Traumatic Acid
Item No. 88820

CAS Registry No.: 6402-36-4
Formal Name: 2E-dodecenedioic acid
Synonym: trans-2-Dodecenedioic acid
MF: C12H20O4
FW: 228.3
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Traumatic acid is supplied as a crystalline solid. Stock solutions of traumatic acid can be prepared by dissolving the crystalline compound in the solvent of choice. Solvents such as DMSO, dimethyl formamide, or ethanol purged with an inert gas or nitrogen can be used. The solubility of traumatic acid in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of traumatic acid is needed, it can be prepared by dissolving the crystalline compound in aqueous buffers. Traumatic acid is soluble in PBS (pH 7.2) at a concentration of approximately 900 µg/ml. The solubility of traumatic acid is increased in basic buffers. The solubility of traumatic acid in PBS (pH 9.0) is approximately 1.2 mg/ml. Store aqueous solutions of traumatic acid on ice and use within 12 hours of preparation. Although the aqueous solutions of traumatic acid may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

Traumatic acid is a product of the hydroperoxide lyase pathway in plants. Traumatic acid is a wound-healing agent that stimulates cell division near a wound site to form a protective callus.¹

Reference