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Datasheet for 014-0107

Swine IgM

Overview

Description:	Swine IgM Whole Molecule - 014-0107
Item No.:	014-0107
Size:	1 mg
Applications:	SDS-PAGE, ELISA
Origin:	Swine

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:	Swine immunoglobulin M, Pig IgM
Species of Origin:	Swine
Format:	IgM
Type:	Native Protein

Target Details

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

Application Details

Tested Applications:	SDS-PAGE

Suggested Applications:	ELISA (Based on references)
Application Note:	Swine IgM whole molecule has been tested by 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

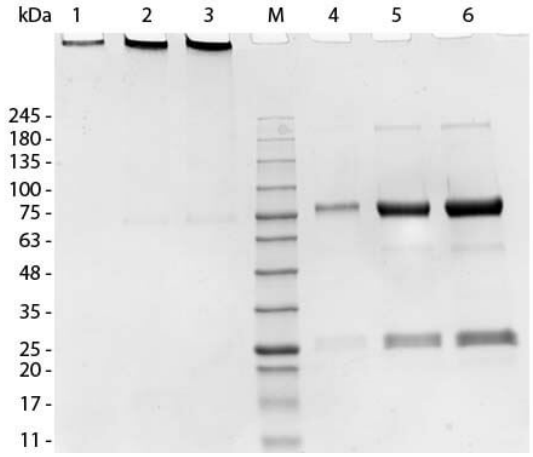
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 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. Swine 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 Swine IgM Whole Molecule. Lane 1: Swine IgM, 1.0 µg, Non-reduced. Lane 2: Swine IgM, 5.0 µg, Non-reduced. Lane 3: Swine IgM, 10.0 µg, Non-reduced. M: Opal Pre-stained Marker (MB-210-0500). Lane 4: Swine IgM, 1.0 µg, Reduced. Lane 5: Swine IgM, 5.0 µg, Reduced. Lane 6: Swine IgM, 10.0 µg, Reduced. Predicted/Observed size - Non-Reduced: 900 kDa, Reduced - 75, 25 kDa.

References

- Seidel AM et al. Porcine non-conventional B-1-like cells are a potent source of Streptococcus suis-binding IgM. *Front Immunol.* (2024)

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