Product Information

Juglone

Item No. 16216

CAS Registry No.: 481-39-0
Formal Name: 5-hydroxy-1,4-naphthalenedione
Synonyms: 5-Hydroxy-1,4-naphthoquinone, NSC 34266, NSC 153189, NSC 622948
MF: C10H6O3
FW: 174.2
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax: 209, 249, 424 nm

Laboratory Procedures

For long term storage, we suggest that juglone be stored as supplied at -20°C. It should be stable for at least two years. Juglone is supplied as a crystalline solid. A stock solution may be made by dissolving the juglone in the solvent of choice. Juglone is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of juglone in these solvents is approximately 10 mg/ml.

Juglone is a natural naphthoquinone found in the black walnut (J. nigra) and other plants in the Juglandaceae family. It has allelopathic actions, suppressing growth, photosynthesis, and respiration in plants and other organisms, although some bacteria can metabolize juglone.1,2 Juglone also irreversibly inhibits peptidyl-prolyl cis/trans isomerases of the parvulin family, including human Pin1, yeast Ess1/Ptf1, and E. coli parvulin (K_i = 55.9 nM).3 Juglone also blocks transcription by RNA polymerases I, II, and III (IC_50s = 2-7 µM) and attenuates kidney fibrosis in rats treated with unilateral ureteral obstruction, both through Pin1-independent mechanisms.4,5

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16216

WARNING: This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

SafETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent with your material.

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