

Datasheet for 009-0106-0001

Human IgA

Overview

Description:	Human IgA Whole Molecule - 009-0106-0001
Item No.:	009-0106-0001
Size:	1 mg
Applications:	SDS-PAGE, WB
Origin:	Human

Product Details

Background:	Immunoglobulin A is the primary responder in mucosal immunity, and comprises close to 75% of the total immunoglobulin produced. IgA can also be secreted and is protected from degradation by many proteolytic enzymes (which allows it to be secreted along the gastrointestinal tract). Immunoglobulin A only weakly activates the complement system and is not readily opsonized.
Synonyms:	Human Immunoglobulin A
Species of Origin:	Human
Format:	IgA
Type:	Native Protein

Target Details

Purity/Specificity:	Human IgA 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 IgA whole molecule was assayed by immunoelectrophoresis resulted in a single precipitin arc against anti-Human Serum and anti-Human IgA (a 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:	• 009-0106 SDS

Application Details

Tested Applications:	SDS-PAGE
Suggested Applications:	WB (Based on references)
Application Note:	Human IgA whole molecule has been tested in SDS-Page and Western blot and can be utilized as a control or standard reagent in SDS, 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
Other:	User Optimized

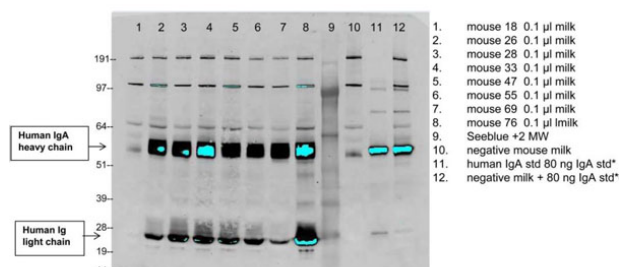
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

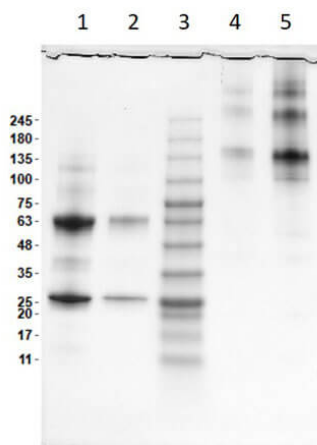
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable 4° C as an undiluted liquid. Dilute only prior to immediate use. For extended storage mix with an equal volume of glycerol, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing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

Images



Western Blot

Identification of b12A2 antibody secreted in the milk of transgenic mice using western blot. Lanes 1–8 are milk samples collected from individual mice; lane 9 is the molecular weight marker; lane 10 is milk from a negative control mouse; lane 11 is a known concentration of standard human IgA (p/n 009-0106) at 80 ng/lane; lane 12 is negative control mouse milk spiked with standard human IgA. 80 ng of IgA standard is equivalent to 0.8 mg/ml in milk when loaded at 0.1 μ l of milk per lane. Reactive bands were detected using biotinylated goat anti-human IgA alpha chain (p/n 609-1606) followed by HRP conjugated streptavidin-IR800CW. Figure 1. PMID: 23269241.



SDS-PAGE

SDS-PAGE of Human IgA Whole Molecule. Lane 1: Human IgA Whole Molecule, Reduced [5.0 μ g]. Lane 2: Human IgA Whole Molecule, Reduced [1.0 μ g]. Lane 3: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 4: Human IgA Whole Molecule, Non-Reduced [1.0 μ g]. Lane 5: Human IgA Whole Molecule, Non-Reduced [5.0 μ g]. 4-20% Gel, Coomassie Blue Stained. Expected MW: ~160kDa Non-Reduced, ~55kDa, and 23kDa Reduced. Additional bands: monomer, dimer and trimer.

References

- Yu X et al. Neutralization of HIV by milk expressed antibody. *J Acquir Immune Defic Syndr*. (2013)

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.

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.