

Osteopontin (OPN) Active Protein | OPN active protein

Active Osteopontin (OPN)

CATALOG # AAA146622	HOST 293F cell	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Osteopontin (OPN); Active Osteopontin (OPN); SPP1; BNSP; BSP1; ETA1; Secreted Phosphoprotein 1; Bone Sialoprotein I; Early T-Lymphocyte Activation 1; Nephropontin; Urinary stone protein; Uropontin; OPN active protein

PRODUCT SPECIFICATIONS

Host	293F cell
Purity/Purification	> 95%
Form/Format	Freeze-dried powder
Sequence Length	300
Applicable Applications for OPN active protein	Activity Assay, Cell Culture
Fragment	Leu17~Asn317
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Organism Species	Rat
Isoelectric Point	4.3
Usage	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Application Data

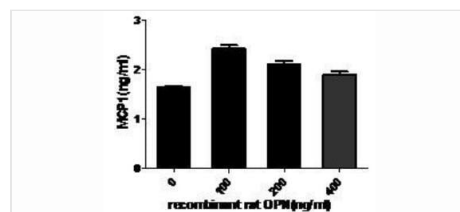


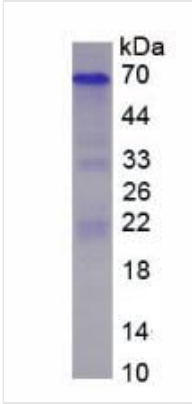
Figure 1. MCP-1 levels in the cell supernatant of MCF-7 cells regulated by OPN.

Application Data

Sample (cell supernatant of MCF-7 cells)	O.D. value	Corrected	Concentration of MCP-1 (ng/mL)
stimulated with OPN (100ng/mL)	1.358	1.305	2.53
stimulated with OPN (200ng/mL)	1.177	1.124	2.15
stimulated with OPN (400ng/mL)	1.101	1.048	1.99
unstimulated	0.944	0.891	1.66

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SDS-PAGE

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Activity

Osteopontin (OPN), a multifunctional phosphorylated glycoprotein, plays an important role in neutrophil recruitment and was found to induce the expression of proinflammatory chemokines including MCP-1 and MIP-1beta which promote migration and recruitment of inflammatory cells. It has been reported that OPN induces MCP-1 expression through the NF-kappa B pathways in MCF-7 breast cancer cell line. Briefly, MCF-7 cells were seeded overnight at a density of 1×10^5 cells/mL, and treated with or without various concentrations of OPN for 24h and MCP-1 levels in the cell supernatant were determined by ELISA. MCP-1 levels in the cell supernatant of MCF-7 cells increased significantly after stimulated with OPN, the data was shown in Table 1 and Figure 1.

ADDITIONAL INFORMATION

Product Categories/Family for OPN
active protein

Active Protein

NCBI AND UNIPROT INFORMATION

NCBI GI #	4759166
NCBI GeneID	6696
NCBI Accession #	NP_000573.1
NCBI GenBank Nucleotide #	NM_000582.2
UniProt Accession #	P10451; Q15681; Q15682; Q15683; Q4W597; Q567T5; Q8NBK2; Q96IZ1; B2RDA1
Molecular Weight	34.9kDa; 60kDa
NCBI Official Full Name	osteopontin isoform OPN-b
NCBI Official Synonym Full Names	secreted phosphoprotein 1
NCBI Official Symbol	SPP1
NCBI Official Synonym Symbols	OPN; BNSP; BSPI; ETA-1
NCBI Protein Information	osteopontin
UniProt Protein Name	Osteopontin
UniProt Gene Name	SPP1
UniProt Synonym Gene Names	BNSP; OPN; SPP-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/293f-active-protein/osteopontin-opn/146622>