

Product Datasheet

Bone Morphogenetic Protein 4, BMP4 (orb3148691)

Catalog Number	orb3148691
Category	Proteins
Description	Recombinant mature human BMP4 is produced in HEK293 cells using stable mammalian expression. This tag-free, liquid-formulated, research-grade protein is purified through a gentle mixed-mode chromatography process designed to preserve its native structure and biological activity. It is suitable for stem cell differentiation, developmental biology, organoid workflows, lineage specification, and media development applications. (Tested applications: Functional studies, ImmunoAssay, Western Blot.)
Tag	No tag
Form/Appearance	Liquid (Sterile-filtered)
Buffer/Preservatives	20mM histidine pH 5.5, 0.2M NaCl, 0.6M arginine
Purity	>95%
Purification	Mixed-mode chromatography
Protein Sequence	SPKHHSQRARKKNKNCRRHSLYVDFSDVGVNDWIVAPPGYQAFYCHGDCPFPLADHLNS TNHAIVQTLVNSVNSSIPKACCVPTELSAISMLYLDEYDKVVLKKNYQEMVVEGCGCR
UniProt ID	P12644
MW	13 kDa
Tested applications	FA, WB

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Application notes

Biologically active and independently validated against human BMP4 from R&D Systems in two differentiation models. 1. In a cardiac differentiation model, Daresbury BMP4 supported beating embryoid body formation and NKX2.5-GFP expression at 11 ng/mL, compared with 25 ng/mL for the commercial reference under the reported conditions. 2. In day-5 trophoblast differentiation of MAN13 hESCs at 10 ng/mL, this product induced CDX2, GATA3, KRT7, and TFAP2A expression by 1540-, 2350-, 7.69-, and 4542-fold, respectively, relative to the untreated control (= 1). These responses corresponded to approximately 90%, 122%, 88%, and 88% of the R&D Systems reference response, respectively.

Expression System

HEK293 Cells

Biological Origin

Human

Expression Region

293-408 aa

Storage

4°C for short-term and -70°/80°C long-term

Dry Ice Shipping

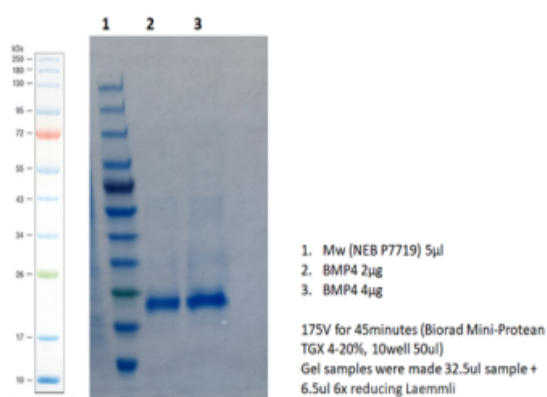
Please note: This product requires shipment on dry ice. A dry ice surcharge will apply.

Note

For research use only

Expiration Date

6 months from date of receipt.



SDS-PAGE gel analysis of orb3148691.

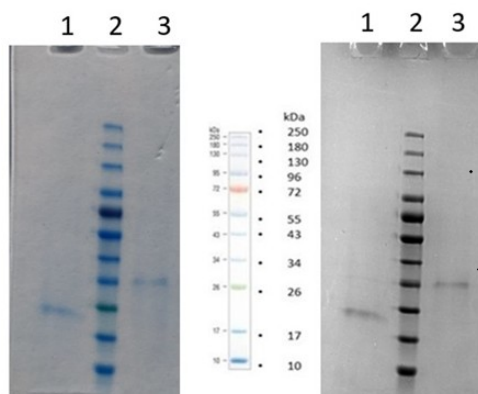
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68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713-2847
United States

Email: info@biorbyt.com, support@biorbyt.comPhone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)



1. BMP4 Reducing. 2. MW (NEB P7719) 5uL. 3. 175V for 45minutes (Biorad Mini-Protean TGX 4-20%, 10well 50uL). Gel samples were made 50uL sample + 10ul 6x(NON) reducing Laemmli. Loading aiming for ~2ug.

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