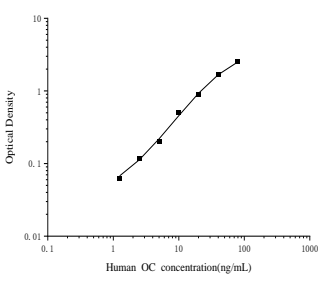




## Applications

Human OC Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																
ELISA Capture	0.5-4 µg/mL	Human OC Capture Antibody	 <p>The graph is a log-log plot of Optical Density versus Human OC concentration (ng/mL). The x-axis ranges from 0.1 to 1000 ng/mL, and the y-axis ranges from 0.01 to 10. The data points form a straight line, indicating a power-law relationship between concentration and optical density.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human OC concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.05</td></tr> <tr><td>2</td><td>0.1</td></tr> <tr><td>5</td><td>0.2</td></tr> <tr><td>10</td><td>0.4</td></tr> <tr><td>20</td><td>0.8</td></tr> <tr><td>50</td><td>1.5</td></tr> <tr><td>100</td><td>3.0</td></tr> </tbody> </table>	Human OC concentration (ng/mL)	Optical Density	1	0.05	2	0.1	5	0.2	10	0.4	20	0.8	50	1.5	100	3.0
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ELISA Detection	1:1000-1:10000	Human OC Detection Antibody (Biotin)																	

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

## Background

Bone gamma-carboxyglutamic acid (Gla) protein, known as BGLAP, BGP or osteocalcin, is an abundant, non-collagenous protein component of bone that is produced by osteoblasts. In mice, osteocalcin is composed of a cluster of 3 genes known as OG1, OG2 and ORG, all of which can be found within a 23Kb span of genomic DNA. Human osteocalcin is a highly conserved, 46-50 amino acid, single chain protein that contains three vitamin K-dependent g-carboxyglutamic acid residues. Osteocalcin appears transiently in embryonic bone at the time of mineral deposition, where it binds to hydroxyapatite in a calcium-dependent manner.