# Anti-Granzyme B Antibody [PSH14-66]

Product Type: Species reactivity: Applications: Molecular Wt: Clone number:	Recombinant Rabbit monoclonal IgG, primary antibodies Human, Mouse WB, IHC-P Predicted band size: 28 kDa PSH14-66
Description:	Granzyme B (GrB) is one of the serine protease granzymes most commonly found in the granules of natural killer cells (NK cells) and cytotoxic T cells. It is secreted by these cells along with the pore forming protein perforin to mediate apoptosis in target cells. Granzyme B has also been found to be produced by a wide range of non-cytotoxic cells ranging from basophils and mast cells to smooth muscle cells. The secondary functions of granzyme B are also numerous. Granzyme B has shown to be involved in inducing inflammation by stimulating cytokine release and is also involved in extracellular matrix remodelling. Elevated levels of granzyme B are also implicated in a number of autoimmune diseases, several skin diseases, and type 1 diabetes.
lmmunogen:	Recombinant protein within human Granzyme B aa 1-247.
Positive control:	NK-92 cell lysate, CTLL-2 cell lysate, human NK/T-cell lymphoma tissue, human spleen tissue.
Subcellular location:	Secreted, Cytolytic granule.
Database links:	SwissProt: P10144 Human   P04187 Mouse
Recommended Dilutions: WB IHC-P	1:100,000 1:500-1:5,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4 $^\circ\!\!C$ . Store at +4 $^\circ\!\!C$ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20 $^\circ\!\!C$ long term.
Purity:	Protein A affinity purified.

# Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

### Images



**Fig1:** Western blot analysis of Granzyme B on different lysates with Rabbit anti-Granzyme B antibody (HA723664) at 1/100,000 dilution.

Lane 1: NK-92 cell lysate (20 µg/Lane) Lane 2: K-562 cell lysate (negative) (20 µg/Lane) Lane 3: CTLL-2 cell lysate (20 µg/Lane) Lane 4: C2C12 cell lysate (negative) (20 µg/Lane)

Predicted band size: 28 kDa Observed band size: 30 kDa

Exposure time: 1 minute 30 seconds; ECL: K1801; 4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA723664) at 1/100,000 dilution was used in primary antibody dilution (K1803) at  $4^{\circ}$ C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Immunohistochemical analysis of paraffin-embedded human NK/T-cell lymphoma tissue with Rabbit anti-Granzyme B antibody (HA723664) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA723664) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

**Fig3:** Immunohistochemical analysis of paraffin-embedded human spleen tissue with Rabbit anti-Granzyme B antibody (HA723664) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (HA723664) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### **Background References**

- 1. Gleave A et al. Granzyme B in Autoimmune Skin Disease. Biomolecules. 2023 Feb
- 2. Jung K et al. Granzyme B in epithelial barrier dysfunction and related skin diseases. Am J Physiol Cell Physiol. 2022 Jul

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