*Natural Products*

ChemFaces

# alpha-Viniferin Datasheet

4th Edition (Revised in July, 2016)

## [ Product Information ]

**Name:** alpha-Viniferin

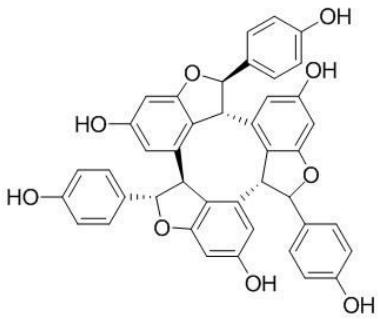
**Catalog No.:** CFN97068

**Cas No.:** 62218-13-7

**Purity:** > 98%

**M.F:** $C_{42}H_{30}O_9$

**M.W:** 678.7




**Physical Description:** Powder

**Synonyms:**(2R,2aR,7R,7aR,12S,12aS)-2,7,12-tris(4-hydroxyphenyl)-2,2a,7,7a,12,12a-hexahydrobis[1]benzofuro[3',4':4,5,6;3'',4'':7,8,9]cyclonona[1,2,3-cd][1]benzofuran-4,9,14-triol.

## [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

## [ Source ]

The herb of *Carex humilis Leyss.*

## [ Biological Activity or Inhibitors]

Alpha-viniferin isolated from Caragana chamlagu is a trimer of resveratrol, has anti-inflammatory, anti-oxidant, anti-arthritis, and anti-tumor activities;alpha-viniferin strongly inhibits 7 of the 9 CYP isoforms (except CYP2A6 and CYP2E1); alpha-viniferin strongly inhibits CYP2C19-mediated omeprazole 5-hydroxylation and CYP3A4-catalyzed midazolam 1-hydroxylation with IC 50 values of 0.93 and 1.2μM, respectively.[1]

(+)-Alpha-viniferin, a stilbene trimer from Caragana chamlague, inhibits acetylcholine -sterase (AChE) activity in a dose-dependent manner, the IC50 value is 2.0 microM.[2]

Alpha-viniferin at doses> 30 mg/kg(p. o.) or > 3 mg/kg (i. v.)shows significant anti-inflammatory activity through inhibition of cyclooxygenase-2 and inducible nitric oxide synthase on carrageenin-induced paw edema in mice; alpha-Viniferin showed an inhibitory effect with an IC(50) value of 4.9 microM on COX-2 activity, but a very weak inhibitory effect at 100 microM on COX-1 activity; alpha-Viniferin inhibited synthesis of iNOS transcript with an IC50 value of 4.7 microM.[3]

Alpha-viniferin is a prostaglandin H2 synthase inhibitor, the inhibitory potency of (+)-alpha-viniferin is about 3- to 4-fold stronger than that of resveratrol on cyclooxygenase activity of prostaglandin H2 synthase partially purified from sheep seminal vesicles.[4]

## [ Solvent ]

Chloroform, Dichloromethane, DMSO, Acetone, etc.

## [ HPLC Method ][5]

Mobile phase: Methanol-Acetonitrile- Buffer(pH=4.50)= 16.2 : 12.8 : 71.0 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 284nm.

## [ Storage ]

2-8℃, Protected from air and light, refrigerate or freeze.

## [ References ]


[1] Sim J, Jang H W, Min S, *et al. Food Chem. Toxicol. , 2014, 69:276-80.*

[2] Sung S H, Kang S Y, Lee K Y, *et al. Biol. Pharm. Bull., 2002, 25(1):125-7.*

[3] Chung E Y, Kim B H, Lee M K, *et al. Planta Med., 2003, 69(8):710-4.*

[4] Lee S H, Shin N H, Kang S H, *et al. Planta Med., 1998, 64(3):204-7.*

[5] Shu N, Zhou H, Hu C. *Biol. Pharm. Bull., 2006, 29(4):608-12*.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