**Product Name:** L-Ascorbic acid  
**Catalog No.:** 4055  
**Batch No.:** 1  
**CAS Number:** 50-81-7  
**EC Number:** 200-066-2  
**IUPAC Name:** 3-Oxo-L-gulofuranolactone

### 1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( C_6H_8O_6 \)
- **Batch Molecular Weight:** 176.12
- **Physical Appearance:** White solid
- **Solubility:**  
  - Water to 500 mM  
  - DMSO to 100 mM
- **Storage:** Store at RT
- **Batch Molecular Structure:**

![Batch Molecular Structure](image)

### 2. ANALYTICAL DATA

- **HPLC:** Shows 100% purity
- **\(^1\)H NMR:** Consistent with structure
- **Microanalysis:**
  
<table>
<thead>
<tr>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>40.92</td>
<td>4.58</td>
</tr>
<tr>
<td>Found</td>
<td>40.94</td>
<td>4.63</td>
</tr>
</tbody>
</table>

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

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Description:
Inhibitor of Ca_{3.2} channels (IC_{50} = 6.5 \mu M); displays no effect on Ca_{3.1} or Ca_{3.3} channels heterologously expressed in HEK 293 cells. Also enhances the generation of induced pluripotent stem cells (iPSCs) from mouse and human somatic cells by increasing reprogramming efficiency. Commonly used antifade reagent in live cell microscopy. Naturally occurring antioxidant.

Physical and Chemical Properties:
- Batch Molecular Formula: C_6H_7O_6
- Batch Molecular Weight: 176.12
- Physical Appearance: White solid
- Minimum Purity: \geq 99%

Storage: Store at RT

Solubility & Usage Info:
- water to 500 mM
- 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: