

Recombinant Human IgM Protein

Catalog No.: RPT0026

Sequence Information

Species **Gene ID**
Human 3507

Swiss Prot **Tags**
P01871-1 N-His

Synonyms

IGHM, Immunoglobulin heavy constant mu, IgM, Ig mu chain C region

Product Information

Source **Purification**
HEK293 cells ≥ 90% as determined by SDS-PAGE.

Calculated MW **Observed MW**
26.71 kDa 35–40 kDa

Endotoxin

< 0.01 EU/μg of the protein by LAL method

Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1–0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

IgM normally constitutes about 10% of serum immunoglobulins. IgM antibody is prominent in early immune responses to most antigens and predominates in certain antibody responses such as 'natural' blood group antibodies. IgM (with IgD) is the major immunoglobulin expressed on the surface of B cells. The gene for the mu constant region contains four domains separated by short intervening sequences. Class specific anti immunoglobulin antibodies are useful for: The characterization of malignant B cell proliferations. All but acute lymphocytic leukemias share either surface or intra cytoplasmic Ig with an isotypic restriction, which suggest the monoclonal nature of the cell population. Most of the chronic lymphocytic leukemias, non Hodgkin lymphomas and Burkitt's lymphoma bear surface IgM, whereas plasmocytes from Waldenström's disease bear intracytoplasmic IgM. The other isotypes are less frequently found. On the other hand multiple myelomas are usually of the IgG or IgA type. Characterization of plasma cells in inflammatory conditions: Plasma cell typing can be of use for the classification of intestinal inflammatory conditions such as inflammatory bowel disease and allergic conditions. In the latter a specific increase in the number of IgE plasma cells can be demonstrated.

Basic Information

Description

Recombinant Human IgM Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln218-Tyr453) of Human IgM (Accession #P01871-1) fused with a His tag at the N-terminus.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

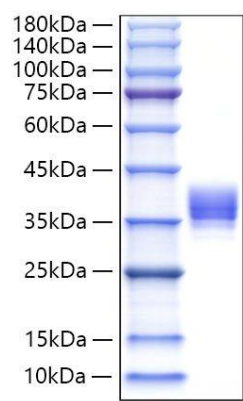
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Validation Data



Recombinant Human IgM Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.