abcam

ab270744

Anti-Lambda Light chain antibody [1-155-2] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	1-155-2
Purification technique	Affinity purification Protein A

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1.105 µg/mL
Notes	-

Target data

See full target information IGLV1-51

Function	V region of the variable domain of immunoglobulin light chains that participates in the antigen recognition (PubMed:24600447). Immunoglobulins, also known as antibodies, are membrane-bound or secreted glycoproteins produced by B lymphocytes. In the recognition phase of humoral immunity, the membrane-bound immunoglobulins serve as receptors which, upon binding of a specific antigen, trigger the clonal expansion and differentiation of B lymphocytes into immunoglobulins-secreting plasma cells. Secreted immunoglobulins mediate the effector phase of humoral immunity, which results in the elimination of bound antigens (PubMed:20176268, PubMed:22158414). The antigen binding site is formed by the variable domain of one heavy chain, together with that of its associated light chain. Thus, each immunoglobulin has two antigen binding sites with remarkable affinity for a particular antigen. The variable domains are assembled by a process called V-(D)-J rearrangement and can then be subjected to somatic hypermutations which, after exposure to antigen and selection, allow affinity maturation for a particular antigen (PubMed:17576170, PubMed:20176268).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab270744 is the carrier-free version of ab235129.

Want a custom formulation?

This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Lambda Light Chain also known as lambda chain or lambda protein forms a part of immunoglobulins (antibodies). Its mass typically ranges between 22 to 24 kDa. This protein is expressed primarily in B cells. Specifically it pairs with heavy chains to form the complete antibody molecule. It participates in the antigen recognition process supporting the immune system's defense mechanisms.
Biological function summary	Lambda Light Chain participates in immunological functions by contributing to the antigen-binding site of antibodies. It exists as a part of the immunoglobulin complex. The lambda chain alongside heavy chains forms the variable part of antibodies allowing specificity in antigen recognition. Its variation leads to a diverse antibody repertoire which is important for recognizing a wide range of pathogens.
Pathways	Lambda Light Chain fits into pathways involving adaptive immune responses. It is important in antigen processing and presentation pathways. In this context it interacts with the heavy chains which together drive the specificity and efficiency of immune response pathways. It also associates with proteins like the major histocompatibility complex (MHC) which facilitates antigen presentation to T cells.
Associated diseases and disorders	Lambda Light Chain associates with multiple myeloma a cancer of plasma cells and light chain amyloidosis a disorder where light chains accumulate as amyloid fibrils in tissues. In these conditions proteins like immunoglobulin heavy chain and albumin often interact with or are affected by lambda chains providing insights into disease mechanisms and potential targets for therapeutic intervention.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

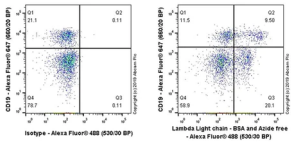
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - Anti-Lambda Light chain antibody [1-155-2] - BSA and Azide free (ab270744)

Lambda Light chain Flow Cytometry staining using mouse Anti-Lambda Light chain antibody

Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) (right) labeling Lambda Light chain with ab235129 at 1.105µg/ml compared with mouse monoclonal IgG Isotype Control (left). Goat anti-mouse IgG (Alexa Fluor® 488) (ab150113) at 1/2000 dilution was used as the secondary antibody.
Cells were stained with mouse IgG (Left) or ab235129 (Right). Then stained with anti-CD19 conjugated to Alexa Fluor® 647.

Gated on viable cells.

This data was developed using the same antibody clone in a different buffer formulkation containing PBS, glycerol, BSA and sodium azide (ab235129).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.