

# **Raffinose Datasheet**

5<sup>th</sup> Edition (Revised in January, 2017)

#### [ Product Information ]

Name: Raffinose

Catalog No.: CFN90425

Cas No.: 17629-30-0

**Purity:** >=98%

**M.F:**  $C_{18}H_{32}O_{16}(_5H_2O)$ 

M.W: 594.51

Physical Description: Powder

**Synonyms:**beta-D-fructofuranosyl-6-O-alpha-D-galactopyranosyl-alpha-D-glucopyranosi de; D(+)-Raffinose pentahydrate.

HO

## [ Intended Use ]

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

### [Source]

The seeds of Glycine max.

#### [ Biological Activity or Inhibitors]

Raffinose and galactinol can effectively protect salicylate from attack by hydroxyl radicals in vitro, suggest the possibility that galactinol and raffinose scavenge hydroxyl radicals as a novel function to protect plant cells from oxidative damage caused by methylviologen treatment, salinity, or chilling.<sup>[1]</sup>

Raffinose family oligosaccharides can attenuate CCl<sub>4</sub>-induced oxidative stress and hepatopathy in mice.<sup>[2]</sup>

#### [Solvent]

Pyridine, Methanol, Ethanol, etc.

## [ HPLC Method ][3]

HPLC-ELSD:

Mobile phase: Acetonitrile -H2O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

Drift tube temperature: 90 ℃;

Flow rate of gas: 2.0 L/min.

### [Storage]

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

# [ References ]

[1] Nishizawa A, Yabuta Y, Shigeoka S. *Plant Physiol.*, 2008, 147(3):1251-63.

[2] Zhang R, Zhao Y, Sun Y, et al. J. Agric. Food Chem., 2013, 61(32):7786-93.

[3] Man-Sub Shin, Jae-Woo Park, Mi-Ran Cho, et al. Korean J. Food Sci. Technol., 2006, 38(6):725-9.

# [ Contact ]

Address:

S5-3 Building, No. 111, Dongfeng Rd.,

Wuhan Economic and Technological Development Zone,

Wuhan, Hubei 430056,

China

Email: info@chemfaces.com

**Tel:** +86-27-84237783 **Fax:** +86-27-84254680

Web: www.chemfaces.com

Tech Support: service@chemfaces.com