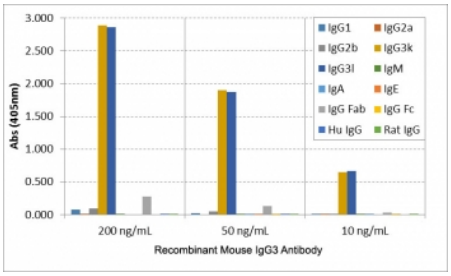
# Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody [clone RM218] (R20168)

| Catalog No. | Formulation | Size |
|---|---|---|
| R20168-100UG | 1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide | 100 ug |

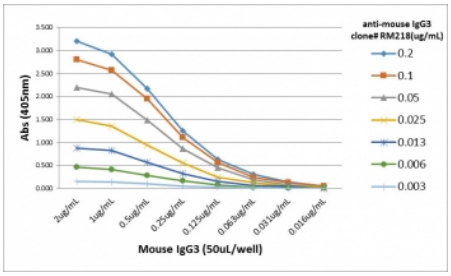
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Mouse |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | RM218 |
| **Purity** | Protein A purified from animal origin-free supernatant |
| **UniProt** | P03987 |
| **Gene ID** | 380795 |
| **Applications** | ELISA : 0.005-0.2ug/ml |
| **Limitations** | This Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody is available for research use only. |




Mouse IgG3 Antibody for ELISA Subclass Specificity Analysis. ELISA analysis of mouse immunoglobulins demonstrates that clone RM218 selectively recognizes Mouse IgG3, with strong signal observed for both IgG3 kappa and IgG3 lambda across tested concentrations. No cross-reactivity is detected with IgG1, IgG2a, IgG2b, IgM, IgA, or IgE, or with human or rat IgG. The binding profile is consistent with Fab region-directed recognition and supports selective detection of IgG3 independent of light chain composition. These results support the use of this Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody for precise subclass-specific detection in ELISA-based immunoassays.




Mouse IgG3 Antibody for ELISA Titration Curve. ELISA titration analysis using plates coated with serial dilutions of mouse IgG3 demonstrates strong, concentration-dependent binding of clone RM218 across a broad dynamic range. Signal intensity decreases proportionally with antibody dilution, confirming high sensitivity and consistent binding performance. Detection was performed using an alkaline phosphatase-conjugated anti-rabbit IgG secondary antibody, supporting reliable quantification of Mouse IgG3 in ELISA-based immunoassays.

## Description

Mouse immunoglobulin gamma 3 (IgG3) is a structurally distinct IgG subclass in murine systems characterized by an extended hinge region and a strong tendency to form multimeric immune complexes. IgG3 is most commonly associated with responses to T-independent antigens, particularly polysaccharides, and plays a critical role in early-stage humoral immunity. Unlike IgG1 and IgG2 subclasses, which are more closely linked to T cell-dependent responses, IgG3 production reflects innate-like B cell activation and provides insight into early antibody-mediated defense mechanisms.

Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody is specifically optimized for high-sensitivity and subclass-specific detection of IgG3 in ELISA-based immunoassays. Mouse IgG3 antibody, also known as anti-IgG3 antibody or anti-mouse IgG3 subclass antibody, is widely used to quantify IgG3 responses and to distinguish IgG3 from other mouse IgG subclasses such as IgG1, IgG2a, and IgG2b. This recombinant rabbit monoclonal antibody clone RM218 recognizes the Fab region of mouse IgG3, enabling highly specific detection of the antigen-binding domain and providing a distinct alternative to Fc-directed detection strategies.

In ELISA workflows, Fab-directed detection offers a key advantage by targeting the antigen-binding region rather than the Fc domain, reducing interference from Fc-mediated interactions and improving assay specificity. The Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody functions effectively as a detection reagent in sandwich ELISA formats, binding selectively to IgG3 captured on assay plates while minimizing background from other immunoglobulin subclasses. This is particularly valuable in applications requiring precise subclass discrimination in complex antibody mixtures.

Clone RM218 antibody targets the Fab region of mouse IgG3, ensuring selective detection without cross-reactivity to other mouse IgG subclasses or immunoglobulin classes. The recombinant rabbit monoclonal format provides high affinity binding, excellent reproducibility, and minimal lot-to-lot variability. Fab-directed recognition also supports improved specificity in samples where Fc-mediated interactions may contribute to non-specific background.

Detection of IgG3 is widely applied in immunology research, antibody development, and studies of T-independent immune responses. Because IgG3 plays a unique role in immune complex formation and early antibody production, accurate measurement provides valuable insight into immune activation pathways and antibody response dynamics. This antibody supports these applications by enabling selective and reliable detection of IgG3 immunoglobulins in ELISA-based systems requiring high specificity, reduced background, and consistent performance.

This antibody is part of a broader immunoglobulin detection antibody collection, including reagents for Ig classes and light chains across multiple species and immunoassay formats.

## Application Notes

The stated application concentrations are suggested starting points. Titration of the Mouse IgG3 Antibody for ELISA / Anti-Mouse IgG3 ELISA Detection Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

Mouse IgG3 was used as the immunogen for this recombinant Mouse IgG3 antibody.

## Storage

Store the recombinant Mouse IgG3 antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).

## Alternate Names

Anti-Mouse IgG3 ELISA antibody, Mouse IgG3 detection antibody, IgG3 ELISA detection antibody, Immunoglobulin G3 ELISA antibody, Mouse IgG3 Fab antibody


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