

Rabbit ULBP1 Polyclonal Antibody | anti-ULBP1 antibody

Anti-ULBP1 Antibody

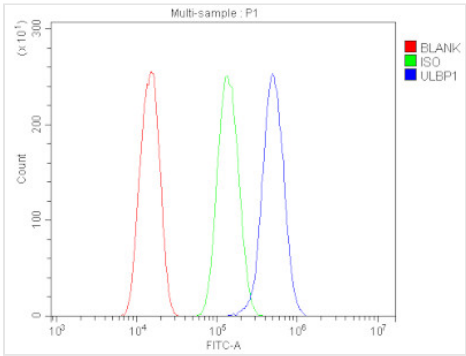
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125721	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

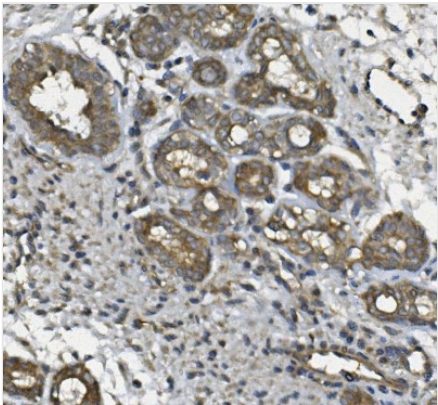
ULBP1; Polyclonal Antibody; Anti-ULBP1 Antibody; N2DL1; RAET1I; UL16-binding protein 1; ALCAN-beta; NKG2D ligand 1; N2DL-1; NKG2DL1; Retinoic acid early transcript 1I; UL16 binding protein 1; anti-ULBP1 antibody

PRODUCT SPECIFICATIONS

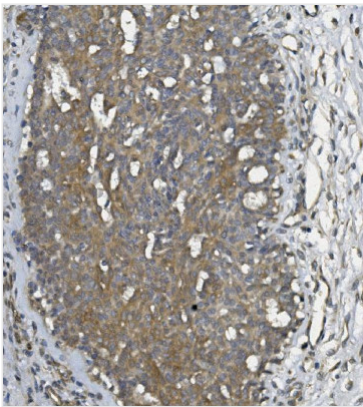
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for ULBP1 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Applicable Applications for anti-ULBP1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human ULBP1 recombinant protein (Position: W27-K209).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG () for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit () for IHC(P).
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



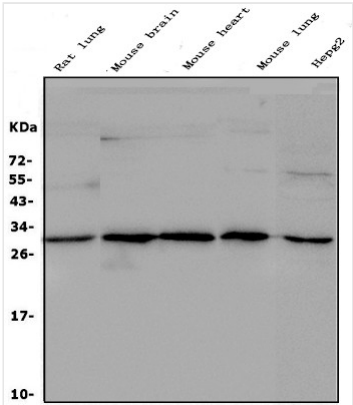
FCM/FACS (Flow Cytometry)
Figure 4. Flow Cytometry analysis of PC-3 cells using anti-ULBP1 antibody (AAA125721).Overlay histogram showing PC-3 cells stained with AAA125721 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ULBP1 Antibody (AAA125721,1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)
Figure 2. IHC analysis of ULBP1 using anti ULBP1 antibody (AAA125721).ULBP1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-ULBP1 Antibody (AAA125721) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)
Figure 3. IHC analysis of ULBP1 using anti ULBP1 antibody (AAA125721).ULBP1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-ULBP1 Antibody (AAA125721) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)
Figure 1. Western blot analysis of ULBP1 using anti-ULBP1 antibody (AAA125721).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: rat lung tissue lysatesLane 2: mouse brain tissue lysatesLane 3: mouse heart tissue lysatesLane 4: mouse lung tissue lysatesLane 5: human HepG2 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-ULBP1 antigen affinity purified polyclonal antibody with Tanon 5200 system. A specific band was detected for ULBP1 at approximately 28KD. The expected band size for ULBP1 is at 28KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ULBP1 antibody

UL16 binding protein 1 (ULBP1) is a cell surface glycoprotein encoded by ULBP1 gene located on the chromosome 6. The protein encoded by this gene is a ligand of natural killer group 2, member D (NKG2D), an immune system-activating receptor on NK cells and T-cells. Binding of the encoded ligand to NKG2D leads to activation of several signal transduction pathways, including those of JAK2, STAT5, ERK and PI3K kinase/Akt. Also, in cytomegalovirus-infected cells, this ligand binds the UL16 glycoprotein and is prevented from activating the immune system. Three transcript variants encoding different isoforms have been found for this gene.

References	1. Cosman, D., Mullberg, J., Sutherland, C. L., Chin, W., Armitage, R., Fanslow, W., Kubin, M., Chalupny, N. J. ULBPs, novel MHC class I-related molecules, bind to CMV glycoprotein UL16 and stimulate NK cytotoxicity through the NKG2D receptor. <i>Immunity</i> 14: 123-133, 2001. 2. Deng, W., Gowen, B. G., Zhang, L., Wang, L., Lau, S., Iannello, A., Xu, J., Rovis, T. L., Xiong, N., Raulet, D. H. A shed NKG2D ligand that promotes natural killer cell activation and tumor rejection. <i>Science</i> 348: 136-139, 2015. 3. Lopez-Soto, A., Quinones-Lombrana, A., Lopez-Arbesu, R., Lopez-Larrea, C., Gonzalez, S. Transcriptional regulation of ULBP1, a human ligand of the NKG2D receptor. <i>J. Biol. Chem.</i> 281: 30419-30430, 2006.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	952556270
NCBI GeneID	80329
NCBI Accession #	NP_001304018.1
NCBI GenBank Nucleotide #	NM_001317089.1
UniProt Accession #	Q9BZM6; Q5VY81; Q8IZW3; Q8IZX6
NCBI Official Full Name	NKG2D ligand 1 isoform 2
NCBI Official Synonym Full Names	UL16 binding protein 1
NCBI Official Symbol	ULBP1
NCBI Official Synonym Symbols	N2DL-1; RAET1I; NKG2DL1
NCBI Protein Information	NKG2D ligand 1
UniProt Protein Name	NKG2D ligand 1
UniProt Gene Name	ULBP1
UniProt Synonym Gene Names	N2DL1; RAET1I; N2DL-1; NKG2DL1

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.