PRODUCT INFORMATION

Olsalazine (sodium salt)
Item No. 23661

CAS Registry No.: 6054-98-4
Formal Name: 3,3’-(1,2-diazenediyl)bis[6-hydroxybenzoic acid, disodium salt
Synonym: C.I. 14130
MF: C14H8N2O6 • 2Na
FW: 346.2
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \) 219, 253, 362 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

Olsalazine (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the olsalazine (sodium salt) in the solvent of choice. Olsalazine (sodium salt) is slightly soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas.

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 olsalazine (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of olsalazine (sodium salt) in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Olsalazine is an orally bioavailable prodrug form of the anti-inflammatory agent 5-aminosalicylic acid (5-ASA; Item No. 70265) that is cleaved by bacterial azo reductases in the gut to generate active 5-ASA.\(^1\) In vitro, olsalazine increases ion transport in isolated rabbit distal ileum when applied to the luminal side (\( \text{ED}_{50} = 0.3 \text{ mM} \)) and stimulates fluid transport in rat jejunum when used at a concentration of 5 mM.\(^2,3\) Olsalazine (150 mg/kg for 8 days) improves stool consistency and decreases occult and gross bleeding as well as myeloperoxidase (MPO) activity and leukotriene \( \text{B}_4 \) (\( \text{LTB}_4 \); Item No. 20110) levels in colon tissue in a mouse model of acute colitis induced by dextran sulfate (Item No. 23250).\(^5\) Olsalazine also inhibits bovine xanthine oxidase \( \text{in vitro} \) (\( \text{IC}_{50} = 3.4 \text{ mg/L} \)) and lowers serum uric acid levels in a mouse model of hyperuricemia induced by oxonic acid (Item No. 22586) when administered at a dose of 20 mg/kg.\(^5\) Formulations containing olsalazine have been used in the treatment of inflammatory bowel disease (IBD) and ulcerative colitis.

References


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