Anti-Granzyme B Antibody

HA500252

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, mIHC
Molecular Wt:	Predicted band size: 28 kDa

Description: Abundant protease in the cytosolic granules of cytotoxic T-cells and NK-cells which activates caspase-independent pyroptosis when delivered into the target cell through the immunological synapse . It cleaves after Asp. Once delivered into the target cell, acts by catalyzing cleavage of gasdermin-E (GSDME), releasing the pore-forming moiety of GSDME, thereby triggering pyroptosis and target cell death . 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 .

Immunogen: Recombinant protein within human Granzyme B aa 50-247.

Positive control: human spleen tissue, human cervical cancer.

Subcellular location: Secreted.

Database links: SwissProt: P10144 Human

Recommended Dilutions:

IHC-P	1:400
mIHC	1:200

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

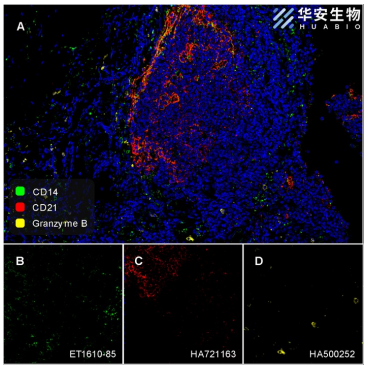

Fig1: Fluorescence multiplex immunohistochemical analysis of human tonsil (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-CD14 (ET1610-85, Green), anti-CD21 (HA721163, Red) and anti-Granzyme B (HA500252, Yellow) on tonsil. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in three rounds of staining: in the order of ET1610-85 (1/800 dilution), HA721163 (1/1,000 dilution) and HA500252 (1/200 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Zeiss Observer 7 Inverted Fluorescence Microscope.

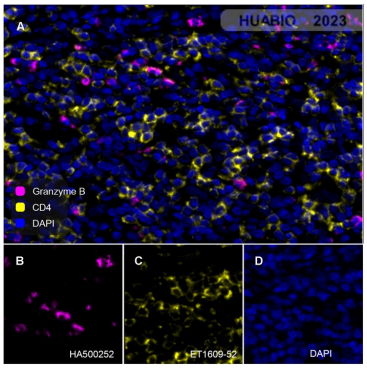

Fig2: Fluorescence multiplex immunohistochemical analysis of tertiary lymphoid structures in human cervical cancer (Formalin/PFA-fixed paraffin-embedded sections). Panel A: the merged image of anti-Granzyme B (HA500252, magenta), anti-CD4 (ET1609-52, yellow) on tertiary lymphoid structures. Panel B: anti- Granzyme B stained on cytotoxic NK cells and dendritic cells. Panel C: anti-CD4 stained on helper T cells and Treg cells. HRP Conjugated UltraPolymer Goat Polyclonal Antibody HA1119/HA1120 was used as a secondary antibody. The immunostaining was performed with the Sequential Immuno-staining Kit (IRISKit™MH010101, www.luminiris.cn). The section was incubated in three rounds of staining: in the order of HA500252 (1/200 dilution), ET1609-52 (1/1,000 dilution) for 20 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95℃. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

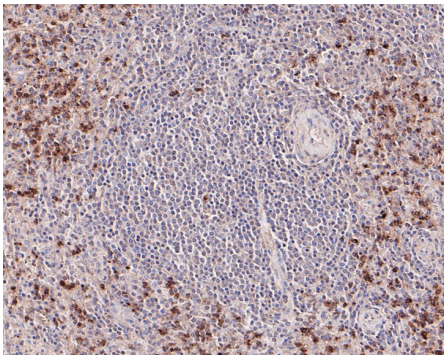

Fig3: Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-Granzyme B antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500252, 1/400) for 30 minutes 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.

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

Background References

1. Hameed A. et. al. Characterization of three serine esterases isolated from human IL-2 activated killer cells. J. Immunol. 141:3142-3147(1988).