## For Research Use Only

## Recombinant Rat Osteopontin protein (mFc Tag) (HPLC verified)



Catalog Number: Eg3246

**Basic Information** 

Species: Rat

Purity: >80 %, SDS-PAGE<br>>90 %, SEC-HPLC

Tag: mFc Tag

**Technical Specifications** 

**Purity:** >80 %, SDS-PAGE<br > >90 %, SEC-HPLC

**Endotoxin Level:** 

<0.1 EU/ µg protein, LAL method

HEK293-derived Rat Osteopontin protein Leu17-Asn317 (Accession# P08721) with a mouse IgG Fc tag at the Cterminus.

GeneID: 25353

Accession: P08721

**Predicted Molecular Mass:** 

59.9 kDa SDS-PAGE

80-90 kDa, reducing (R) conditions

Lyophilized from 0.22  $\,\mu$  m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

**Biological Activity** 

Not tested

Storage and Shipping

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Until expiry date, -20°C to -80°C as lyophilized proteins.
3 months, -20°C to -80°C under sterile conditions after reconstitution.

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

**Background** 

Osteopontin (OPN), also called secreted phosphoprotein 1 (SPP1), is encoded by the gene SPP1. OPN is a glycoprotein and presents different post-translational modifications according to the tissue of expression. OPN is a multifunctional phosphorylated protein involved in physiological and pathological events. Under physiological conditions, circulating and tissue OPN expression levels are relatively low, and OPN is suggested to play a key role in regulating biomineralization, wound healing, and developmental processes. Under pathological conditions, OPN is often significantly upregulated and exerts pleiotropic effects in several inflammatory, autoimmune, degenerative, fibrosis, and oncologic diseases, such as diabetes, stroke, kidney injury, cardiac fibrosis, and cancers.

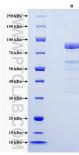
References

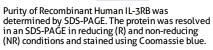
1.Lamort AS. et al. (2019) Cells. 8(8):815. 2.Shirakawa K and Sano M. (2021) Biomolecules. 11(7):1047. 3.Yim A. et al. (2022) Immunol Rev. 311(1):224-233. 4.Lin EY. et al. (2023) Int Immunol. 35(4):171-180. 5.Jia Q. et al. (2024) Lung. 202(1):25-39.

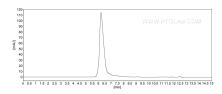
Synonyms

2b7, Bone sialoprotein 1, Secreted phosphoprotein 1, Spp1, SPP-1

## **Selected Validation Data**







The purity of Rat Osteopontin was greater than 90% as determined by SEC-HPLC.