**Product datasheet**

**Anti-Granzyme B antibody ab4059**

Rating: ★★★☆☆ 20 Abreviews  65 References  4 Images

**Overview**

**Product name**  Anti-Granzyme B antibody  
**Description**  Rabbit polyclonal to Granzyme B  
**Host species**  Rabbit  
**Specificity**  The immunogen used for this product shares 94% homology with Granzyme H. Cross-reactivity with this protein has not been confirmed experimentally.

**Tested applications**  Suitable for: ICC/IF, IHC-P, Flow Cyt, IHC-FoFr

**Species reactivity**  Reacts with: Mouse, Rat, Human  
**Predicted to work with:** Pig, Common marmoset  

**Immunogen**  Synthetic peptide within Human Granzyme B aa 1-100. The exact sequence is proprietary.  
**Database link:** P10144

**Positive control**  IHC-P: Rat spinal cord tissue. Human tonsil tissue.

**General notes**  This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

**Properties**

**Form**  Liquid

**Storage instructions**  Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Storage buffer**  pH: 7.60  
Preservative: 0.1% Sodium azide  
Constituents: PBS, 1% BSA

**Purity**  Immunogen affinity purified

**Clonality**  Polyclonal

**Isotype**  IgG

**Applications**

Our Abpromise guarantee covers the use of ab4059 in the following tested applications.

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

This enzyme is necessary for target cell lysis in cell-mediated immune responses. It cleaves after Asp. Seems to be linked to an activation cascade of caspases (aspartate-specific cysteine proteases) responsible for apoptosis execution. Cleaves caspase-3, -7, -9 and 10 to give rise to active enzymes mediating apoptosis.

**Sequence similarities**

Belongs to the peptidase S1 family. Granzyme subfamily. Contains 1 peptidase S1 domain.

**Cellular localization**

Cytoplasmic granule. Cytoplasmic granules of cytolytic T-lymphocytes and natural killer cells.

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 19124737</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐</td>
<td>1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.</td>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 22373353 ab171870 - Rabbit polyclonal IgG, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-FoFr</td>
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<td>Use at an assay dependent concentration.</td>
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### Target

**Images**

Cytotoxic effector cells and regulatory T cells in GBM xenografts growing in immunocompetent rats.

Granzyme B-positive cytotoxic cells (ab4059 at a 1/75 dilution) in a GBM xenograft with rejection. Asterisks mark tissue lyzed by effector cells.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Granzyme B antibody (ab4059)

Huszthy et al PLoS One. 2015 Aug 20;10(8):e0136089. doi: 10.1371/journal.pone.0136089. eCollection 2015. Fig 5. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/
Immunohistochemical analysis of lung tissue from patients with idiopathic pulmonary fibrosis, staining Granzyme B with ab4059.

Tissue was fixed using paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 5% donkey serum in PBS containing 3% BSA for 45 minutes. Slides were incubated overnight at 4°C with primary antibody (1/100 in blocking solution). An AlexaFlour®568-conjugated goat anti-rabbit IgG was used as the secondary antibody.

ab4059 at 1/20 dilution staining rat spinal cord tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). The tissue was formaldehyde fixed and blocked with serum prior to incubation with the antibody for 2 hours. A biotinylated goat anti-rabbit IgG was used as the secondary.
Human tonsil tissue stained with anti-Granzyme B antibody (ab4059).

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

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