

# Recombinant human ULBP-3 protein

Catalog Number: ATGP4009

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

30-217aa

### UniProt No.

Q9BZM4

### NCBI Accession No.

NP\_078794

### Alternative Names

NKG2D ligand 3, UL16 binding protein 3, N2DL-3, NKG2DL3, RAET1N, ALCAN-gamma, Retinoic acid early transcript 1N

## PRODUCT SPECIFICATION

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### Molecular Weight

49.3kDa (430aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS - PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

hIgG-His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

ULBP-3, also known as NKG2D ligand 3, is ligands for natural-killer group 2, member D (NKG2D) receptor. It is related to MHC class I molecules, but its gene maps outside the MHC locus. The domain structure of ULBP3 differs significantly from those of conventional MHC class I molecules. It does not contain the  $\alpha 3$  domain and the

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transmembrane segment. ULBP3 is thus composed of only the  $\alpha 1\alpha 2$  domain which is linked to the cell membrane by the GPI anchor. It functions as a stress-induced ligand for NKG2D receptor. In the normal hair follicle, ULBP3 is turned off. However, different studies reported its high level in alopecia areata (AA). It is also expressed on some tumor cells and have been implicated in tumor surveillance. Recombinant human ULBP-3, fused to hIlgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

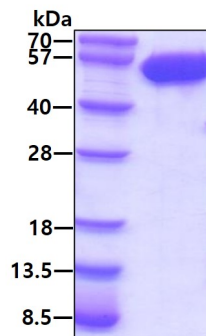
<ADP>DAHSLWY NFTIIHLPRH GQQWCEVQSQ VDQKNFLSYD CGSDKVLMSG HLEEQLYATD AWGKQLEMLR  
 EVGQRLRLEL ADTELEDFTP SGPLTLQVRM SCECEADGYI RGSWQFSFDG RKFLLFDSNN RKWTVVHAGA RRMKEKWEKD  
 SGLTTFFKMV SMRDCKSWLR DFLMHRKKRL EPTAPPTMAP G<LEPKSCDKT HTCPCPAPE LLGGPSVFLF PPKPKDTLMI  
 SRTPEVTCVV VDVSHEDPEV KFNWYVDGVE VHNAKTKPRE EQYNSTYRVV SVLTVLHQDW LNGKEYKCKV SNKALPAPIE  
 KTISKAKGQP REPQVYTLPP SRDELTKNQV SLTCLVKGFY PSDIAVEWES NGQPENNYKT TPPVLDSGDS FFLYSKLTVD  
 KSRWQQGNVF SCSVMHEALH NHYTQKSLSL SPGKHHHHHH>

## General References

Moftah NH, et al, (2016) Arch Dermatol Res. 308:415-421.  
 Wirsching HG, et al, (2019) JCI Insight. 4:e128217.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain