Hypericin
Item No. 11334

CAS Registry No.: 548-04-9
Formal Name: 1,3,4,6,8,13-hexahydroxy-10,11-dimethyl-phenanthro[1,10,9,8-opqra]perylene-7,14-dione
Synonym: NSC 407313
MF: C_{30}H_{16}O_8
FW: 504.5
Purity: ≥95%
UV/Vis.: λ_{max}: 217, 286, 328, 385, 476, 511, 548, 591 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Hypericin is supplied as a crystalline solid. A stock solution may be made by dissolving the hypericin in the solvent of choice. Hypericin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of hypericin in these solvents is approximately 30 mg/ml. Hypericin is also slightly soluble in ethanol.

Hypericin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hypericin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Hypericin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

An anthroquinone derivative that is naturally found in the flower of *H. perforatum* (St. John’s wort) and has antidepressant, antiviral, and anti-cancer activities.\(^1,2\) Hypericin inhibits neuronal uptake of serotonin, norepinephrine, dopamine, GABA and L-glutamate, contributing to its antidepressant effects.\(^3\) It exerts broad spectrum phototoxic affects (IC_{50} = 140-1,570 nM) through induction of apoptotic signaling and formation of reactive oxygen species (ROS) in cancer cells.\(^4\) Hypericin also has in vitro activity, which can be enhanced with photo-activation, against a variety of viruses including HIV, influenza virus, hepatitis C, murine cytomegalovirus, and herpes viruses.\(^5\)

References