

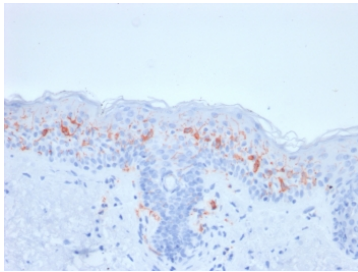
Recombinant CD1a Antibody / CD1 alpha [clone rC1A/711] (V3541)

Catalog No.	Formulation	Size
V3541-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3541-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3541SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3541IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

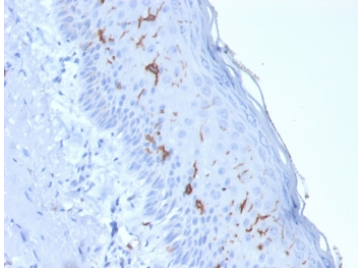
Recombinant **MOUSE MONOCLONAL**

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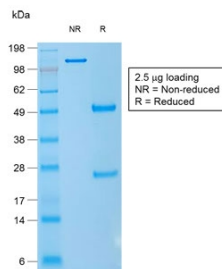
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rC1A/711
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P06126
Gene ID	909
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This recombinant CD1a antibody is available for research use only.



IHC testing of FFPE human skin with recombinant CD1a antibody (clone rC1A/711).
Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min.

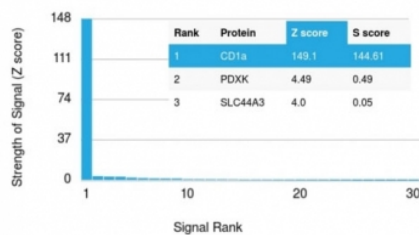


IHC testing of FFPE human skin with recombinant CD1a antibody (clone rC1A/711).
Required HIER: boil tissue sections in 10mM citrate buffer, pH 6, for 10-20 min.



SDS-PAGE analysis of purified, BSA-free recombinant CD1a antibody (clone rC1A/711) as confirmation of integrity and purity.

Human Protein Microarray Specificity Validation



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant CD1a antibody (clone rC1A/711). These results demonstrate the foremost specificity of the rC1A/711 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

Recombinant CD1a antibody is a valuable reagent for investigating CD1a, a member of the CD1 family of antigen presenting molecules. CD1a is expressed on cortical thymocytes, dendritic cells, and Langerhans cells of the skin. Unlike classical MHC molecules, CD1a presents lipid and glycolipid antigens to T cells, broadening the range of immune recognition. This specialized role makes CD1a a critical component of host defense and immune regulation.

Structurally, CD1a consists of a heavy chain associated with beta-2 microglobulin. Its antigen binding groove is adapted to accommodate lipid based antigens, which are presented to subsets of T cells including natural killer T cells. CD1a expression in Langerhans cells highlights its role in skin immunity, where it helps mediate responses to microbial lipids and environmental antigens.

The Recombinant CD1a antibody clone rC1A/711 provides consistent detection of this antigen presenting molecule. Recombinant production ensures uniformity between lots and dependable performance across studies. Clone rC1A/711 has been widely applied to research involving dendritic cell biology, thymocyte development, and immune responses in the skin. Its specificity makes it suitable for both experimental research and pathology.

CD1a has clinical relevance as a diagnostic marker for Langerhans cell histiocytosis and other dendritic cell derived tumors. Research using clone rC1A/711 has clarified how CD1a contributes to antigen presentation and immune responses in both healthy and diseased states. Its detection supports studies in dermatology, immunology, and oncology, reflecting the broad significance of this protein.

NSJ Bioreagents provides this Recombinant CD1a antibody to support studies of immune regulation and antigen presentation. The protein is also described by alternate names such as cluster of differentiation 1a antibody, lipid antigen presenting molecule antibody, cortical thymocyte antigen antibody, and dendritic cell antigen presenting receptor antibody, which reflect the varied nomenclature used in scientific contexts.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the recombinant CD1a antibody to be titrated up or down for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Full length human CD1a protein was used as the immunogen for this recombinant CD1a antibody.

Storage

Store the recombinant CD1a antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

References (4)