /calmodulin-stimulated cAMP accumulation in hippocampal homogenates. Enhances  $\mu$  opioid receptor (MOR)-mediated inhibition of AC1 in cellular assays and inhibits development and maintenance of MOR-mediated sensitization of AC1. ST 034307 relieves pain without causing tolerance in mouse models of pain. Active in vivo. Analgesic.

**Physical and Chemical Properties:**

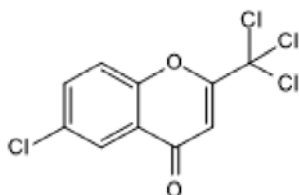
Batch Molecular Formula:  $C_{10}H_4Cl_4O_2$

Batch Molecular Weight: 297.95

Physical Appearance: Beige solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**References:**

**Brust et al (2017)** Identification of a selective small-molecule inhibitor of type 1 adenylyl cyclase activity with analgesic properties. *Sci.Signal.* **10** eaah5381. PMID: 28223412.

**Storage:** Store at  $-20^{\circ}C$

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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  $45-60^{\circ}C$  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  $-20^{\circ}C$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956