

## Certificate of Analysis

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

**Product Name:** (±)-Clopidogrel hydrochloride

**Catalog No.:** 2490

**Batch No.:** 2

CAS Number: 130209-90-4

IUPAC Name: Methyl 2-(4,5,6,7-tetrahydrothieno[3,2-c]pyridin-5-yl)-2-(2-chlorophenyl)acetate hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>16</sub>NO<sub>2</sub>SCI.HCl

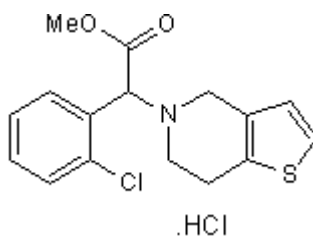
**Batch Molecular Weight:** 358.28

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM  
ethanol to 100 mM

**Storage:** Desiccate at +4°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.73 (Diethyl ether:Petroleum ether [1:1])

**HPLC:** Shows 99.8% purity

**Chiral HPLC:** Shows 0% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical	53.64	4.78	3.91
Found	53.64	4.75	3.88

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

**Product Name:** (±)-Clopidogrel hydrochloride

**Catalog No.:** 2490

**Batch No.:** 2

CAS Number: 130209-90-4

IUPAC Name: Methyl 2-(4,5,6,7-tetrahydrothieno[3,2-c]pyridin-5-yl)-2-(2-chlorophenyl)acetate hydrochloride

**Description:**

Selective, high affinity P2Y<sub>12</sub> receptor antagonist (pK<sub>i</sub> = 6.9 for hP2Y<sub>12</sub> receptor). Inhibits ADP-induced platelet aggregation; potent antithrombotic agent. Requires bioactivation, unlike PSB 0739 (Cat. No. 3983). (+)-Clopidogrel hydrogen sulfate (Cat. No. 1820) also available.

**Physical and Chemical Properties:**

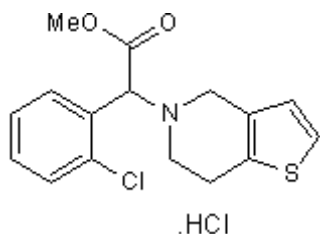
Batch Molecular Formula: C<sub>16</sub>H<sub>16</sub>NO<sub>2</sub>SCl.HCl

Batch Molecular Weight: 358.28

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol 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:**

**Savi et al** (2001) P2Y<sub>12</sub>, a new platelet ADP receptor, target of clopidogrel. *Biochem.Biophys.Res.Comm.* **283** 379.

**Savi and Herbert** (2005) Clopidogrel and ticlopidine: P2Y<sub>12</sub> adenosine diphosphate-receptor antagonists for the prevention of atherothrombosis. *Semin.Thromb.Haemostas.* **31** 174.

**Kugelgen** (2006) Pharmacological profiles of cloned mammalian P2Y-receptor subtypes. *Pharmacol.Ther.* **110** 415. PMID: 16257449.

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