

## Osteopontin/OPN Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70499
<b>Synonyms:</b>	Osteopontin; Bone Sialoprotein 1; Nephropontin; Secreted Phosphoprotein 1; SPP-1; Urinary Stone Protein; Uropontin; SPP1; BNSP; OPN
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P10451-1 (I17-N314)
<b>Gene ID:</b>	6696
<b>Molecular Weight:</b>	Approximately 50-65 kDa due to the glycosylation

### PROPERTIES

<b>AA Sequence</b>	<pre> I P V K Q A D S G S   S E E K Q L Y N K Y   P D A V A T W L N P   D P S Q K Q N L L A P Q N A V S S E E T   N D F K Q E T L P S   K S N E S H D H M D   D M D D E D D D D H V D S Q D S I D S N   D S D D V D D T D D   S H Q S D E S H H S   D E S D E L V T D F P T D L P A T E V F   T P V V P T V D T Y   D G R G D S V V Y G   L R S K S K K F R R P D I Q Y P D A T D   E D I T S H M E S E   E L N G A Y K A I P   V A Q D L N A P S D W D S R G K D S Y E   T S Q L D D Q S A E   T H S H K Q S R L Y   K R K A N D E S N E H S D V I D S Q E L   S K V S R E F H S H   E F H S H E D M L V   V D P K S K E E D K H L K F R I S H E L   D S A S S E V N           </pre>
<b>Biological Activity</b>	Measured by the ability of the immobilized protein to support the adhesion of HEK293 human embryonic kidney cells. The ED <sub>50</sub> for this effect is <0.1817 µg/mL, corresponding to a specific activity is >5503.58 units/mg.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	Osteopontin (OPN) protein is a significant non-collagenous bone protein that exhibits a strong binding affinity to
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hydroxyapatite, making it an integral component of the mineralized matrix. It likely plays a crucial role in cell-matrix interactions. Moreover, OPN acts as a cytokine, facilitating the production of interferon-gamma and interleukin-12 while suppressing the production of interleukin-10. These functions are vital in the pathway that promotes type I immunity.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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