

Datasheet for 025-0102

Llama IgG Whole Molecule

Overview

Description:	Llama IgG Whole Molecule - 025-0102
Item No.:	025-0102
Size:	0.5 mg
Applications:	SDS-PAGE
Origin:	Llama

Product Details

Background:	Comparative studies of old world camelids (<i>Camelus bactrianus</i> and <i>Camelus dromedarius</i>) and new world camelids (<i>Lama pacos</i>, <i>Lama glama</i> and <i>Lama vicugna</i>) have shown that heavy-chain-only immunoglobulins represent between 35% - 70% of total IgG in the sera of all species. Such antibodies are homodimers of heavy chains that lack the CH1 domain of conventional antibodies and therefore do not interact with light chains, exhibiting a lower molecular weight ~100 kDa. In llama and all other species of camelids, these heavy-chain-only immunoglobulins belong to the IgG2 and IgG3 subclasses of gamma chain antibodies. All gamma chain camelid antibodies exhibiting the more conventional assembly of two light and two heavy chains with molecular weight ~150 kDa, belong to the IgG1 subclass.
Synonyms:	Immunoglobulin G from Llama, IgG from Llama, Llama IgG, Llama IgG Whole Molecule
Species of Origin:	Llama
Format:	IgG
Type:	Native Protein

Target Details

Purity/Specificity:	Llama IgG has been prepared from llama serum by multiple chromatography steps using a combination of protein A and protein G chromatography. This product contains equal amounts of IgG1, IgG2 and IgG3. Coomassie stained SDS-PAGE of non-reduced llama IgG1 shows a band of ~150 kDa whereas the reduced form exhibits ~55 kDa (heavy chain) and ~25 kDa (light chain); non-reduced llama IgG2 shows a band of ~100 kDa whereas the reduced form exhibits ~46 kDa; non-reduced llama IgG3 shows a band of ~100 kDa whereas the reduced form exhibits ~43 kDa.
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Application Details

Tested Applications:	SDS-PAGE
Application Note:	Llama IgG whole molecule has been tested by SDS-Page and can be utilized as a control or standard reagent in SDS, Western Blotting, flow cytometry, and ELISA experiments. Specific conditions for reactivity should be optimized by the end user. Llama IgG whole molecule buffered in 0.015 M Potassium Phosphate, 0.01125 M Sodium Chloride, pH 7.2 and 25% glycerol.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	User Optimized
FC:	User Optimized
WB:	User Optimized

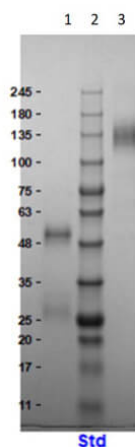
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.40 mg/mL by BCA assay
Buffer:	See application note.
Preservative:	0.01% (w/v) Sodium Azide

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



SDS-PAGE

SDS PAGE Results of Llama IgG Whole Molecule. Lane 1: Llama IgG Reduced [1.0µg]. Lane 2: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 3: Llama IgG Non-Reduced [1.0µg]. 4-20% Gel, Coomassie Stained.

Disclaimer

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.