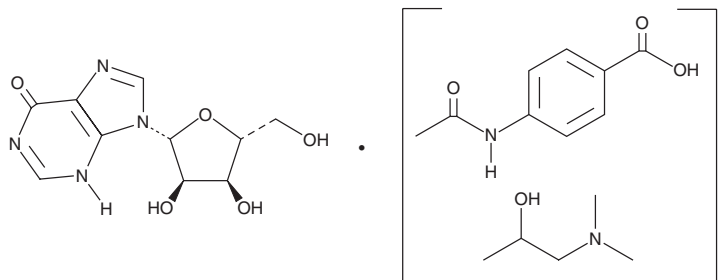


# PRODUCT INFORMATION



## Isoprinosine Item No. 16492

**CAS Registry No.:** 36703-88-5  
**Formal Name:** 1-(dimethylamino)-2-propanol  
4-(acetamino)benzoate inosine  
**Synonyms:** Inosine pranobex, NP 113, NPT 10381  
**MF:**  $C_{10}H_{12}N_4O_5 \cdot 3C_9H_9NO_3 \cdot 3C_5H_{13}NO$   
**FW:** 1,115.2  
**Purity:**  $\geq 98\%$   
**UV/Vis.:**  $\lambda_{max}$ : 259 nm  
**Supplied as:** A crystalline solid  
**Storage:**  $-20^\circ\text{C}$   
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

Isoprinosine is supplied as a crystalline solid. A stock solution may be made by dissolving the isoprinosine in the solvent of choice. Isoprinosine is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of isoprinosine in these solvents is approximately 14 and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of isoprinosine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of isoprinosine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Isoprinosine is a complex of acetaminobenzoic acid, dimethylaminoisopropanol, and inosine in a 3:3:1 ratio. It has a number of immunomodulatory effects, including inducing T-lymphocyte differentiation, augmenting macrophage and NK cell functions, and stimulating IL-2 production.<sup>1-3</sup> Through these effects and others, isoprinosine shows antiviral activity and has applications against subacute sclerosing panencephalitis.<sup>3,4</sup> It also restores depressed immune responses in cancer patients after irradiation and reduces the incidence of infection in leukemia patients undergoing chemotherapy.<sup>3</sup>

### References

1. Fischbach, M. and Talal, N. Ability of isoprinosine to restore interleukin-2 production and T cell proliferation in autoimmune mice. *Clin. Exp. Immunol.* **61**, 242-247 (1985).
2. Tsang, K.Y., Fudenberg, H.H., Galbraith, G.M.P., et al. Partial restoration of impaired interleukin-2 production and tac antigen (putative interleukin-2 receptor) expression in patients with acquired immune deficiency syndrome by isoprinosine treatment *in vitro*. *J. Clin. Invest.* **75**, 1538-1544 (2015).
3. Caspritz, G. and Hadden, J. The immunopharmacology of immunotoxicology, and immunorestitution. *Toxicol. Pathol.* **15**(3), 320-332 (1987).
4. Garg, R.K. Subacute sclerosing panencephalitis. *Postgrad. Med. J.* **78**, 63-70 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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