

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse Granzyme B in ELISAs and Western blots. In sandwich immunoassays, less than 1% cross-reactivity with recombinant human (rh) Granzyme A, rhGranzyme B, recombinant mouse (rm) Granzyme D, rmGranzyme G, and rhGranzyme H is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Granzyme B Lys17-Ser247 Accession # P04187
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

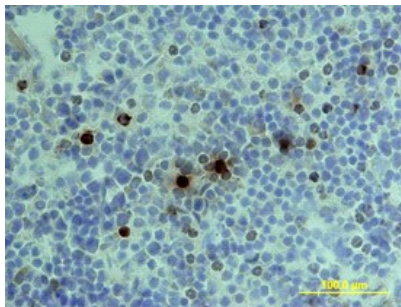
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse Granzyme B (Catalog # 1865-SE)
<b>Immunocytochemistry</b>	5-15 µg/mL	Immersion fixed mouse peripheral blood mononuclear cells treated with PMA and calcium ionomycin
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Mouse Granzyme B Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Mouse Granzyme B Antibody (Catalog # AF1865)
<b>ELISA Detection Standard</b>	0.1-0.4 µg/mL	Mouse Granzyme B Biotinylated Antibody (Catalog # BAF1865) Recombinant Mouse Granzyme B (Catalog # 1865-SE)

## DATA

### Immunohistochemistry



**Granzyme B in Mouse Spleen.**  
Granzyme B was detected in immersion fixed frozen sections of mouse spleen using Goat Anti-Mouse Granzyme B Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF1865) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Granzyme B is a member of the granzyme family of the serine proteases found specifically in the cytotoxic granules of cytotoxic T lymphocytes (CTL) and natural killer (NK) cells (1, 2). Granzyme B plays an essential role in granule-mediated apoptosis and may have additional roles in rheumatoid arthritis and in bacterial and viral infections (3). It activates various caspases and cleaves proteins such as aggrecan (3). Mouse Granzyme B is synthesized as a precursor (247 residues) with a signal and a pro peptide (residues 1-20) and a mature chain (residues 21-247) (4, 5). The recombinant mouse Granzyme B consisting of residues 17 to 247 was expressed and purified. After activation with cathepsin C, it cleaves a thioester substrate.

### References:

1. Kam, C.-M. *et al.* (2000) *Biochim. Biophys. Acta* **1477**:307.
2. Smyth, M.J. *et al.* (1996) *J. Leukoc. Biol.* **60**:555.
3. Froelich, C.J. (2004) in *Handbook of Proteolytic Enzymes*, Barrett, A.J. *et al.* eds. p. 1549.
4. Lobe, C.G. *et al.* (1986) *Science* **232**:858.
5. Brunet, J.F. *et al.* (1986) *Nature* **322**:268.