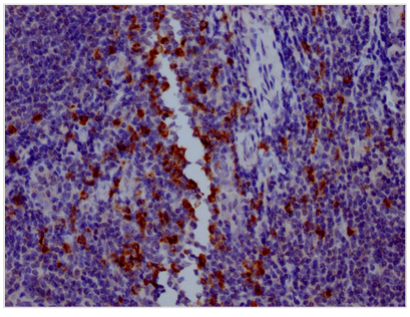
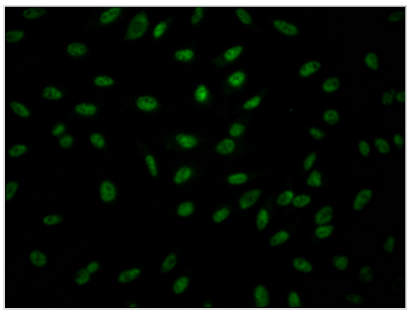
GZMB Antibody

Product Code	CSB-RA794900A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P10144
Immunogen	A synthesized peptide derived from human Granzyme B
Species Reactivity	Human
Tested Applications	ELISA, IHC, IF; Recommended dilution: IHC:1:50-1:200, IF:1:20-1:200
Relevance	This enzyme is necessary for target cell lysis in cell-mediated immune responses. It cleaves after Asp. 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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Cell biology; Immunology
Gene Names	GZMB
Accession NO.	6A1

Image



IHC image of CSB-RA794900A0HU diluted at 1:100 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-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA794900A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

GZMB is a serine protease found in the granules of cytotoxic T lymphocytes and natural killer cells. Many studies have demonstrated GZMB's prognostic value. The percentage of cells positive for GZMB and perforin expression was found to be inversely connected with regional node metastases in breast and lung cancer patients, indicating that these enzymes are critical for cancer apoptotic cell death. Lung cancer patients have a decreased percentage of GZMB and perforin expressing T-lymphocytes and NK cells. In colorectal cancer, tumors with a dense lymphocytic infiltration had higher GZMB expression, whereas tumors with vascular invasion and positive nodal status had lower GZMB expression.

The generation of the recombinant GZMB antibody includes obtaining the GZMB antibody gene, cloning the gene into a plasma vector, introducing the recombinant vector into mammalian cell lines, and achieving expression of adequate amounts of functional antibody. The recombinant GZMB antibody was purified using A synthesized peptide derived from human Granzyme B. It is reactive with the GZMB protein from Human and is suitable for the use in the ELISA, IHC, IF.