

Datasheet for 009-0107

Human IgM (myeloma)**Overview**

Description:	Human IgM (myeloma) Whole Molecule (BULK ORDER) - 009-0107
Item No.:	009-0107
Size:	2 mg
Applications:	SDS-PAGE, Other
Origin:	Human

Product Details

Background:	Immunoglobulin M is the largest antibody isotype and the first to be secreted against an initial exposure to antigen. IgM is predominantly produced in the spleen. Formed from covalently linking 5 immunoglobulins together, the approximate molecular weight of IgM is 900kDa and possesses 10 binding sites (though due to the size of most antigens, not all sites are capable of binding at once). Due to this large size, IgM is typically isolated to the serum.
Synonyms:	Human immunoglobulin M, Human IgM (myeloma) whole molecule, Human IgM whole molecule, Hu IgM WM
Species of Origin:	Human
Format:	IgM
Type:	Native Protein

Target Details

Purity/Specificity:	Human IgM (myeloma) whole molecule was prepared from human serum by a multi-step process which includes delipidation, selective precipitation and tandem molecular sieve chromatography followed by extensive dialysis against the buffer stated above. Human IgM (myeloma) whole molecule was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Human Serum and anti-Human IgM (μ chain specific). No reaction was observed against anti-Human IgG F(c). Some light chain cross-reactivity will occur with anti-Human IgG.
Relevant Links:	009-0107 SDS

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	Other (Based on references)
Application Note:	Human IgM whole molecule has been tested in SDS-Page and can be used as a control or standard in indirect trapping ELISA for quantitation of antigen in serum using a standard curve, for immunoprecipitation and for western blotting.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
IHC:	User Optimized
WB:	User Optimized

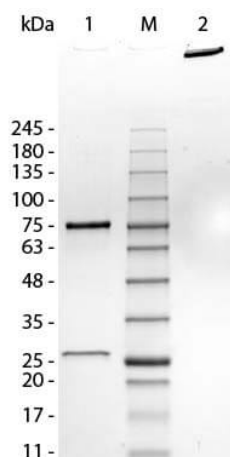
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	2.25 mg/mL by UV absorbance at 280 nm
Buffer:	0.1 M Tris Chloride, 0.5 M Sodium Chloride, pH 8.0
Preservative:	0.1% (w/v) Sodium Azide

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. Human IgM (myeloma) whole molecule is stable 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



SDS-PAGE

SDS-PAGE of Human IgM Whole Molecule. Lane 1: Human IgM, Reduced. M: Opal Pre-stained Marker (MB-210-0500). Lane 2: Human IgM, Non-Reduced. Load: 1.0 µg per lane. Predicted/Observed size - Non-Reduced: 900 kDa, Reduced - 75, 25 kDa.

References

- Kawakami R et al. A stromal platform for robust expansion of functional IL-10-producing B cells for immune regulation. *JCI Insight*. (2026)
- Winkelhake JL et al. Human monoclonal antibodies to glycolipid A that exhibit complement species-specific effector functions. *J Infect Dis*. (1992)

Disclaimer

No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled Biosafety in Microbiological and Biomedical Laboratories for potentially infectious human serum, blood specimens or proteins derived from same. Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits.

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