Cytokines

Human Recombinant Osteopontin

Osteopontin, His tag

Catalog #100-1296

100 µg

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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
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Product Description

Osteopontin (OPN), also known as secreted phosphoprotein 1 (SPP1), is a member of the SIBLING family of glycoproteins (Rangaswami et al.). Human OPN is initially secreted as a 317 amino acid protein, which is subject to tissue-specific post-translational modifications by glycosylation, phosphorylation, and transglutamination (Kazanecki et al.; Sodek et al.). It contains a His-residue tag at the amino end of the polypeptide chain. OPN is expressed in and secreted by a wide range of cells and plays an important role in cell signaling, migration, and activation (Weber et al., 2002). It also functions as T-helper 1 cytokine and has shown to regulate inflammation both in vitro and in vivo (Agnholt et al.; Kiefer et al.). OPN has been implicated in the pathophysiology of various cancers, including prostate (Thalmann et al.), lung (Chambers et al.), ovarian (Kim et al.), and breast cancer (Weber et al., 2015).

Product Information

Alternative Names:	BNSP, BSPI, ETA-1, OPN, SPP1
Accession Number:	NP_001035147.1 (Ile17-Gly166) was expressed with a polyhistidine tag at the N-terminus.
Amino Acid Sequence:	MPLLLLLPLL WAGALAHHHH HHHHHHALEV LFQGPIPVKQ ADSGSSEEKQ LYNKYPDAVA TWLNPDPSQK QNLLAPQNAV SSEETNDFKQ ETLPSKSNES HDHMDDMDDE DDDDHVDSQD SIDSNDSDDV DDTDDSHQSD ESHHSDESDE LVTDFPTDLP ATEVFTPVVP TVDTYDGRGD SVVYG
Predicted Molecular Mass:	20.64 kDa
Species:	Human
Formulation:	Lyophilized from sterile PBS, pH 7.4. Trehalose (5 - 8%), mannitol, and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.
Source:	HEK293 cells

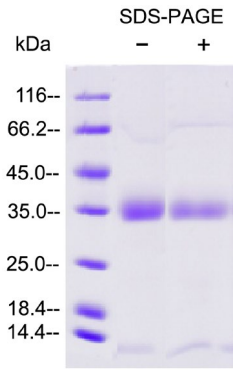
Specifications

Activity:	Not available
Purity:	≥ 92%
Endotoxin Level:	Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

Preparation and Storage

Storage:	Store at -20 to -80°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Preparation:	Centrifuge vial before opening. Reconstitute the product in sterile PBS (pH 7.4) to at least 0.25 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



Human Recombinant Osteopontin was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant Osteopontin has a predicted molecular mass of 20.64 kDa but an apparent molecular mass of 35 kDa due to glycosylation.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines, or contact us at techsupport@stemcell.com.

References

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