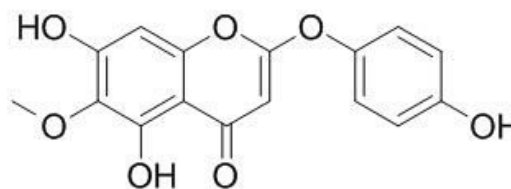


Capillarisin Datasheet

4th Edition (Revised in July, 2016)**[Product Information]****Name:** Capillarisin**Catalog No.:** CFN90317**Cas No.:** 56365-38-9**Purity:** > 98%**M.F:** C₁₆H₁₂O₇**M.W:** 316.26**Physical Description:** Powder**Synonyms:** 5,7-Dihydroxy-2-(4-hydroxyphenoxy)-6-methoxy-1-benzopyran-4-one.**[Intended Use]**

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

[Source]The herbs of *Artemisia capillaris*.**[Biological Activity or Inhibitors]**

Capillarisin is a novel blocker of STAT3 activation, can inhibit constitutive and inducible STAT3 activation through induction of SHP-1 and SHP-2 tyrosine phosphatases, thus it may have a potential in negative regulation of growth, metastasis, and chemoresistance of tumor cells.^[1]

Capillarisin suppresses PMA-induced MMP-9 expression through inhibition of the NF- κ B-dependent transcriptional activity of MMP-9 gene via p38 MAPK and JNK signaling pathways; capillarisin has no effect on enzymatic activity of MMP-9 and expression of tissue inhibitor of metalloproteinases (TIMP)-1 and TIMP-2, the major endogenous inhibitors of MMPs; suggests that capillarisin represents a potential anti-metastatic agent suppressing cancer cell invasion through specific inhibition of NF- κ B-dependent MMP-9 gene expression.^[2]

Capillarisin has protective effects on tert-butylhydroperoxide-induced oxidative damage in rat primary hepatocytes.^[3]

Capillarisin function as an antioxidant reduced hepatocyte injury caused by hydrophobic bile acids, perhaps by preventing generation of ROS and release of cytochrome c, thereby minimizing hepatocytes apoptosis; capillarisin has inhibition of in vitro growth of hepatoma cells.^[4,5]

Capillarisin inhibits proinflammatory cytokines, iNOS, and COX-2, which is attributed to the suppression of LPS-induced ERK, JNK, and nuclear factor- κ B (NF- κ B) activation, therefore, CPS potentially inhibits the biomarkers related to inflammation through the abrogation of ERK, JNK, and NF- κ B p65 activation, and it may be a potential therapeutic candidate for the treatment of inflammatory diseases.^[6]

Capillarisin has anti-hyperalgesic and anti-allodynic activities via suppression of inflammatory signaling in animal model.^[7]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[8]

Mobile phase: 0.025M Phosphoric acid solution (adjust pH to 3.0 with triethylamine)-Methanol-Acetonitrile =75:26:15;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 345 nm.

[Storage]

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

[References]

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- [3] Chu C Y, Tseng T H, Hwang J M, *et al. Archive Für Toxikologie*, 1999, 73(4):263-8.
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- [5] Lee T Y, Chen F Y, Chang H H, *et al. Mol. Cell. Biochem.*, 2009, 325(1-2):53-9.
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- [8] Chen F X. *Strait Pharmaceutical Journal*, 2007, 19(5):44-6.

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