

Human IgG Antibody Pair Set

Catalog No. E-KAB-0039

Applications

ELISA

Synonyms IgG

Kit components & Storage

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

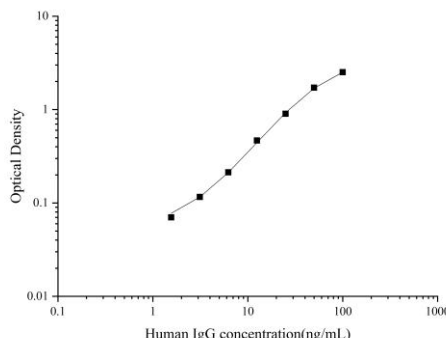
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0039)	
		Human IgG Capture Antibody	Human IgG Detection Antibody (Biotin)
Immunogen Information	Immunogen	Native Protein	Native Protein
	Swissprot	P01860(IGHG3)	
Product details	Reactivity	Human	Human
	Host	Rabbit	Mouse
	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	Antigen Affinity	Protein A
	Specificity	Detects Human IgG in ELISAs.	

Applications

Human IgG Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																
ELISA Capture	0.5-4μg/mL	Human IgG Capture Antibody	 <p>The graph is a log-log plot of Optical Density versus Human IgG 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 smooth, upward-sloping curve, indicating a positive correlation between IgG concentration and optical density.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human IgG concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr><td>1</td><td>0.08</td></tr> <tr><td>2</td><td>0.12</td></tr> <tr><td>5</td><td>0.25</td></tr> <tr><td>10</td><td>0.4</td></tr> <tr><td>20</td><td>0.7</td></tr> <tr><td>50</td><td>1.5</td></tr> <tr><td>100</td><td>2.5</td></tr> </tbody> </table>	Human IgG concentration (ng/mL)	Optical Density	1	0.08	2	0.12	5	0.25	10	0.4	20	0.7	50	1.5	100	2.5
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ELISA Detection	1:1000-1:10000	Human IgG Detection Antibody (Biotin)																	

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

Background

Constant region of immunoglobulin heavy chains. Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins-secreting plasma cells. Secreted immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens. The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen.