Salsalate
Item No. 11911

CAS Registry No.: 552-94-3
Formal Name: 2-hydroxy-2-carboxyphenyl ester-benzoic acid
Synonyms: Disalcid, Nobacid, NSC 49171, Salflex, Salina, Sasapirin
MF: C_{14}H_{10}O_{5}
FW: 258.2
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_{max} 207, 234, 308 nm

Laboratory Procedures

For long term storage, we suggest that salsalate be stored as supplied at -20°C. It should be stable for at least two years. Salsalate is supplied as a crystalline solid. A stock solution may be made by dissolving the salsalate in the solvent of choice. Salsalate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of salsalate in these solvents is approximately 3, 5, and 14 mg/ml, respectively. Salsalate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, salsalate should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Salsalate has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Nonacetylated (e.g., sodium salicylate) and acetylated (aspirin) forms of salicylate are widely used to target inflammation in the treatment of insulin resistance, type 2 diabetes, or rheumatic pain. Salsalate is a dimeric prodrug comprising two esterified salicylate moieties. It is advantageous over sodium salicylate because it is insoluble at the acid pH of the stomach and passes suspended but undissolved into the small intestine, sparing the gastric mucosa direct contact. Proof-of-principle clinical studies demonstrate that 3-4.5 g/d salsalate can reduce blood glucose, triglyceride, free fatty acid and C-reactive protein concentrations, improve glucose utilization, and increase circulating insulin and adiponectin concentrations in obese adults at risk for the development of type 2 diabetes as well as for patients with type 2 diabetes.2-4

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/11911

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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