abcam

Product datasheet

HRP Anti-Kappa light chain antibody [EPR5367-8] ab202549

Recombinant RabMAb

5 Images

Overview

Product name	HRP Anti-Kappa light chain antibody [EPR5367-8]
Description	HRP Rabbit monoclonal [EPR5367-8] to Kappa light chain
Host species	Rabbit
Conjugation	HRP
Tested applications	**Suitable for:** IHC-P, WB, ELISA
Species reactivity	**Reacts with:** Human
Immunogen	Full length native protein (purified) corresponding to Human Kappa light chain. Database link: **P01834**
Positive control	WB: Human tonsil and plasma tissue lysates. IHC-P: normal human tonsil tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR5367-8
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab202549 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

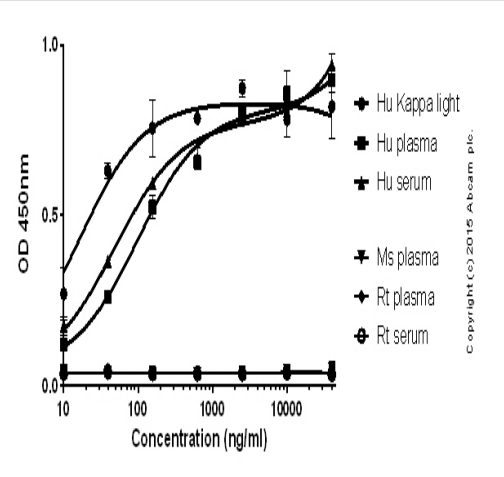
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. **ab199507** - Rabbit monoclonal IgG (HRP), is suitable for use an as isotype control with this antibody.
WB		1/50000. Detects a band of approximately 26 kDa (predicted molecular weight: 25 kDa).
ELISA		Use a concentration of 0.01 - 10 µg/ml.

Target

Relevance Immunoglobulins belong to a group of related glyco proteins which make up 20% of serum proteins. Antigens and immunoglobulins react to confer immunity to individuals. Immunoglobulins have similar structures of two identical heavy chains and two identical light chains. Both the heavy chains and the light chains are divided into constant and variable regions. The constant regions have the same amino acid sequences between all the immunoglobulin classes. The variable regions have approximately 110 amino acids with high sequence variability. The amino acid sequence of the heavy chain determines the class of an immunoglobulin. The five types of immunoglobulin heavy chains are known as: IgG, IgA, IgM, IgD, and IgE. IgG is divided into four subclasses, and IgA is divided into two subclasses. In serum IgA and IgG are monomers with a single 4 polypeptide unit; while, IgM is a pen tamer. IgA may also form polymers. Kappa light chain antibody can be used for the identification of leukemias, plasmacytomas and certain non Hodgkin's lymphomas. Kappa light chain contains one immunoglobulin like domain. The EU sequence has the INV allotypic marker, Ala 45 and Val 83. The ROY sequence has the INV allotypic marker, Ala 45 and Leu 83.

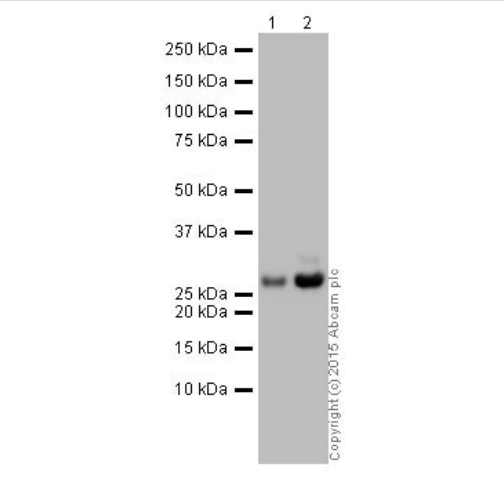
Cellular localization Cytoplasmic and Secreted

Images



ELISA - HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549)

Ab202549 was tested using a sandwich ELISA approach. The wells were coated with **ab195576** at 2µg/ml at 50µl/well overnight at 4°C, followed by a 5% BSA blocking step for 2h RT. Native Human Kappa Light Chain (Biorad) was then added starting at 40 µg/ml and plasma/serum at 1:200 and gradually diluted 1:4, 50µl/well for 2h. Ab202549 was then added at 1:10,000 dilution, 50µl/well for 2h.



Western blot - HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549)

All lanes : HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549) at 1/5000 dilution

Lane 1 : Tonsil (Human) Whole Cell Lysate - adult normal tissue
Lane 2 : Human Plasma Total Protein Lysate

Lysates/proteins at 10 µg per lane.

Developed using the ECL technique.

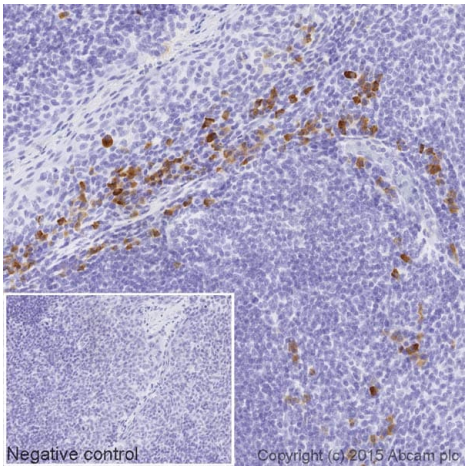
Performed under reducing conditions.

Predicted band size: 25 kDa
Observed band size: 26 kDa

Exposure time: 4 seconds

This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk before being incubated with ab202549 overnight at 4°C. Antibody binding

was visualised using ECL development solution **ab133406**.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549)

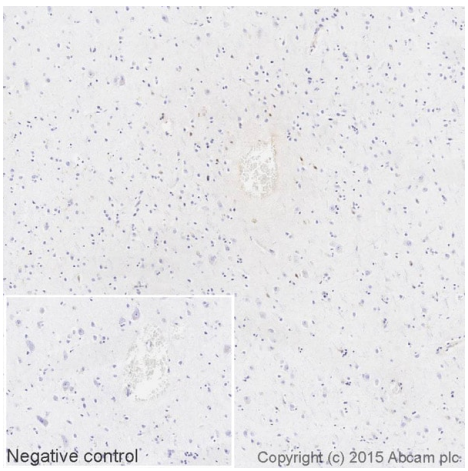
IHC image of human kappa light chain staining in a section of formalin-fixed paraffin-embedded normal human tonsil*, performed on a Leica Bond system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab202549, at 1/100 dilution, for 15 mins at room temperature and detected using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Staining corresponds to B cells expressing IgG commonly found in lymphoid follicles of human tonsil.

The inset background control image is taken from an identical assay without added antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549)

Negative IHC image of human kappa light chain staining in a section of formalin-fixed paraffin-embedded normal human cerebral cortex*, performed on a Leica Bond system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab202549, at 1/50 dilution, for 15 mins at room temperature and detected using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Staining corresponds to immunoglobulins found in serum. As expected, staining diminishes further into the brain tissue due to the action of the blood-brain barrier.

The inset background control image is taken from an identical assay without added antibody.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank,

HRP Anti-Kappa light chain antibody [EPR5367-8] (ab202549)

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