

Product Data Sheet

Product Name: Isoprinosine

Cat. No.: GC18042

Chemical Properties

Cas. No. 36703-88-5

Chemical Name 1-(dimethylamino)-2-propanol 4-(acetylamino)benzoate inosine

SMILES OC[C@H]1[C@H](O)[C@H](O)[C@H](N2C=NC3=C2NC=NC3=O)O1.OC(C4=CC=CC(=C4)C(=O)N(C)C)C(=O)O.CC(O)CN(C)C.OC(C5=CC=CC(=C5)C(=O)N(C)C)C(=O)O.CC(O)CN(C)C.OC(C6=CC=CC(=C6)C(=O)N(C)C)C(=O)O.CC(O)CN(C)C

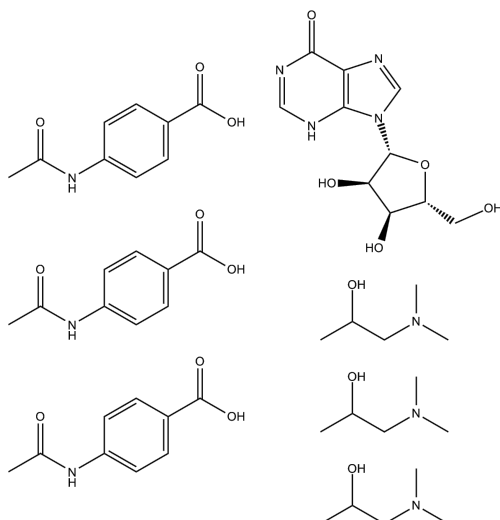
Formula $C_{10}H_{12}N_4O_5 \cdot 3C_9H_9NO_3 \cdot 3C_5H_1$ M.Wt 1115.2
3NO

Solubility $\leq 14\text{mg/ml}$ in DMSO; 2mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

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

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Isoprinosine is a complex of acetaminobenzoic acid, dimethylaminoisopropanol, and inosine in a 3:3:1 ratio with immunomodulatory effects.

Immunotherapy is the treatment of disease by inducing, enhancing, or suppressing an immune response. Immunomodulatory regimens usually have fewer side effects than existing drugs, such as less potential for creating resistance when treating microbial disease.

In vitro: Previous study found that increasing concentrations of Isoprinosine (50-400 µg/mL) could produce progressively growing inhibitory effect on HHV-1 replication. The combination of 1000 IU/mL IFN-α and Isoprinosine could result in enhanced anti-HHV activity [1].

In vivo: Previous study demonstrated the positive effect of Isoprinosine treatment on persistent infection of Balb/c mice with murine gammaherpesvirus 68. Increased number of leukocytes, increased percentage of neutrophils, elevated levels of virus-neutralizing antibodies, reduced number of atypical lymphocytes and reduced virus titers were detected in the examined organs after a 14-day treatment. The positive effect of Isoprinosine therapy vanished after 120-150 days [2].

Clinical trial: A previous clinical study evaluating the safety of Isoprinosine for the treatment of patients with acute respiratory viral infections confirmed the efficacy of Isoprinosine versus placebo in healthy non-obese subjects less than 50 years of age with clinically diagnosed influenza-like illnesses [3].

References:

- [1] Majewska A, Lasek W, Janyst M, Mynarczyk G. IN VITRO INHIBITION OF HHV-1 REPLICATION BY INOSINE PRANOBEX AND INTERFERON-α. Acta Pol Pharm. 2016 May-Jun;73(3):637-44.
- [2] Janíková O, Anicová L, Briestenská K, Mistríková J. The effect of Isoprinosine treatment on persistent infection of Balb/c mice infected with murine gammaherpesvirus 68. Acta Virol. 2017;61(1):32-38. doi: 10.4149/av_2017_01_32.
- [3] Beran J, alapová E, pajdel M; Isoprinosine Study (EWO ISO-2014/1) Team. Inosine pranobex is safe and effective for the treatment of subjects with confirmed acute respiratory viral infections: analysis and subgroup analysis from a Phase 4, randomised, placebo-controlled, double-blind study. BMC Infect Dis. 2016 Nov 7;16(1):648.

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