

Human OPN Antibody Pair Set

Catalog No.	E-KAB-0183	Applications	ELISA
Synonyms	SPP1, BNSP, BSP1, ETA-1, Bone Sialoprotein I, Secreted Phosphoprotein 1, Early T-Lymphocyte Activation 1		

Kit components & Storage

Title	Specifications	Storage
Human OPN Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze / thaw cycles.
Human OPN Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze / thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

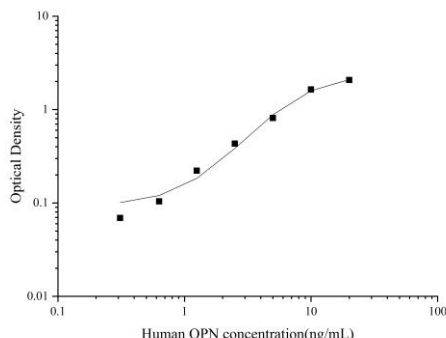
Product Information

Items		Characteristic (E-KAB-0183)	
		Human OPN Capture Antibody	Human OPN Detection Antibody (Biotin)
Immunogen Information	Immunogen	Recombinant Human OPN protein	Recombinant Human OPN protein
	Swissprot	P10451	
Product details	Reactivity	Human	Human
	Host	Mouse	Goat
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Protein A or G	Antigen Affinity
	Specificity	Detects Human OPN in ELISAs.	

For Research Use Only

Applications

Human OPN Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																				
ELISA Capture	0.5-4µg/mL	Human OPN Capture Antibody	 <p>The graph is a standard curve for the Human OPN Sandwich ELISA Assay. The x-axis represents Human OPN concentration in ng/mL on a logarithmic scale from 0.1 to 100. The y-axis represents Optical Density on a logarithmic scale from 0.01 to 10. The data points show a clear upward trend, indicating that as the concentration of Human OPN increases, the optical density also increases. The curve is fitted with a smooth line.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human OPN concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr> <td>0.1</td> <td>0.05</td> </tr> <tr> <td>0.2</td> <td>0.08</td> </tr> <tr> <td>0.5</td> <td>0.15</td> </tr> <tr> <td>1</td> <td>0.25</td> </tr> <tr> <td>2</td> <td>0.45</td> </tr> <tr> <td>5</td> <td>0.8</td> </tr> <tr> <td>10</td> <td>1.2</td> </tr> <tr> <td>20</td> <td>1.8</td> </tr> <tr> <td>50</td> <td>2.5</td> </tr> </tbody> </table>	Human OPN concentration (ng/mL)	Optical Density	0.1	0.05	0.2	0.08	0.5	0.15	1	0.25	2	0.45	5	0.8	10	1.2	20	1.8	50	2.5
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ELISA Detection	1:1000-1:10000	Human OPN Detection Antibody (Biotin)																					

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

The protein encoded by this gene is involved in the attachment of osteoclasts to the mineralized bone matrix. The encoded protein is secreted and binds hydroxyapatite with high affinity. The osteoclast vitronectin receptor is found in the cell membrane and may be involved in the binding to this protein. This protein is also a cytokine that upregulates expression of interferon-gamma and interleukin-12. Several transcript variants encoding different isoforms have been found for this gene.