

Granulysin (GNLY) Active Protein | GNLY active protein

Active Granulysin (GNLY)

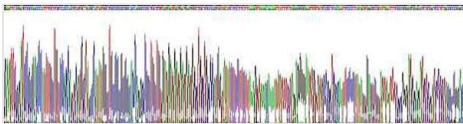
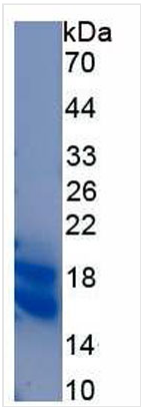
CATALOG # AAA153093	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Granulysin (GNLY); Active Granulysin (GNLY); Granulysin; GNLY active protein (eukaryotic; 293F Cell); Human; NKG5; LAG-2; TLA519; T-Lymphocyte Activation Gene 519; GNLY active protein

PRODUCT SPECIFICATIONS

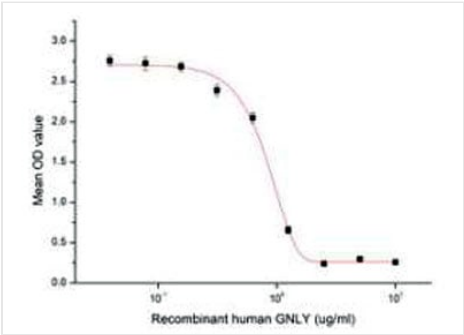
Reactivity	Homo sapiens (Human)
Purity/Purification	>80%
Form/Format	PBS, pH7.4, containing 5% Trehalose.
Concentration	Original Concentration: 500ug/mL (varies by lot)
Applicable Applications for GNLY active protein	Activity Assay, Cell Culture
Source	Eukaryotic expression.
Host	293F cell
Residues	Arg23~Leu145
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	9.4
Phenomenon explanation	The possible reasons that the actual band size differs from the predicted are as follows: 1. Splice variants: Alternative splicing may create different sized proteins from the same gene. 2. Relative charge: The composition of amino acids may affects the charge of the protein. 3. Post-translational modification: Phosphorylation, glycosylation, methylation etc. 4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form. 5. Polymerization of the target protein: Dimerization, multimerization etc.
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



Gene Sequencing (extract)

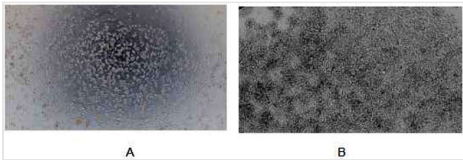
SDS-PAGE

Sample: Active recombinant GNLY, Human



Application Data

Inhibition of Jurkat cells proliferation after stimulated with GNLY.



Bioactivity

Granulysin (GNLY) is a member of the saposin-like protein (SAPLIP) family of membrane disrupting proteins. Granulysin is expressed in granules of natural killer and activated cytotoxic T cells. It exhibits cytolytic activity against intracellular or extracellular microbes and also tumors, either alone or in synergy with perforin. Human granulysin has structural similarity and 30 - 40% aa identity to granulysins and NK-lysins of other mammals such as bovine, porcine and canine; similar peptides in rodents have not been identified. The 15 kDa unglycosylated protein contains five helical domains; helix 2 and 3 contain 9 arginines and one cysteine critical for activity. The activity of GNLY is usually measured by a cell apoptosis assay using Jurkat cells. Jurkat cells were seeded into triplicate wells of 96-well plates at a density of 8,000 cells/well with 5% serum standard 1640 which contains various concentrations of recombinant human GM-CSF. After incubated for 3 days, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 ul of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 2-4 hours at 37 degree C. Apoptosis of Jurkat cells after incubation with GNLY for 3 days observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant human GNLY for 3 days. The result was shown in Figure 2. It was obvious that GNLY significantly decreased cell viability of Jurkat cells. The ED50 is 0.84 ug/ml. Figure 1. Inhibition of Jurkat cells proliferation after stimulated with GNLY (A) Jurkat cells cultured in 1640, stimulated with 1.25 ug/mL GNLY for 72h; (B) Unstimulated Jurkat cells cultured in 1640 for 72h.

RLSPEYYD LARAHLRDEE KSCPCLAQEG
PQGDLLTKTQ ELGRDYRTCL TIVQKLKKMV DKPTQRSVSN AATRVCRTGR
SRWRDVCNMF MRRYQSRVTQ GLVAGETAQQ ICEDLRLCIP STGPL

Sequence

ADDITIONAL INFORMATION

Product Categories/Family for GNLY active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7108344
NCBI GeneID	10578
NCBI Accession #	NP_006424.2
NCBI GenBank Nucleotide #	NM_006433.4

UniProt Accession #	P22749 ; P09325 ; Q6GU08
Molecular Weight	Predicted Molecular Mass: 15.6kDa Accurate Molecular Mass: 18&16kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	granulysin isoform 2
NCBI Official Synonym Full Names	granulysin
NCBI Official Symbol	GNLY
NCBI Official Synonym Symbols	519; LAG2; NKG5; LAG-2; D2S69E; TLA519
NCBI Protein Information	granulysin; T-cell activation protein 519; T-lymphocyte activation gene 519; lymphocyte-activation gene 2; lymphokine LAG-2
UniProt Protein Name	Granulysin
UniProt Gene Name	GNLY
UniProt Synonym Gene Names	LAG2; NKG5; TLA519
UniProt Entry Name	GNLY_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/homo-sapiens-human-active-protein/granulysin-gnly/153093>