Product datasheet

Anti-Human IgG antibody [EPR4421] ab109489

Overview

Product name: Anti-Human IgG antibody [EPR4421]
Description: Rabbit monoclonal [EPR4421] to Human IgG
Host species: Rabbit
Specificity: ab109489 recognizes all four Human IgG isotypes (IgG1, IgG2, IgG3, and IgG4).
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Human
Immunogen: Synthetic peptide within Human Human IgG aa 150-250 (internal sequence). The exact sequence is proprietary.

General notes
- The 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.

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

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.
Stable for 12 months at -20°C.

Storage buffer
- pH: 7.20
- Preservative: 0.01% Sodium azide
- Constituents: 40% Glycerol, 59% PBS, 0.05% BSA

Purity
- Protein A purified

Clonality
- Monoclonal

Clone number
- EPR4421

Isotype
- IgG

Applications

Our Abpromise guarantee covers the use of ab109489 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000 - 1/10000. Detects a band of approximately 52-58 kDa.</td>
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<tr>
<td>IHC-P</td>
<td>1/300 - 1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols.</td>
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Target

Relevance
- IgG is a monomeric immunoglobulin, built of two heavy chains gamma and two light chains. Each molecule has two antigen binding sites. This is the most abundant immunoglobulin and is approximately equally distributed in blood and in tissue liquids, constituting 75% of serum immunoglobulins in humans. This is the only isotype that can pass through the human placenta, thereby providing protection to the fetus in its first weeks of life before its own immune system has developed. It can bind to many kinds of pathogens, for example viruses, bacteria, and fungi, and protects the body against them by complement activation (classic pathway), opsonization for phagocytosis and neutralisation of their toxins. There are 4 subclasses: IgG1 (66%), IgG2 (23%), IgG3 (7%) and IgG4 (4%).

Cellular localization
- Cell Membrane and Secreted

Images
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labeling Human IgG with purified ab109489 at 1/300. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

**All lanes**: Anti-Human IgG antibody [EPR4421] (ab109489) at 1/20000 dilution (purified)

**Lane 1**: Human fetal thymus tissue lysate  
**Lane 2**: Human fetal tonsil tissue lysate  
**Lane 3**: Human fetal spleen tissue lysate

Lysates/proteins at 20 µg per lane.

**Secondary**  
**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

**Observed band size**: 50 kDa  
*why is the actual band size different from the predicted?*

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes: Anti-Human IgG antibody [EPR4421] (ab109489) at 1/1000 dilution (unpurified)

Lane 1: IgG2 recombinant protein (10 ng protein loaded)
Lane 2: IgG1 recombinant protein (10 ng protein loaded)
Lane 3: IgG3 recombinant protein (10 ng protein loaded)
Lane 4: IgG4 recombinant protein (10 ng protein loaded)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human stomach tissue labelling IgG with unpurified ab109489 at a dilution of 1/500.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Anti-Human IgG antibody [EPR4421] (ab109489) at 1/1000 dilution (purified) + IgG3 recombinant protein at 0.01 µg

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Observed band size: 50 kDa why is the actual band size different from the predicted?

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes: Anti-Human IgG antibody [EPR4421] (ab109489) at 1/5000 dilution (purified)

Lane 1: IgG1 recombinant protein
Lane 2: IgG2 recombinant protein
Lane 3: IgG4 recombinant protein

Lysates/proteins at 0.01 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000 dilution

Observed band size: 50 kDa why is the actual band size different from the predicted?

Blocking and dilution buffer: 5% NFDM/TBST.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human tonsil tissue labelling IgG with unpurified ab109489 at a dilution of 1/500.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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