

Tumor Necrosis Factor Alpha (TNFa) Active Protein | TNFa active protein

Active Tumor Necrosis Factor Alpha (TNFa)

CATALOG # AAA146614	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Tumor Necrosis Factor Alpha (TNFa); Active Tumor Necrosis Factor Alpha (TNFa); DIF; TNF-A; TNFSF2; Cachectin; Tumor Necrosis Factor Ligand Superfamily Member 2; TNFa active protein

PRODUCT SPECIFICATIONS

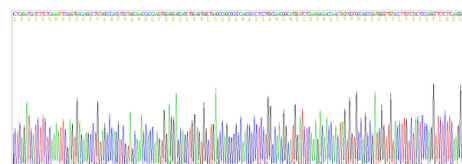
Host	E Coli
Purity/Purification	> 95%
Form/Format	Freeze-dried powder
Sequence Length	219
Applicable Applications for TNFa active protein	Activity Assay, Cell Culture
Fragment	Leu80~Leu235
Tag	N-terminal His Tag
Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Organism Species	Mouse
Isoelectric Point	5
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and 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. 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.

IMAGES

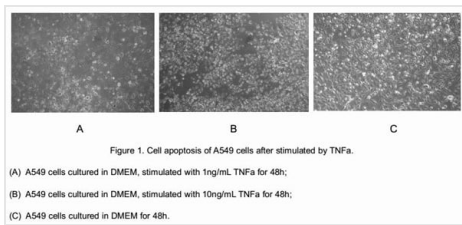
Table 1. ELISA detection of IL-1 β expression from A549 cells stimulated by TNFa.

Sample (cell supernatant of A549 cells)	Concentration of IL-1 β (ng/mL)
Stimulated with TNFa (1ng/mL)	9.304
Stimulated with TNFa (10ng/mL)	29.064
Unstimulated	1.344

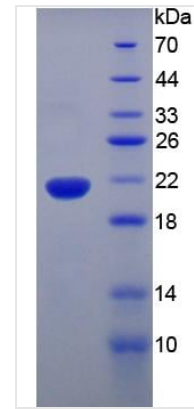
Application Data



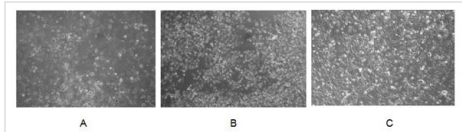
Application Data



Application Data



SDS-PAGE



Activity

Figure 1. Cell apoptosis of A549 cells after stimulated by TNFa. TNFa, being an endogenous pyrogen, is able to induce fever, apoptotic cell death, inflammation and inhibit tumorigenesis. As reported, TNFa could inhibit the proliferation and induce apoptosis of A549 cells, and the concentration of IL-1beta in cell supernatant will increase after stimulation. A549 cells were incubated in DMEM with TNFa (1ng/mL, 10ng/mL) for 2h, 4h, 8h, 24h, 48h, then cells were observed by inverted microscope and IL-1beta in cell supernatant was detected by ELISA. Cell apoptosis of A549 after incubation of 48h was shown in Figure 1. (A) A549 cells cultured in DMEM, stimulated with 1ng/mL TNFa for 48h; (B) A549 cells cultured in DMEM, stimulated with 10ng/mL TNFa for 48h; (C) A549 cells cultured in DMEM for 48h.

ADDITIONAL INFORMATION

Product Categories/Family for TNFa active protein	Active Protein
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NCBI AND UNIPROT INFORMATION

NCBI GI #	518831589
NCBI GeneID	21926
NCBI Accession #	NP_001265530.1
NCBI GenBank Nucleotide #	NM_001278601.1
UniProt Accession #	P06804; O35853; Q62326; Q91VF3
Molecular Weight	20.5kDa; 21kDa
NCBI Official Full Name	tumor necrosis factor isoform 2
NCBI Official Synonym Full Names	tumor necrosis factor
NCBI Official Symbol	Tnf
NCBI Official Synonym Symbols	DIF; Tnfa; TNF-a; TNFSF2; Tnlg1f; Tnfsf1a; TNFalpha; TNF-alpha
NCBI Protein Information	tumor necrosis factor
UniProt Protein Name	Tumor necrosis factor
UniProt Gene Name	Tnf
UniProt Synonym Gene Names	Tnfa; Tnfsf2; TNF-a; NTF; ICD1; ICD2

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/e-coli-active-protein/tumor-necrosis-factor-alpha-tnfa/146614>