Isatin

**Cat. No.:** HY-Y0265  
**CAS No.:** 91-56-5  
**Molecular Formula:** C₈H₅NO₂  
**Molecular Weight:** 147.13  
**Target:** Monoamine Oxidase  
**Pathway:** Neuronal Signaling

**Storage:**  
- Powder  
  - -20°C  3 years  
  - 4°C  2 years  
- In solvent  
  - -80°C  6 months  
  - -20°C  1 month

**BIOLOGICAL ACTIVITY**

**Description**  
Isatin (Indoline-2,3-dione) is a potent inhibitor of monoamine oxidase (MAO) with an IC₅₀ of 3 μM. Also binds to central benzodiazepine receptors (IC₅₀ against clonazepam, 123 μM)[1]. Also acts as an antagonist of both atrial natriuretic peptide stimulated and nitric oxide-stimulated guanylate cyclase activity[2]. Shows effect on the serotonergic system[3].

**IC₅₀ & Target**  
IC₅₀: 3 μM (MAO B)[1]

**In Vitro**  
In dopaminergic SH-SYSY cells isatin (1-400 μM) induces cell death in dose- and time dependent manner. This death occurred as a continuum of survival, apoptosis and necrosis[2].

**In Vivo**  
A single dose of isatin (80 mg/kg) has a rapid effect on the serotonergic system in the hypothalamus. Isatin significantly increases 5-HT concentrations in the hypothalamus and cortex but did not significantly alter 5-HIAA concentrations[3].

**REFERENCES**


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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898                                    Fax: 609-228-5909                                    E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA