



Quercetin-3-O-glucuronide Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Quercetin-3-O-glucuronide

Catalog No.: CFN92239

Cas No.: 22688-79-5

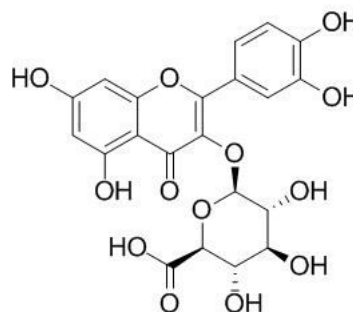
Purity: > 98%

M.F: C₂₁H₁₈O₁₃

M.W: 478.4

Physical Description: Yellow powder

Synonyms: Quercetin 3-glucuronide; Miquelianin; Querciturone.



[Intended Use]

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

[Source]

The vines of *Vitis vinifera*

[Biological Activity or Inhibitors]

Quercetin-3-O-glucuronide, significantly reduces the generation of β -amyloid ($A\beta$) peptides by primary neuron cultures generated from the Tg2576 AD mouse model, brain-targeted quercetin-3-O-glucuronide may simultaneously modulate multiple independent AD disease-modifying mechanisms, thus, it may contribute to the benefits of dietary supplementation with red wines as an effective intervention for AD.^[1]

Quercetin-3-O-glucuronide (0.1 μ M) suppresses invasion of MDA-MB-231 breast cancer cells and MMP-9 induction, and inhibited the binding of [3 H]-NA to β 2 -AR, suggests that it may function to suppress invasion of breast cancer cells by controlling β 2 -adrenergic signaling, and may be a dietary chemopreventive factor for stress-related breast cancer.^[2]

Quercetin-3-O-glucuronide are equally effective in inhibiting ROS-associated inflammation and ameliorating insulin resistant endothelial dysfunction by beneficial regulation of IRS-1 function.^[3]

Quercetin-3-O-glucuronide is a potential anti-atherogenic metabolite, enhancing the anti-inflammatory properties of M2a macrophages and modulating effects in the presence of pro-inflammatory stimuli.^[4]

Quercetin-3-O-glucuronide has anti-neuroinflammatory effects on LPS-induced neuroinflammation in BV2 Cells.^[5]

Quercetin-3-O-glucuronide induces ABCA1 in macrophages, and to provide an alternative explanation to previous studies on arteriosclerosis prevention by quercetin.^[6]

[Solvent]

Pyridine, DMSO, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[7]

Mobile phase: Methanol-0.05% Phosphoric acid H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 °C;

The wave length of determination: 254 nm.

[Storage]

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

[References]

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- [2] Yamazaki S, Miyoshi N, Kawabata K, *et al. Arch. Biochem. Biophys.*, 2014, 557:18-27.
- [3] Guo X D, Zhang D Y, Gao X J, *et al. Mol. Nutr. Food Res.*, 2013, 57(6):1037-45.
- [4] Derlindati E, Dall'Asta M, Ardigò D, *et al. Food Funct.*, 2012, 3(11):1144-52.
- [5] Yoon C S, Kim D C, Ko W M, *et al. Korean J. Pharm.*, 2014, 45(1):17-22.
- [6] Kazuaki Ohara, Hideyuki Wakabayashi, Yoshimasa Taniguchi, *et al. Biochem. Bioph. Res. Co.*, 2013, 441(4):929-34.
- [7] Fan D S, Zhao C , Chen H G, *et al. Journal of Instrumental Analysis*, 2012.

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