

**Product Name** : Methyl 3-O-methylgallate

**Synonyms** : M3OMG

**Cat No.** : M26294

**CAS Number** : 3934-86-9

**Molecular Formula** : C<sub>9</sub>H<sub>10</sub>O<sub>5</sub>

**Formula Weight** : 198.2

**Chemical Name** : —

**Description**

Methyl 3-O-methylgallate is a rare natural product that showed promising antioxidant activities. (In Vitro): Methyl 3-O-methylgallate showed antioxidant activity without prooxidant effect in neuronal SH-SY5Y cells. (In Vivo): Animals were treated with either Methyl 3-O-methylgallate (10 and 20 mg/kg i.p.), vitamin C (10 mg/kg i.p.) as the standard antioxidant or the vehicle (5 % dimethyl sulfoxide; 1 ml/kg) for 1 week. Oxidative stress was induced in the brain by adding 600 ppm NaF in the drinking water for 7 days. At the end of the treatment period, the levels of thiobarbituric acid reactive substances (TBARS), reduced glutathione and the activities of antioxidant enzymes (superoxide dismutase and catalase) were evaluated in brain homogenates. Methyl 3-O-methylgallate mitigated the NaF-induced oxidative stress through normalization of the level of TBARS, reduced levels of glutathione and by the restoration of the diminished antioxidant enzyme activities.

**Pathway** : Others

**Target** : Other Targets

**Receptor** : chitin synthesis

**Solubility** : —

**SMILES** : COC(=O)c1cc(O)c(O)c(OC)c1

**Storage** : (-20°C)

**Stability** : ≥ 2 years

**Reference** :

1. Rouabhi R, Berrebbah H, Djebbar MR. Evaluation of toxicity of two pesticides: flucycloxyuron and diflubenzuron on a cellular model, *Paramecium* sp. *Commun Agric Appl Biol Sci*. 2006; 71(2 Pt A):83-90.