

## Technical Data Sheet

### APC Rat IgM Isotype Control Antibody

**Catalog Number:** 302704  
**Size:** 25 ug  
**Target Name:** Rat IgM isotype control  
**Regulatory Status:** RUO

#### Product Details

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**Clone:** RTK2118  
**Application:** Flow Cytometry  
**Reactivity:** N/A  
**Format:** APC  
**Isotype:** Rat IgM  
**Antibody Type:** Monoclonal  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA  
**Protein Concentration:** 0.2 mg/mL  
**Storage&Handling:** Store the antibody undiluted at 2°C to 8°C.  
**Recommended Usage:** Use at concentrations comparable to those used for the target-specific antibody. APC has an excitation max at 650 nm and an emission max at 660 nm.  
**Excitation Laser:** Red Laser (633 nm)  
**Release Date:** Dec-25

#### Background Information

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Immunoglobulin M (IgM) is the largest antibody isotype and the first produced during an initial immune response. Structurally, it forms a pentamer of five immunoglobulin units, giving it a high molecular weight of about 900 kDa and up to ten antigen-binding sites, though not all can engage simultaneously. Because of its size, IgM remains primarily in the serum and is produced largely in the spleen. Rat IgM functions similarly, serving as an early, broad-acting antibody produced by rat B cells to recognize and neutralize pathogens. It is widely used in research—as a control reagent, in diagnostic assays, and in studies of infection and immunity. Various established laboratory methods exist for producing and purifying rat IgM, making it a valuable tool for advancing immunological understanding and supporting the development of new disease treatments