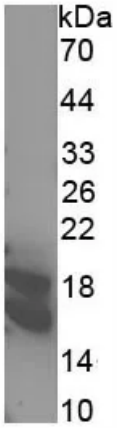
Active Granulysin (GNLY)

Catalog#:PHH12688

概述（Summary）

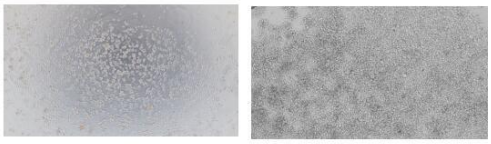
别称（Alternative Names）	NKG5; LAG-2; TLA519; T-Lymphocyte Activation Gene 519
纯度（Purity）	Greater than 80% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Arg23-Leu145】
Accession #	P22749
表达宿主（Host）	293F
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	15.6 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Antimicrobial protein that kills intracellular pathogens. Active against a broad range of microbes, including Gram-positive and Gram-negative bacteria, fungi, and parasites. Kills Mycobacterium tuberculosis.

电泳图（SDS-PAGE image）



Greater than 80% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



A B

Figure 1. Inhibition of Jurkat cells proliferation after stimulated with GNLY
(A) Jurkat cells cultured in 1640, stimulated with 1.25 μg/mL GNLY for 72h;
(B) Unstimulated Jurkat cells cultured in 1640 for 72h.

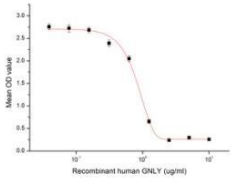


Figure 2. Inhibition of Jurkat cells proliferation after stimulated with GNLY.

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 μl 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 ℃. 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.

注意事项（Note）

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