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## **Product Information**

Product ID \$3343

CAS No. 802918-57-6

Chemical Name (2R,3R)-2-[(2R,3R)-2,3-Dihydro-3-(4-hydroxy-3- methoxyphenyl)-2-

(hydroxymethyl)-1,4-benzodioxin- 6-yl]-2,3-dihydro-3,5,7-trihydroxy -4H-1-benzopyran- 4-one AND (2R,3R)-2-[(2S,3S)-2,3-Dihydro-3-(4-

Synonym Silibinin, Silybum substance E6, Silymarin I, Silybin A + B

Formula C<sub>25</sub>H<sub>22</sub>O<sub>10</sub> Formula Wt. 482.44

Melting Point 167-180°C(dec.)

Purity ≥97%

**Solubility** Soluble in acetone, ethyl acetate, methanol or ethanol.

Practically insoluble in water.

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## **Pricing and Availability**

Bulk quanitites available upon request

Product ID	Size	List Price
S3343	500 mg	\$41.00
S3343	1 g	\$50.90
S3343	5 q	\$153.10

Store Temp -20°C Ship Temp Ambient

**Description** Silybin is a phytoestrogen and flavonoid originally found in the seeds of the milk thistle plant (Silybum). Silybin exhibits antidiabetic, anti-inflammatory, anti-angiogenic, anticancer chemotherapeutic, and chemopreventive activities. In cellular and animal models of hepatocellular carcinoma, silybin increases expression of TRAIL and DR-5, activates caspase signaling, and decreases tumor growth and inflammatory cytokine release. In animal models of diabetes, silybin decrease Hb1Ac levels as well as serum triglycerides, cholesterol, and glucose in pancreatic B cells. Additionally, silybin inhibits IL-1B-induced proinflammatory cytokine expression and suppresses translocation of NF-κB in vitro. In animal models, this compound suppresses expression of HIF-1α and VEGF, decreases microvessel density, and delays UV-induced carcinogenesis. Stimulates vascular differentiation in mouse embryonic stem cells.

References Sato M, Murakami K, Uno M, et al. Structure-activity relationship for (+)-taxifolin isolated from silymarin as an inhibitor of amyloid-beta aggregation. Biosci Biotechnol Biochem. 2013;77(5):1100-1103. PMID: 23649236.

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Ali E, Sharifpanah F, et al. Silibinin from Silybum marianum Stimulates Embryonic Stem Cell Vascular Differentiation via the

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