Product Name: (R)-2-Hydroxyglutaric acid disodium salt
Catalog No.: 6124
Batch No.: 4

CAS Number: 103404-90-6
IUPAC Name: (R)-2-Hydroxypentanedioic acid disodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

   Batch Molecular Formula: $C_5H_6Na_2O_5$.
   Batch Molecular Weight: 192.08
   Physical Appearance: Off-white solid
   Solubility: water to 100 mM
   Storage: Store at -20°C

   Batch Molecular Structure:

   ![Molecular Structure Image]

2. ANALYTICAL DATA

   $^1$H NMR: Consistent with structure
   Mass Spectrum: Consistent with structure
   Optical Rotation: $[\alpha]_D = +9.2$ (Concentration = 1, Solvent = Water)
   Microanalysis:

<table>
<thead>
<tr>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>31.27</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
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CAS Number: 103404-90-6
IUPAC Name: (R)-2-Hydroxypentanedioic acid disodium salt

Description:
(R)-2-Hydroxyglutaric acid disodium salt is an oncometabolite produced by mutant isocitrate dehydrogenase 1 (IDH1) and IDH2. Inhibits KDM4A in murine embryonic fibroblasts resulting in activation of mTOR. Also activates NF-κB in bone marrow stromal cells and inhibits FTO (mRNA N6-methyladenine demethylase).

Physical and Chemical Properties:
Batch Molecular Formula: C_6H_8Na_2O_5
Batch Molecular Weight: 192.08
Physical Appearance: Off-white solid

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).

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: