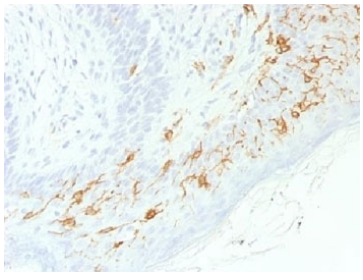
Recombinant CD1a Antibody / Rabbit Monoclonal [clone C1A/1506R] (V7231)

Catalog No.	Formulation	Size
V7231-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7231-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7231SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7231IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

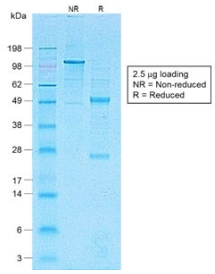
Recombinant RABBIT MONOCLONAL

Bulk quote request

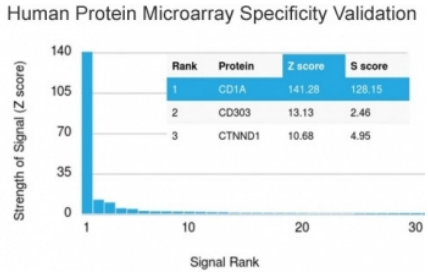
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	C1A/1506R
Purity	Protein A affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	909
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (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 C1A/1506R). 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 C1A/1506R) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant CD1a antibody (clone C1A/1506R). These results demonstrate the foremost specificity of the C1A/1506R 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 detects CD1a, a transmembrane glycoprotein encoded by the CD1A gene. CD1a belongs to the CD1 family of antigen-presenting molecules, which structurally resemble MHC class I but present lipid and glycolipid antigens instead of peptides. CD1a is expressed primarily on cortical thymocytes, Langerhans cells, and subsets of dendritic cells, where it participates in immune surveillance and T-cell activation. Because of its specialized role in presenting self and microbial lipids, Recombinant CD1a antibody is widely used in immunology, dermatology, and oncology research.

CD1a is a 43Ã¢Â€Â“49 kDa glycoprotein with an extracellular antigen-binding groove, a single transmembrane domain, and a cytoplasmic tail. Its antigen-binding pocket accommodates diverse lipid structures, which it displays to T cells via the T-cell receptor. This mechanism allows CD1a to contribute to the detection of microbial lipids, including those from Mycobacterium tuberculosis, as well as self-lipids that may drive inflammatory responses. Its expression in the skin by Langerhans cells links CD1a to cutaneous immunity and dermatological disease.

The Recombinant CD1a antibody clone C1A/1506R provides specific and reproducible detection of this molecule. Recombinant technology ensures consistent lot-to-lot performance, reducing variability that can affect long-term projects. Clone C1A/1506R has been used in peer-reviewed studies investigating Langerhans cell biology, lipid antigen presentation, and diagnostic pathology. Its reliability makes it suitable for both basic and translational research applications.

Research using clone C1A/1506R has shown how CD1a expression helps define dendritic cell subsets and provides diagnostic utility in identifying Langerhans cell histiocytosis and certain thymic tumors. In immunology, this antibody supports studies of lipid antigen recognition and T-cell activation, areas of growing importance in infectious disease and autoimmune research. By detecting CD1a, researchers can better understand how lipid antigens contribute to host defense, tolerance, and pathology.

NSJ Bioreagents supplies this Recombinant CD1a antibody to support immunology, oncology, and dermatology. Alternate names include CD1A molecule antibody, cluster of differentiation 1a antibody, lipid antigen presenting molecule antibody, Langerhans cell marker antibody, and cortical thymocyte marker antibody.

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 titered 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)