

Human IgM Antibody Pair Set

Catalog No. E-KAB-0124

Applications

ELISA

Synonyms IgM

Kit components & Storage

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

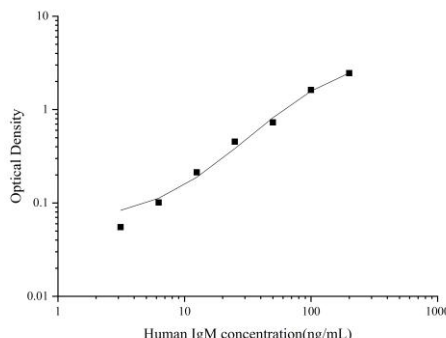
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0124)	
		Human IgM Capture Antibody	Human IgM Detection Antibody (Biotin)
Immunogen Information	Immunogen	Native Protein	Native Protein
	Swissprot	P01871	
Product details	Reactivity	Human	Human
	Host	Rabbit	Rabbit
	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	Protein A or G
	Specificity	Detects Human IgM in ELISAs.	

Applications

Human IgM Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images										
ELISA Capture	0.5-4µg/mL	Human IgM Capture Antibody	 <p>The graph is a log-log plot of Optical Density versus Human IgM concentration (ng/mL). The x-axis ranges from 1 to 1000 ng/mL, and the y-axis ranges from 0.01 to 10. The data points show a clear upward trend, indicating that as the concentration of Human IgM increases, the optical density also increases. The curve is smooth and passes through several data points.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human IgM concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.05</td> </tr> <tr> <td>10</td> <td>0.2</td> </tr> <tr> <td>100</td> <td>1.0</td> </tr> <tr> <td>1000</td> <td>5.0</td> </tr> </tbody> </table>	Human IgM concentration (ng/mL)	Optical Density	1	0.05	10	0.2	100	1.0	1000	5.0
Human IgM concentration (ng/mL)	Optical Density												
1	0.05												
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100	1.0												
1000	5.0												
ELISA Detection	1:1000-1:10000	Human IgM Detection Antibody (Biotin)											

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

Background

Immunoglobulins (Ig) are the antigen recognition molecules of B cells. An Ig molecule is made up of 2 identical heavy chains and 2 identical light chains (see MIM 147200) joined by disulfide bonds so that each heavy chain is linked to a light chain and the 2 heavy chains are linked together. Each Ig heavy chain has an N-terminal variable (V) region containing the antigen-binding site and a C-terminal constant (C) region, encoded by an individual C region gene, that determines the isotype of the antibody and provides effector or signaling functions. The heavy chain V region is encoded by 1 each of 3 types of genes: V genes (see MIM 147070), joining (J) genes (see MIM 147010), and diversity (D) genes (see MIM 146910). The C region genes are clustered downstream of the V region genes within the heavy chain locus on chromosome 14. IGHM (Immunoglobulin Heavy Constant Mu) is a Protein Coding gene. Diseases associated with IGHM include Agammaglobulinemia 1 and Agammaglobulinemia, Non-Bruton Type. Among its related pathways are Development Angiotensin activation of ERK and Immune response Lectin induced complement pathway. GO annotations related to this gene include single-stranded DNA binding and phosphatidylcholine binding. An important paralog of this gene is IGHG1.