

Active Osteopontin (OPN) Instruction Manual

SBPA204Hu61

Homo sapiens (Human)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 95%

Isoelectric Point

4.3

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

Sample (cell supernatant of MCF-7 cells)	O.D. value	Corrected	Concentration of MCP-1 (ng/mL)
stimulated with OPN (100ng/mL)	0.970	0.922	1.72
stimulated with OPN (200ng/mL)	1.155	1.107	2.11
unstimulated	0.674	0.626	1.11

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

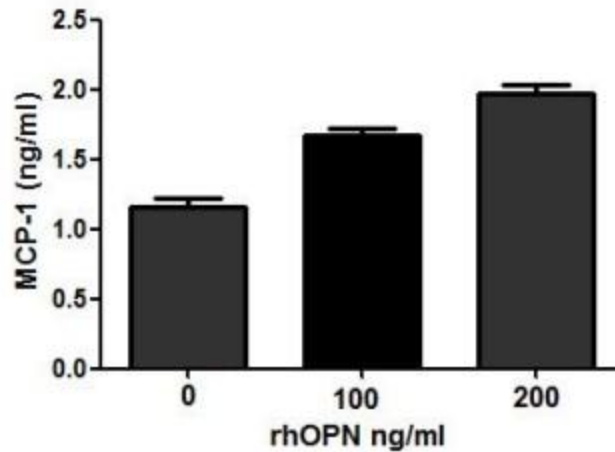


Figure 1. MCP-1 levels in the cell supernatant of MCF-7 cells regulated by OPN.

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-1 β which would 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 OPN (100ng/ml, 200ng/ml) 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.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

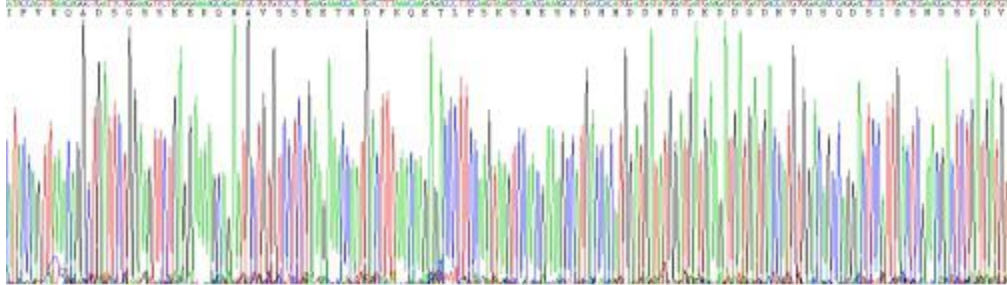
STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

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°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.

Image



SDS-PAGE Image

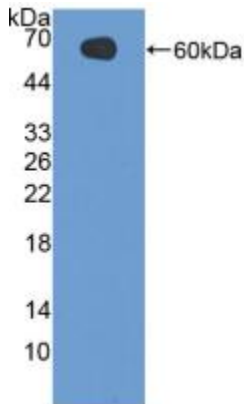


Figure. Western Blot; Sample: Recombinant OPN, Human.

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.