abcam

ab256420

Alexa Fluor® 488 Anti-Kappa light chain antibody [OX12]

Anti-Kappa light chain antibody [OX12] conjugated to Alexa Fluor® 488 - suitable for flow cytometry, and reacts with rat samples. Clone [OX12] is a mouse monoclonal antibody.

Design your panel with our interactive flow cytometry panel builder. Click here.

Key facts

Isotype	IgG2a
Host species	Mouse
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	OX12
Purification technique	Affinity purification
Light chain type	kappa
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Rat
Dilution info	1/500
Notes	-

Target data

See full target information Immunoglobulin kappa variable 1D-16

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Stable for 12 months at -20°C, Store in the dark

Notes

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Supplementary info

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

Activity summary	The kappa light chain alternatively known as Ig kappa chain is a component of immunoglobulins which are important for immune response. This protein has a molecular mass of roughly 25 kDa. It predominantly expresses in B lymphocytes where it pairs with heavy chains to form antibodies. Its expression is indicative of mature B cell functions serving as a marker for certain types of immune cells. The kappa light chain can also be detected outside of cells circulating in the blood and other bodily fluids.
Biological function summary	Kappa light chains are integral to the structure and function of antibodies. As part of the immunoglobulin molecule these chains contribute to antigen specificity by combining with heavy chains. Together they form the antigen-binding site. The kappa light chain is not part of a multiprotein complex; rather it directly participates in the antibody response. The presence of either kappa or lambda light chains can determine the particularities of antibody characteristics.
Pathways	Kappa light chains are elements of the immunological pathways notably the adaptive immune response. They interact with other proteins like immunoglobulin heavy chains to neutralize pathogens. The constant region of the kappa chain plays a role in determining the isotype of immunoglobulins which affects how antibodies mediate immune effector functions. Cross-linking of surface immunoglobulin by antigens can trigger B cell activation an essential step in the adaptive immune system.
Associated diseases and disorders	Kappa light chains associate closely with multiple myeloma and certain types of lymphomas. Overproduction of kappa light chains in these diseases results in high levels detectable in the serum or urine which can be used diagnostically as markers. Also dysregulation of kappa chains correlates with autoimmune disorders whereby the immune system incorrectly targets its tissues. In disorders like these the interplay between kappa and lambda chains often arises showing imbalance between the two as a sign of abnormal B cell activity.

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

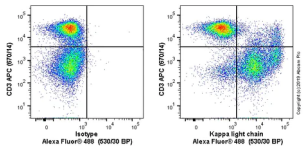
We do not recommend this combination. It is not covered by our product promise.

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 - Alexa Fluor® 488 Anti-Kappa light chain antibody [OX12] (ab256420)

Kappa light chain Flow Cytometry staining using mouse Anti-Kappa light chain antibody

Lewis rat splenocytes stained with ab256420 (right) or mouse IgG2aκ Alexa Fluor® 488 isotype (left). Lewis rat splenocytes were incubated for 30 min on ice in 1x PBS / 10 % rat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab256420) or mouse IgG2aκ Alexa Fluor® 488 isotype (1x 10^6 in 100 µl at 1 µg/ml (1/500)) for 30 min on ice. The cells were simultaneously stained with CD3.
Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable lymphocytes.

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