Print Date: Jan 28th 2018

Certificate of Analysis

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Product Name: L-Dehydroascorbic acid **Catalog No.: 5734** **Batch No.: 1**

CAS Number: 490-83-5

IUPAC Name: L-*threo*-2,3-Hexodiulosonic acid γ-lactone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_6H_6O_6$

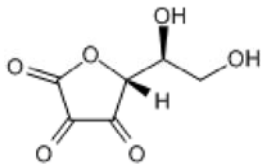
Batch Molecular Weight: 174.11

Physical Appearance: White solid

Solubility: water to 10 mM with gentle warming
DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.39	3.47	
Found	41.63	3.67	

NaOH titration: 97.5%

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Product Information

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CAS Number: 490-83-5

IUPAC Name: L-*threo*-2,3-Hexodiulosonic acid γ-lactone

Description:

Oxidized form of L-Ascorbic acid (Cat. No. 4055). Transported into cells through GLUT1. Selectively induces cell death in KRAS and BRAF mutant cells in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: $C_6H_6O_6$

Batch Molecular Weight: 174.11

Physical Appearance: White solid

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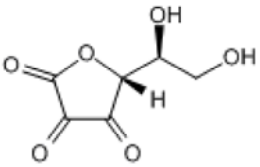

Storage: Store at -20°C

Solubility & Usage Info:

water to 10 mM with gentle warming
DMSO to 100 mM

This compound is a dimer when it is a solid and will become a monomer when it is in solution.

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:

Kaiser (2015) Vitamin C could target some common cancers. Science ***6*** 6261. PMID: 26542550.

Yun *et al* (2015) Vitamin C selectively kills *KRAS* and *BRAF* mutant colorectal cancer cells by targeting GAPDH. Science ***11*** 6266. PMID: 26541605.