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Datasheet for 012-0107

Rat IgM

Overview

Description:	Rat IgM Whole Molecule - 012-0107
Item No.:	012-0107
Size:	1 mg
Applications:	SDS-PAGE
Origin:	Rat

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:	Rat Immunoglobulin M
Species of Origin:	Rat
Format:	IgM
Type:	Native Protein

Target Details

Purity/Specificity:	Rat IgM whole molecule was prepared from normal 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. Rat IgM whole molecule assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Rat Serum and anti-Rat IgM (μ chain specific). No reaction was observed against anti-Rat IgG F(c). Some light chain cross-reactivity will occur with anti-Rat IgG.

Application Details

Tested Applications:	SDS-PAGE

Application Note:	Rat IgM whole molecule has been tested in SDS-Page and can be utilized as a control or standard reagent in Western Blotting and ELISA experiments.
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

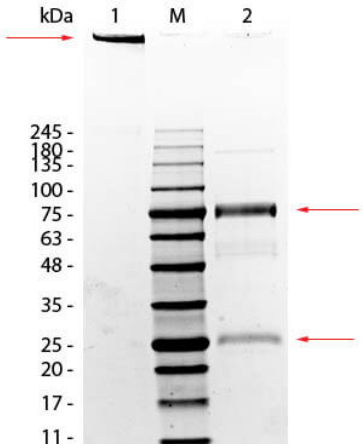
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.1 M Tris Chloride, 0.5 M Sodium Chloride, pH 8.0
Preservative:	0.01% (w/v) Sodium Azide

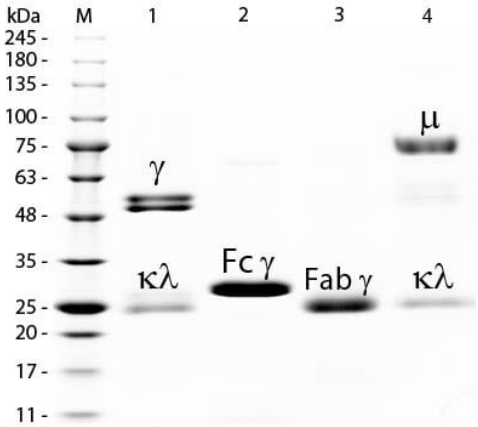
Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. Rat IgM 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 Rat IgM Whole Molecule. Lane 1: Rat IgM, Non-Reduced. Lane 2: Rat IgM, Reduced. Load: 1.0 µg per lane. Predicted/Observed size-Predicted/Observed size - Non-Reduced: 900 kDa (Pentamer), 900 kDa (Molecule larger than can pass through gel), Reduced: 78 and 25 kDa, 78 and 25 kDa.



SDS-PAGE
SDS-PAGE of Rat IgG F(c) Fragment Rhodamine Conjugated (p/n 012-0003). Lane M: 3 µL Opal Prestained Marker (p/n MB-210-0500). Lane 1: Reduced Rat IgG Whole Molecule (p/n 012-0102). Lane 2: Reduced Rat IgG F(c) Fragment Rhodamine Conjugated (p/n 012-0003). Lane 3: Reduced Rat IgG Fab Fragment (p/n 012-0105). Lane 4: Reduced Rat IgM Whole Molecule (p/n 012-0107). Load: 1 µg of IgG, F(c), Fab; 1.5 µg of IgM. Predicted/Observed size: IgG at 55 and 25 kDa; F(c) at 25 kDa; Fab at 25 kDa; IgM at 78 and 25 kDa. Observed F(c) Fragment migrates slightly higher.

References

- Rapti K et al. Neutralizing antibodies against AAV serotypes 1, 2, 6, and 9 in sera of commonly used animal models. *Mol Ther.* (2012)

Disclaimer

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