



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
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### SZABO-SCANDIC HandelsgmbH

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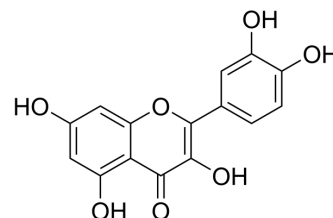
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## Quercetin (GMP)

<b>Cat. No.:</b>	HY-18085G
<b>CAS No.:</b>	117-39-5
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>10</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	302.24
<b>Target:</b>	PI3K; Autophagy; Mitophagy; Apoptosis; Reactive Oxygen Species
<b>Pathway:</b>	PI3K/Akt/mTOR; Autophagy; Apoptosis; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB
<b>Storage:</b>	4°C, sealed storage, away from moisture and light



### BIOLOGICAL ACTIVITY

<b>Description</b>	Quercetin GMP is <a href="#">Quercetin</a> (HY-18085) produced by using GMP guidelines. GMP small molecules works appropriately as an auxiliary reagent for cell therapy manufacture. Quercetin is a flavonoid antioxidant, a PI3K inhibitor and a SIRT1 Activator <sup>[1]</sup> <sup>[2]</sup> <sup>[3]</sup> <sup>[4]</sup> <sup>[5]</sup> <sup>[6]</sup> .
<b>In Vitro</b>	<p>Quercetin GMP (10, 50 and 100 μM) increases osteogenesis of mesenchymal stem cells (mASCs)<sup>[1]</sup>.</p> <p>Quercetin GMP (0.1-10 μM) dose-dependently decreases osteoclastogenesis induced by RANKL<sup>[2]</sup>.</p> <p>Quercetin GMP (2 μM) dose-dependently enhances the osteogenic differentiation and angiogenic factor secretion of rat bone marrow-derived mesenchymal stem cells (rBMSCs)<sup>[3]</sup>.</p> <p>Quercetin GMP (2-5 μM) inhibits bone resorption via inhibiting the differentiation and activation of osteoclasts<sup>[4]</sup>.</p> <p>Quercetin (5 μM; 2-4 d) dose-dependently increases osteogenic differentiation<sup>[5]</sup>.</p> <p>Quercetin (0-5 μM; 6 d) increases osteoblastic differentiation and extracellular matrix production and mineralization<sup>[6]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### CUSTOMER VALIDATION

- Adv Funct Mater. 27 January 2022.
- Nat Aging. 2024 Apr;4(4):527-545.
- Environ Pollut. 25 August 2021, 118036.
- Food Chem. 2022: 134807.
- Biomed Pharmacother. 2024 Apr 25:175:116606.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

- [1]. Zhou C, Lin Y. Osteogenic differentiation of adipose-derived stem cells promoted by quercetin. Cell Prolif. 2014 Apr;47(2):124-32.
- [2]. Wattel A, et al. Flavonoid quercetin decreases osteoclastic differentiation induced by RANKL via a mechanism involving NF kappa B and AP-1. J Cell Biochem. 2004 May 15;92(2):285-95.

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[3]. Zhou Y, et al. The Effect of Quercetin on the Osteogenic Differentiation and Angiogenic Factor Expression of Bone Marrow-Derived Mesenchymal Stem Cells. PLoS One. 2015 Jun 8;10(6):e0129605.

[4]. Woo JT, et al. Quercetin suppresses bone resorption by inhibiting the differentiation and activation of osteoclasts. Biol Pharm Bull. 2004 Apr;27(4):504-9.

[5]. Kim YJ, et al. Quercetin, a flavonoid, inhibits proliferation and increases osteogenic differentiation in human adipose stromal cells. Biochem Pharmacol. 2006 Nov 15;72(10):1268-78.

[6]. Pang XG, et al. Quercetin Stimulates Bone Marrow Mesenchymal Stem Cell Differentiation through an Estrogen Receptor-Mediated Pathway. Biomed Res Int. 2018 Mar 15;2018:4178021.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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