



LKT Laboratories, Inc.

Rhein

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Product Information

Product ID R2917
CAS No. 478-43-3
Chemical Name 9,10-Dihydro-4,5-dihydroxy-9,10-dioxo-2-anthracenecarboxylic acid

Synonym Rhubarb yellow, Monorhein, Rheic acid, Cassic acid, Parietic acid

Formula C₁₅H₈O₆

Formula Wt. 284.22

Melting Point 321-322 °C

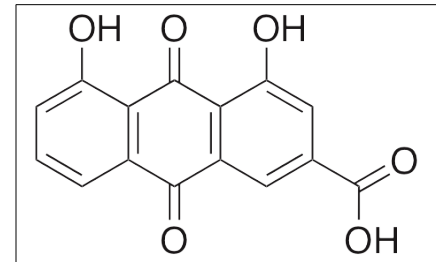
Purity ≥88%

Solubility Practically insoluble in water. Soluble in alkalies and pyridine.

Store Temp 4 °C

Ship Temp Ambient

Description Rhein is an active metabolite of diacerein and an anthraquinone found in *Rheus* (rhubarb). Rhein exhibits pro-inflammatory, anti-inflammatory, anti-diabetic, anticancer, antioxidative, anti-atherosclerotic, and anti-angiogenic activities. Rhein inhibits LPS-induced activation of NF-κB and production of IL-6 and IL-18 by inhibiting degradation of IκB kinase. Rhein also inhibits hyperglycemia-induced apoptosis in β cells in animal models of diabetes. In gastric cancer cells, rhein increases the Bax/Bcl-2 ratio and levels of cytochrome c, inducing mitochondria-mediated apoptosis and inhibiting cell proliferation. This compound also inhibits vessel plexus formation and endothelial cell migration. Additionally, rhein decrease H₂O₂-induced increases in malondialdehyde and lactate dehydrogenase levels and decreases in superoxide dismutase and glutathione activity, inhibiting apoptosis and oxidative injury.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
R2917	100 mg	\$104.90
R2917	500 mg	\$419.50
R2917	1 g	\$779.10

References Gao Y, Chen X, Fang L, et al. Rhein exerts pro- and anti-inflammatory actions by targeting IKKβ inhibition in LPS-activated macrophages. *Free Radic Biol Med.* 2014 Jul;72:104-12. PMID: 24721152.

Liu J, Chen Z, Zhang Y, et al. Rhein protects pancreatic β-cells from dynamin-related protein-1-mediated mitochondrial fission and cell apoptosis under hyperglycemia. *Diabetes.* 2013 Nov;62(11):3927-35. PMID: 23919963.

Li Y, Xu Y, Lei B, et al. Rhein induces apoptosis of human gastric cancer SGC-7901 cells via an intrinsic mitochondrial pathway. *Braz J Med Biol Res.* 2012 Nov;45(11):1052-9. PMID: 22850871.

Zhong XF, Huang GD, Luo T, et al. Protective effect of rhein against oxidative stress-related endothelial cell injury. *Mol Med Rep.* 2012 May;5(5):1261-6. PMID: 22344690.

He ZH, Zhou R, He MF, et al. Anti-angiogenic effect and mechanism of rhein from Rhizoma Rhei. *Phytomedicine.* 2011 Apr 15;18(6):470-8. PMID: 21112197.

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