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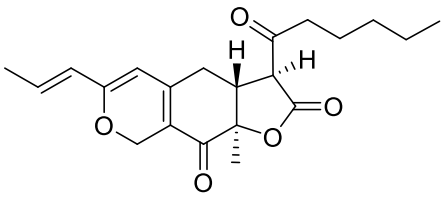
PRODUCT DATA SHEET

# Monascin

Code No.: **BIA-M1973**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms : Monascoflavin, Monascoflavine

## Specifications

| | | |
|---|---|---|
| CAS # | : | **21516-68-7** |
| Molecular Formula | : | **$C_{21}H_{26}O_5$** |
| Molecular Weight | : | **358.4** |
| Source | : | ***Penicillium* sp.** |
| Appearance | : | **Orange to tan solid** |
| Purity | : | **>95% by HPLC** |
| Long Term Storage | : | **-20°C** |
| Solubility | : | **Soluble in methanol or DMSO.** |

## Application Notes

Monascin (monascoflavin) is a yellow-orange pigment isolated from the fungus, Monascus purpureus used to produce red yeast rice. The structure of monascin was elucidated in 1960. Monascin has a broad bioprofile, including anti-inflammatory, antioxidant, antidiabetic, immunomodulatory, neuroprotective and antitumor effects. Monascin is a PPAR-γ agonist and attenuates proinflammatory mediators, including inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) expression as well as nitric oxide (NO) and prostaglandin E(2) (PGE2) formation caused by ovalbumin-induced inflammation in the human THP-1 monocyte cell line. Monascin inhibits the skin tumor-initiating effects of peroxynitrite or UVB and the tumor-promoting effects of 12-O-tetradecanoylphorbol-13-acetate in a mouse model.

## References


1. Monascoflavin. Ohashi M. et al. Bull Chem Soc Jpn. 1960, 33, 1630.
2. Monascus-fermented metabolite monascin suppresses inflammation via PPAR-γ regulation and JNK inactivation in THP-1 monocytes. Hsu W-H. et al. Food Chem Toxicol. 2012, 50, 1178.
3. Anti-tumor-initiating effects of monascin, an azaphilonoid pigment from the extract of Monascus pilosus fermented rice (red-mold rice). Akihasa T. et al. Chem Biodiversity 2005, 2, 1305.
4. Alleviation of metabolic syndrome by monascin and ankaflavin: the perspective of Monascus functional foods. Lin C-H. et al. Food Funct. 2017, 8, 2102.



For in vitro laboratory use only. Not for human or animal use.



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