

# PRODUCT INFORMATION



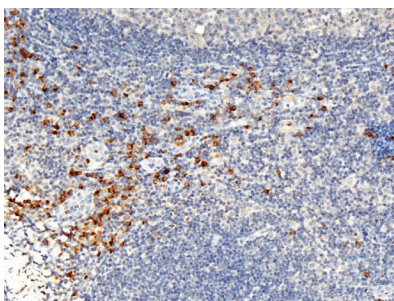
## Granzyme B Monoclonal Antibody (Clone 2F5F2D10)

Item No. 37067

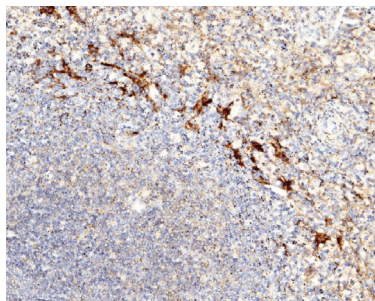
### Overview and Properties

<b>Contents:</b>	This vial contains 50, 100, or 200 µl of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	CTLA-1, Cytotoxic Serine Protease B, Cytotoxic T-lymphocyte Proteinase 2, Fragmentin-2, Granzyme-2, GrB
<b>Immunogen:</b>	Recombinant human granzyme B
<b>Species Reactivity:</b>	(+) Human; other species not tested
<b>Form:</b>	Liquid
<b>Storage:</b>	-80°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	0.2 µm filtered solution in PBS
<b>Clone:</b>	2F5F2D10
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2b
<b>Applications:</b>	ELISA and Immunohistochemistry (IHC); the recommended starting dilution is 1:1,000-1:2,000 for ELISA and 1:50-1:200 for IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

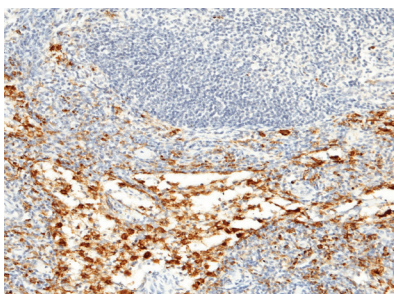
### Images



Immunohistochemical staining of formalin-fixed and paraffin-embedded human Granzyme B in human tonsil with Granzyme B Monoclonal Antibody (Clone 2F5F2D10) at a dilution of 1:60.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human Granzyme B in human spleen with Granzyme B Monoclonal Antibody (Clone 2F5F2D10) at a dilution of 1:60.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human Granzyme B in human lymph node with Granzyme B Monoclonal Antibody (Clone 2F5F2D10) at a dilution of 1:60.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Granzyme B is a serine protease that is involved in cytotoxic T lymphocyte- and natural killer cell-induced cell death.<sup>1,2</sup> It localizes to cytoplasmic granules prior to release into the immunological synapse formed with a target cell.<sup>1,3</sup> Granzyme B cleaves its substrates after an aspartate residue and targets caspase-3, caspase-8, and gasdermin E (GSDME), among others.<sup>1,2</sup> It is involved in caspase-dependent and -independent apoptosis, necrosis, DNA fragmentation, pyroptosis, viral infection, and antitumor immunity.<sup>1,2,4</sup> Knockout of the gene encoding granzyme B, *GZMB*, reduces disease severity in a mouse model of epidermolysis bullosa acquisita, an autoimmune disease characterized by blistering of the skin.<sup>5</sup> Serum and synovial levels of granzyme B are elevated in patients with rheumatoid arthritis.<sup>6</sup> Cayman's Granzyme B Monoclonal Antibody (Clone 2F5F2D10) can be used for ELISA and immunohistochemistry (IHC) applications.

## References

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2. Tsuchiya, K. Switching from apoptosis to pyroptosis: Gasdermin-elicited inflammation and antitumor immunity. *Int. J. Mol. Sci.* **22(1)**, 426 (2021).
3. Pinkoski, M.J., Hobman, M., Heibein, J.A., *et al.* Entry and trafficking of granzyme B in target cells during granzyme B-perforin-mediated apoptosis. *Blood* **92(3)**, 1044-1054 (1998).
4. Trapani, J.A. and Sutton, V.R. Granzyme B: Pro-apoptotic, antiviral and antitumor functions. *Curr. Opin. Immunol.* **15(5)**, 533-543 (2003).
5. Hiroyasu, S., Zeglinski, M.R., Zhao, H., *et al.* Granzyme B inhibition reduces disease severity in autoimmune blistering diseases. *Nat. Commun.* **12(1)**, 302 (2021).
6. Goldbach-Mansky, R., Suson, S., Wesley, R.A., *et al.* Raised granzyme B levels are associated with erosions in patients with early rheumatoid factor positive rheumatoid arthritis. *Ann. Rheum. Dis.* **64(5)**, 715-721 (2005).

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