



LKT Laboratories, Inc.

## Salsalate

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### Product Information

Product ID S0244

CAS No. 552-94-3

Chemical Name 2-(2-hydroxybenzoyl)oxybenzoic acid

Synonym

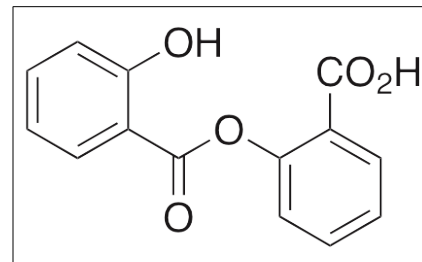
Formula  $C_{14}H_{10}O_5$

Formula Wt. 258.23

Melting Point 147° C

Purity ≥95%

Solubility



**Bulk quantities available upon request**

Product ID	Size
S0244	25 g
S0244	100 g

Store Temp 4° C

Ship Temp Ambient

**Description** Salsalate is a prodrug of salicylic acid composed of two salicylate molecules attached by an ester bond. Salsalate acts as a non-steroidal anti-inflammatory drug (NSAID), producing weak, reversible inhibition of COX-1 and COX-2. Salsalate primarily acts as an analgesic, but also exhibits anti-diabetic activity as well. Salsalate decreases blood glucose levels and increases adiponectin levels. This compound also inhibits expression of insulin resistance-inducing Selenoprotein P, potentially mediated by activation of AMPK and phosphorylation of Foxo1α. Salsalate acts as an anti-inflammatory in the treatment of rheumatoid arthritis, as it inhibits IκB kinase and activation of NF-κB. Additionally, salsalate improves glucose tolerance and downregulates 11β-hydroxysteroid dehydrogenase 1 (11β-HSD1) activity in visceral adipose in clinical and in vivo settings.

**References** Jung TW, Choi HY, Lee SY, et al. Salsalate and Adiponectin Improve Palmitate-Induced Insulin Resistance via Inhibition of Selenoprotein P through the AMPK-FOXO1α Pathway. PLoS One. 2013 Jun 18;8(6):e66529. PMID: 23825542.

Nixon M, Wake DJ, Livingstone DE, et al. Salicylate downregulates 11β-HSD1 expression in adipose tissue in obese mice and in humans, mediating insulin sensitization. Diabetes. 2012 Apr;61(4):790-6. PMID: 22357964.

McCarty MF. Salsalate may have broad utility in the prevention and treatment of vascular disorders and the metabolic syndrome. Med Hypotheses. 2010 Sep;75(3):276-81. PMID: 20080359.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.