

Rat IgG Antibody Pair Set

Catalog No. E-KAB-0101

Applications

ELISA

Synonyms IgG

Kit components & Storage

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

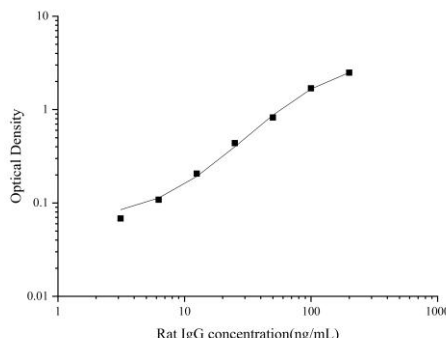
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

| Items | | Characteristic (E-KAB-0101) | |
|-----------------------|---------------|--|---|
| | | Rat IgG Capture Antibody | Rat IgG Detection Antibody (Biotin) |
| Immunogen Information | Immunogen | Native Protein | Native Protein |
| | Swissprot | P20762 | |
| Product details | Reactivity | Rat | Rat |
| | 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 Rat IgG in ELISAs. | |

Applications

Rat IgG Sandwich ELISA Assay:

| | Recommended Concentration/Dilution | Reagent | Images | | | | | | | | | | |
|-------------------------------|------------------------------------|-------------------------------------|---|-------------------------------|-----------------|---|------|----|-----|-----|-----|------|-----|
| ELISA Capture | 0.5-4μg/mL | Rat IgG Capture Antibody |  <p>The graph is a log-log plot of Optical Density versus Rat IgG concentration (ng/mL). The y-axis (Optical Density) ranges from 0.01 to 10, and the x-axis (Rat IgG concentration) ranges from 1 to 1000. The data points form a smooth, upward-sloping curve, indicating a positive correlation between concentration and optical density.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Rat IgG 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> | Rat IgG concentration (ng/mL) | Optical Density | 1 | 0.05 | 10 | 0.2 | 100 | 1.0 | 1000 | 5.0 |
| Rat IgG concentration (ng/mL) | Optical Density | | | | | | | | | | | | |
| 1 | 0.05 | | | | | | | | | | | | |
| 10 | 0.2 | | | | | | | | | | | | |
| 100 | 1.0 | | | | | | | | | | | | |
| 1000 | 5.0 | | | | | | | | | | | | |
| ELISA Detection | 1:1000-1:10000 | Rat 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.