Data Sheet (Cat.No.TMAH-00527)

Anti-Granzyme B/GZMB Antibody (9M512)

Product Details

Ig Type:	mIgG2a
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9M512
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in:K562 whole cell lysate (20μg) -All lanes: GZMB antibody at 1:1000 -Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution -Predicted band size:27.7 kDa -Observed band size:28 kDa -Exposure time:300s 2. IHC image of TMAH-00527 diluted at 1:50 and staining in paraffin-embedded human tonsil tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-Mouse IgG labeled by HRP and visualized using 0.05% DAB. 3. Overlay Peak curve showing THP-1 cells stained with TMAH-00527 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10^6 cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-Mouse IgG (H+L) at 1:200 dilution for 35min at 4°C.Control antibody (green line) was mouse IgG (1ug/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.
Application:	ELISA,FCM,IHC,WB
Recommended	WB:1:500-1:2000; IHC:1:50-1:200; FCM:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human GZMB Protein
Antigen Species:	Human
Gene ID:	3002
Uniprot ID:	P10144
Biology Area:	Cell biology, Immunology

Research Background

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.

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