

# **Certificate of Analysis**

Print Date: Sep 9th 2022

Batch No.: 1

www.tocris.com

Catalog No.: 6122

Product Name: (RS)-2-Hydroxyglutaric acid disodium salt

CAS Number: 40951-21-1

IUPAC Name: (RS)-2-Hydroxypentanedioic acid disodium salt

# 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>5</sub>H<sub>6</sub>Na<sub>2</sub>O<sub>5</sub>. <sup>1</sup>/<sub>4</sub>H<sub>2</sub>O

**Batch Molecular Weight:** 196.58 **Physical Appearance:** White solid

Solubility: water to 100 mM Storage: Store at -20°C

**Batch Molecular Structure:** 

#### 2. ANALYTICAL DATA

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

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 30.55 3.33 Found 30.5 3.06



# **Product Information**

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1

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CAS Number: 40951-21-1

IUPAC Name: (RS)-2-Hydroxypentanedioic acid disodium salt

### **Description:**

(RS)-2-Hydroxyglutaric acid disodium salt is an oncometabolite with R- and S- enantiomers overproduced in the neurometabolic disease 2-hydroxyglutaric aciduria (2-HGA).

## **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>5</sub>H<sub>6</sub>Na<sub>2</sub>O<sub>5</sub>.1/4H<sub>2</sub>O

Batch Molecular Weight: 196.58 Physical Appearance: White solid

#### **Batch Molecular Structure:**

Storage: Store at -20°C

#### Solubility & Usage Info:

water 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).

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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:

Du X. and Hu H. (2021) The roles of 2-Hydroxyglutarate. Front.Cell Dev.Biol. 9 651317. PMID: 33842477.