

Product datasheet

Native Human IgM mu chain (plasma) ab91106

1 Image

Description

Product name	Native Human IgM mu chain (plasma)
Purity	> 95 % SDS-PAGE. IgM (mu chain) is purified by reducing the disulfide bond connecting it to the IgM kappa and lambda light chains.
Expression system	Native
Protein length	Full length protein
Animal free	No
Nature	Native
Species	Human
Predicted molecular weight	75 kDa
Additional sequence information	Purified Native Human IgM-mu-chain is from Human Plasma.
Description	Native Human IgM protein

Specifications

Our **Abpromise guarantee** covers the use of **ab91106** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilized
Additional notes	Protein Determination: Extinction Coefficient (E) 0.1% at 280nm, 1 cm pathway = 1.33. Prepared from plasma shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests. No reaction by IEP to antisera to kappa or lambda.

IgM heavy chain (mu chain) consists of 576 amino acids; there are five mu chains in each IgM molecule. IgM heavy chain is purified by reducing the disulfide bond connecting it to the IgM kappa and lambda light chains. IgM mu chain is more highly conserved across different species than is the heavy chain of IgG or IgA.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C.
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Constituent: 6% Acetic acid

Reconstitution

Reconstitute with 1.0 M acetic acid to the prelyophilization volume. Dilutions must be made in Acetic Acid.

General Info

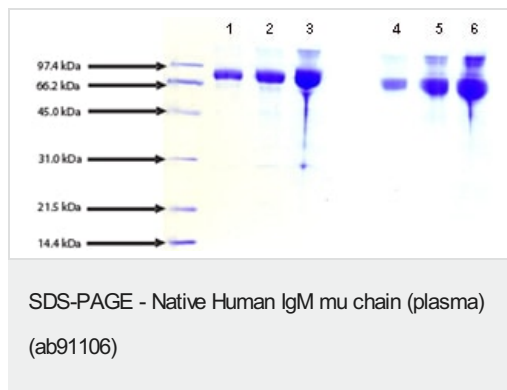
Relevance

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.

Cellular localization

Isoform 1: Secreted. During differentiation, B lymphocytes switch from expression of membrane bound IgM to secretion of IgM. Isoform 2: Cell membrane; Single pass type I membrane protein.

Images



SDS-PAGE: 12% Tris HCl gel

Lane 1. 5 µg IgM (reduced/heated)

Lane 2. 10 µg IgM (reduced/heated)

Lane 2. 20 µg IgM (reduced/heated)

Lane 3. 5 µg IgM (non-reduced/no heat)

Lane 4. 10 µg IgM (non-reduced/no heat)

Lane 5. 20 µg IgM (non-reduced/no heat)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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