

Datasheet for ABIN1672901
GZMB ELISA Kit[Go to Product page](#)

1 Image

Overview

Quantity:	96 tests
Target:	GZMB
Binding Specificity:	AA 21-247
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Granzyme B
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: I21-Y247
Specificity:	Expression system for standard: NSO Immunogen sequence: I21-Y247
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	GZMB
Alternative Name:	GZMB (GZMB Products)
Background:	<p>Protein Function: 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.</p> <p>Background: Granzyme B is a serine protease that in humans is encoded by the GZMB gene. Granzyme B is expressed by cytotoxic T lymphocytes(CTL) and natural killer(NK) cells. CTL and NK cells share the remarkable ability to recognize specific infected target cells. They are thought to protect their host by inducing apoptosis of cells that bear on their surface 'nonself' antigens, usually peptides or proteins resulting from infection by intracellular pathogens. The protein encoded by this gene is crucial for the rapid induction of target cell apoptosis by CTL in cell-mediated immune response.</p> <p>Synonyms: Granzyme B,3.4.21.79,C11,CTLA-1,Cathepsin G-like 1,CTSG1,Cytotoxic T-lymphocyte proteinase 2,Lymphocyte protease,Fragmentin-2,Granzyme-2,Human lymphocyte protein,HLP,SECT,T-cell serine protease 1-3E,GZMB,CGL1, CSPB, CTLA1, GRB,</p> <p>Full Gene Name: Granzyme B</p> <p>Cellular Localisation: Cytoplasmic granule . Cytoplasmic granules of cytolytic T-lymphocytes and natural killer cells.</p>
Gene ID:	3002
UniProt:	P10144
Pathways:	Apoptosis , Caspase Cascade in Apoptosis

Application Details

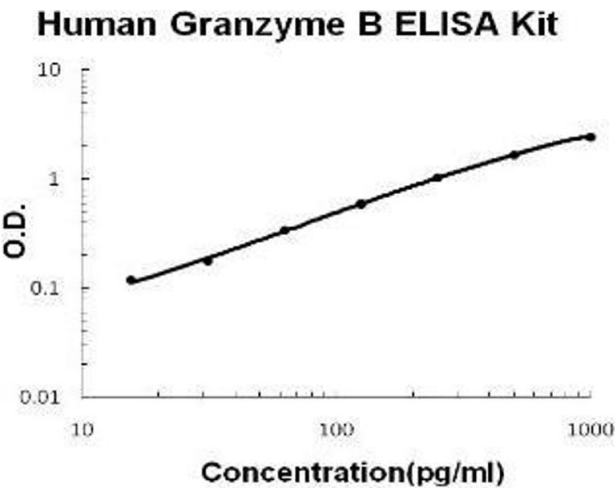
Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
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Application Details

Comment:	Sequence similarities: Belongs to the peptidase S1 family. Granzyme subfamily.
Plate:	Pre-coated
Protocol:	human Granzyme B ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Granzyme B has been precoated onto 96-well plates. Standards(NSO, I21-Y247) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Granzyme B is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human Granzyme B amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL human Granzyme B standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Granzyme B standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 89.5, Standard deviation: 4.65, CV(%): 5.2• Sample 2: n=16, Mean(pg/ml): 376, Standard deviation: 16.17, CV(%): 4.3• Sample 3: n=16, Mean(pg/ml): 525, Standard deviation: 23.10, CV(%): 4.4,• Sample 1: n=24, Mean(pg/ml): 97.6, Standard deviation: 7.32, CV(%): 7.5• Sample 2: n=24, Mean(pg/ml): 368, Standard deviation: 25.39, CV(%): 6.9• Sample 3: n=24, Mean(pg/ml): 567, Standard deviation: 44.23, CV(%): 7.8
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C, 4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months



ELISA

Image 1. Human Granzyme B PicoKine ELISA Kit standard curve