



## Product Information

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

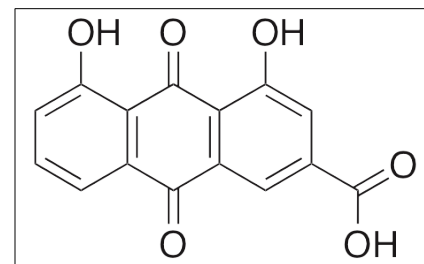
**Synonym** Rhubarb yellow, Monorhein, Rheic acid, Cassic acid, Parietic acid

**Formula** C<sub>15</sub>H<sub>8</sub>O<sub>6</sub>  
**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 H<sub>2</sub>O<sub>2</sub>-induced increases in malondialdehyde and lactate dehydrogenase levels and decreases in superoxide dismutase and glutathione activity, inhibiting apoptosis and oxidative injury. TEST!!!!!!



## 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.