



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



Osteomodulin (human, recombinant)

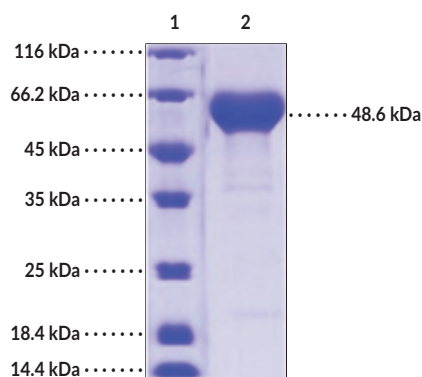
Item No. 38054

Overview and Properties

Synonyms:	Keratan Sulfate Proteoglycan Osteomodulin, KSPG Osteomodulin, OMD, OSAD, Osteoadherin
Source:	Recombinant human C-terminal His-tagged osteomodulin expressed in HEK293 cells
Amino Acids:	21-421
Uniprot No.:	Q99983
Molecular Weight:	48.6 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥95% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing:	<1.0 EU/μg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Osteomodulin

SDS-PAGE Analysis of Osteomodulin. This protein has a calculated molecular weight of 48.6 kDa.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/16/2023

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Osteomodulin (OMD), is a class II keratan sulfate small leucine-rich proteoglycan (SLRP) with roles in bone mineralization, cell adhesion, tooth formation, and the regulation of collagen fibrils.^{1,2} It is primarily expressed in mineralized tissues, including bones and teeth, but is also expressed in articular chondrocytes and fibrochondrocytes.¹ OMD binds to bone morphogenetic protein 2 (BMP2), promoting SMAD signaling and osteogenesis. It also binds to type I collagen and induces morphology and size changes in collagen fibrils, indicating a role in the regulation of extracellular matrix components during bone formation.² Increased plasma levels of OMD are associated with cardiac calcification in patients with chronic kidney disease (CKD).³ Serum levels of OMD are increased and positively correlated with plaque calcification in patients with carotid atherosclerosis. Serum levels of OMD are also decreased in patients with osteoarthritis.⁴ Cayman's Osteomodulin (human, recombinant) protein consists of 412 amino acids, has a calculated molecular weight of 48.6 kDa, and a predicted N-terminus of Gln21 after signal peptide cleavage.

References

1. Lin, W., Zhu, X., Gao, L., *et al.* Osteomodulin positively regulates osteogenesis through interaction with BMP2. *Cell Death Dis.* **12(2)**, 147 (2021).
2. Tashima, T., Nagatoishi, S., Sagara, H., *et al.* Osteomodulin regulates diameter and alters shape of collagen fibrils. *Biochem. Biophys. Res. Commun.* **463(3)**, 292-296 (2015).
3. Skenteris, N.T., Seime, T., Witasz, A., *et al.* Osteomodulin attenuates smooth muscle cell osteogenic transition in vascular calcification. *Clin. Transl. Med.* **12(2)**, e682 (2022).
4. Sanchez, C., Mazzucchelli, G., Lambert, C., *et al.* Proteomic analysis of osteoblasts secretome provides new insights in mechanisms underlying osteoarthritis subchondral bone sclerosis. *Osteoarthritis Cartilage* **26(Suppl 1)**, S89 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM