

## Osteopontin/OPN-b Protein, Human, Recombinant (aa 17-300, His)

## General Information

Synonyms:	BSP-1;Nephropontin;BNSP;ETA-1;OPN;Bone sialoprotein 1;BSPI;Uropontin;SPP-1;Osteopontin;SPP1
Protein Construction:	Ile17-Asn300
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P10451-5
Molecular Weight:	34.8 kDa (predicted). Due to glycosylation, the protein migrates to 50-60 kDa based on Tris-Bis PAGE result.

## QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

## Preparation and Storage

## Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

## Stability &amp; Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

## Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

## Protein Background

Ovarian cancer is one of the most lethal malignant tumors in women. Secreted phosphoprotein 1 (SPP1) plays an important role in some cancer types. The expression of SPP1 was higher in epithelial ovarian cancer tissues than in normal ovarian tissues. Silencing SPP1 decreased the cell proliferation, migration, and invasion. Ectopic expression of SPP1 increased the cell proliferation, migration, and invasion. Silencing SPP1 prevented ovarian

cancer growth in mice. Silencing SPP1 inhibited Integrin  $\beta$ 1/FAK/AKT pathway.

Reference

Zeng B, et al. SPP1 promotes ovarian cancer progression via Integrin  $\beta$ 1/FAK/AKT signaling pathway. Onco Targets Ther. 2018 Mar 12;11:1333-1343. doi: 10.2147/OTT.S154215. PMID: 29559792; PMCID: PMC5856063.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481