



LKT Laboratories, Inc.

Esculin

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Product Information

Product ID E7310

CAS No. 531-75-9

Chemical Name 6-(β-D-Glucopyranosyloxy)-7-hydroxy-2H-1-benzopyran-2-one

Synonym Esculin hydrate, Esculose, Bicolorin, Enallachrome, Polychrome, Escosyl

Formula C₁₅H₁₆O₉ • H₂O

Formula Wt. 358.30

Melting Point 203-205°C

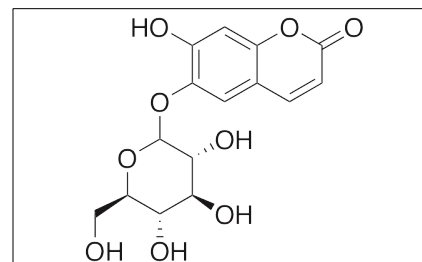
Purity ≥98%

Solubility Slightly soluble in water.
Soluble in methanol, DMSO
(60 mg/mL).

Store Temp Ambient

Ship Temp Ambient

Description Esculin is a coumarin glucoside found in *Aesculus*, *Daphne*, and *Bursaria*. Esculin exhibits anti-diabetic and antioxidative activities. Esculin is hydrolyzed by species of *Streptococcus*, *Enterococcus*, *Listeria*, and *Aerococcus* and is used in research models to identify these bacteria. In diabetic rats, esculin decreases blood glucose and glucose-6-phosphatase levels and increases glucose uptake, potentially through the activation of insulin receptors, Akt, and GSK3β. Additionally, esculin decreases lipid peroxidation and increases levels of glutathione, glutathione peroxidase, glutathione-S-transferase, superoxide dismutase, and catalase in the kidneys of animals treated with pro-oxidant aflatoxin B1. TEST!!!!!!



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
E7310	1 g	\$42.00
E7310	5 g	\$77.60
E7310	10 g	\$123.20

References Kang KS, Lee W, Jung Y, et al. Protective effect of esculin on streptozotocin-induced diabetic renal damage in mice. *J Agric Food Chem*. 2014 Mar 5;62(9):2069-76. PMID: 24484395.

Naaz F, Abdin MZ, Javed S. Protective effect of esculin against prooxidant aflatoxin B1-induced nephrotoxicity in mice. *Mycotoxin Res*. 2014 Feb;30(1):25-32. PMID: 24326591.

Raemy A, Meylan M, Casati S, et al. Phenotypic and genotypic identification of streptococci and related bacteria isolated from bovine intramammary infections. *Acta Vet Scand*. 2013 Jul 18;55:53. PMID: 23866930.

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