

LAG3 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6987c

Specification

LAG3 Antibody (Center) - Product Information

| | |
|-------------------|------------------------|
| Application | WB, IHC-P, FC,E |
| Primary Accession | P18627 |
| Reactivity | Human, Mouse |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Antigen Region | 103-132 |

LAG3 Antibody (Center) - Additional Information

Gene ID 3902

Other Names

Lymphocyte activation gene 3 protein, LAG-3, Protein FDC, CD223, LAG3, FDC

Target/Specificity

This LAG3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 103-132 amino acids from the Central region of human LAG3.

Dilution

WB~~1:1000

IHC-P~~1:25

FC~~1:25

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

LAG3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

LAG3 Antibody (Center) - Protein Information

Name LAG3 {ECO:0000303|PubMed:35761082, ECO:0000312|HGNC:HGNC:6476}

Function [Lymphocyte activation gene 3 protein]: Inhibitory receptor on antigen activated T-cells

(PubMed:[20421648](#), PubMed:[35761082](#), PubMed:[7805750](#), PubMed:[8647185](#)). Delivers inhibitory signals upon binding to ligands, such as MHC class II, its main ligand present at the surface of antigen-presenting cells (APCs), and FGL1, which is secreted by hepatocytes and certain types of tumor cells (PubMed:[30580966](#), PubMed:[32920841](#), PubMed:[35761082](#), PubMed:[39671469](#), PubMed:[7589152](#), PubMed:[8647185](#), PubMed:[9159144](#)). Ligand-binding initiates a signaling that inhibits the T-cell receptor (TCR) in the immunological synapse, preventing T-cell activation (PubMed:[40101708](#)). Mechanistically, ligand-binding promotes (1) ubiquitination of the KIEEL motif, unleashing the RRFSALE motif from the membrane and (2) leading to the formation of condensates with the TCR component CD3E, thereby disrupting the association between CD3E and LCK and preventing TCR activation (PubMed:[40101708](#), PubMed:[40592325](#)). May inhibit antigen-specific T-cell activation in synergy with PDCD1/PD-1 (By similarity). Negatively regulates the proliferation, activation, effector function and homeostasis of both CD8(+) and CD4(+) T-cells (PubMed:[20421648](#), PubMed:[7805750](#), PubMed:[8647185](#)). Also mediates immune tolerance: constitutively expressed on a subset of regulatory T-cells (Tregs) and contributes to their suppressive function (By similarity). Also acts as a negative regulator of plasmacytoid dendritic cell (pDCs) activation (By similarity).

Cellular Location

[Lymphocyte activation gene 3 protein]: Cell membrane; Single-pass type I membrane protein.
Note=Clusters on the T-cell surface following ligand-binding

Tissue Location

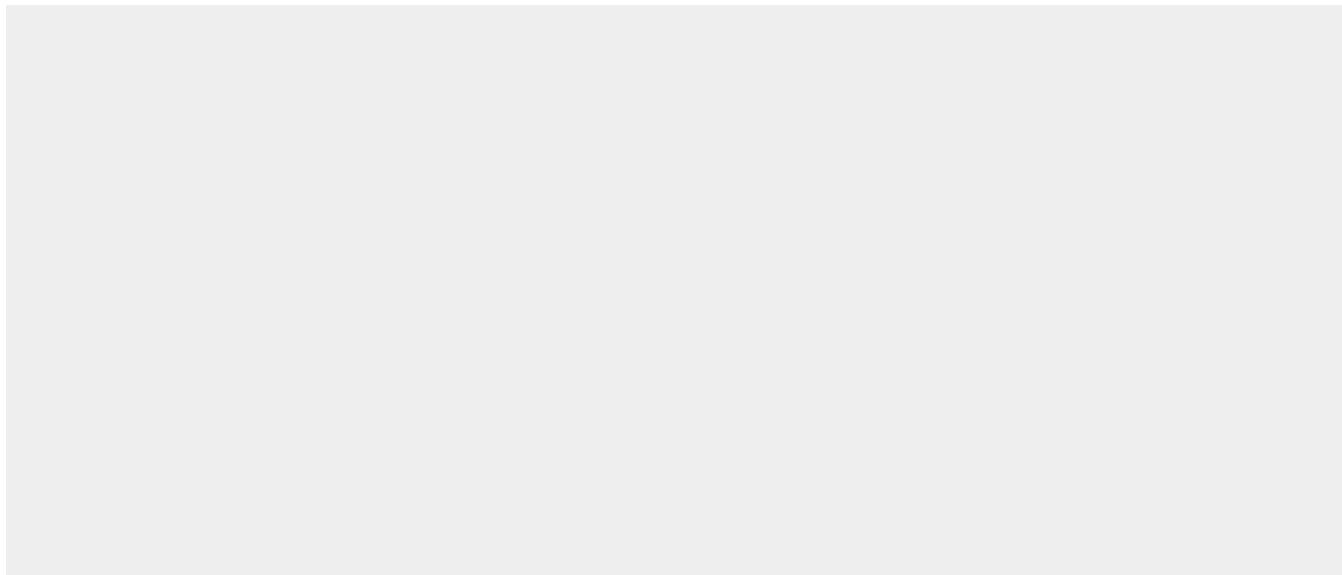
Primarily expressed in activated T-cells and a subset of natural killer (NK) cells.

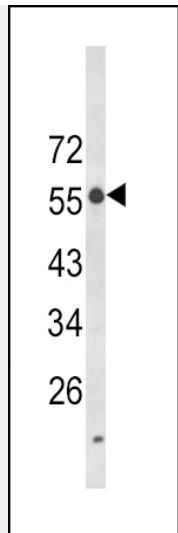
LAG3 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

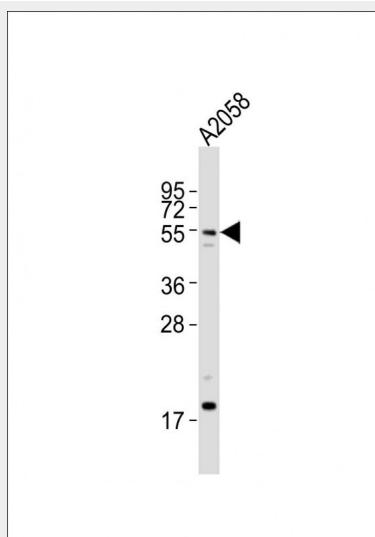
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

LAG3 Antibody (Center) - Images

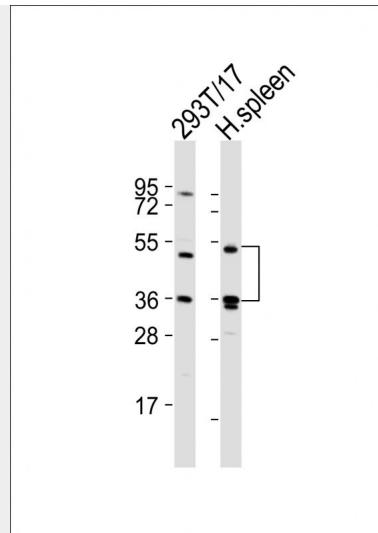




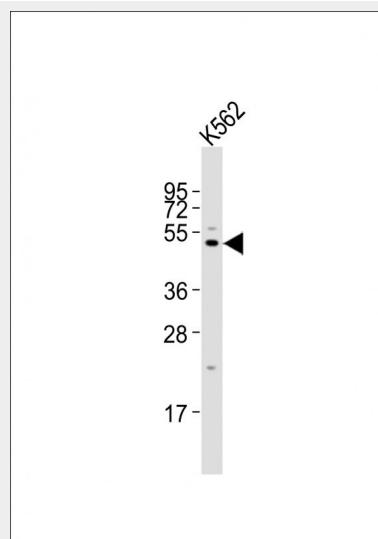
Western blot analysis of LAG3 Antibody (Center) (Cat. #AP6987c) in K562 cell line lysates (35ug/lane). LAG3 (arrow) was detected using the purified Pab.



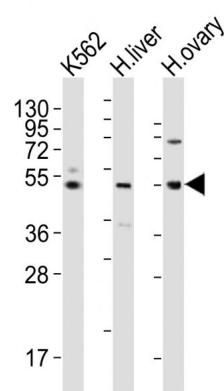
Anti-LAG3 Antibody (Center) at 1:2000 dilution + A2058 whole cell lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



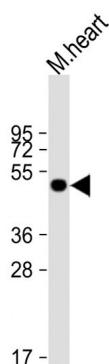
All lanes : Anti-LAG3 Antibody (Center) at 1:2000 dilution Lane 1: 293T/17 whole cell lysates Lane 2: human spleen lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



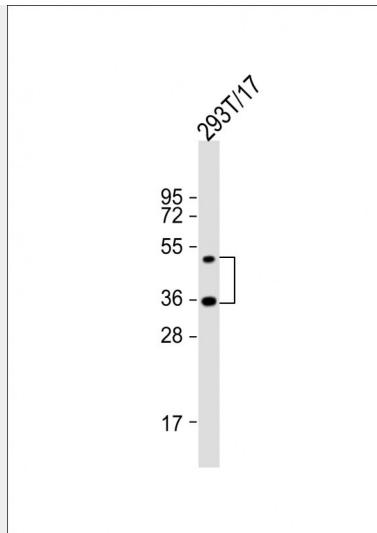
Anti-LAG3 Antibody (Center) at 1:2000 dilution + K562 whole cell lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



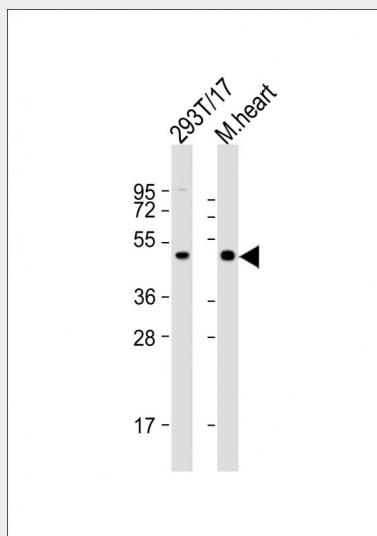
All lanes : Anti-LAG3 Antibody (Center) at 1:2000 dilution Lane 1: K562 whole cell lysates Lane 2: human liver lysates Lane 3: human ovary lysates Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



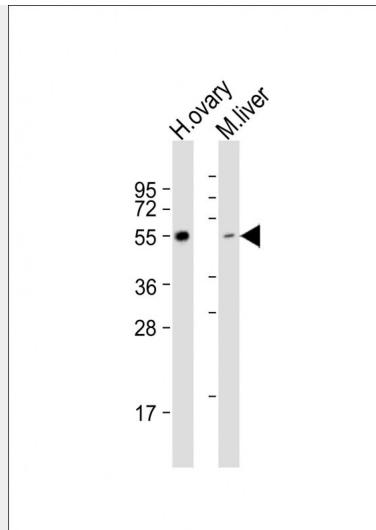
Anti-LAG3 Antibody (Center) at 1:2000 dilution + mouse heart lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



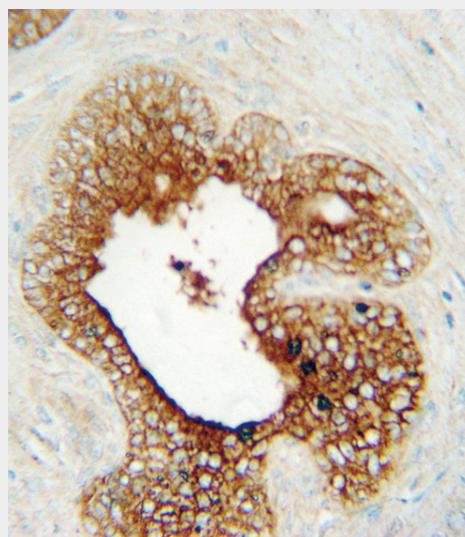
Anti-LAG3 Antibody (Center) at 1:2000 dilution + 293T/17 whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



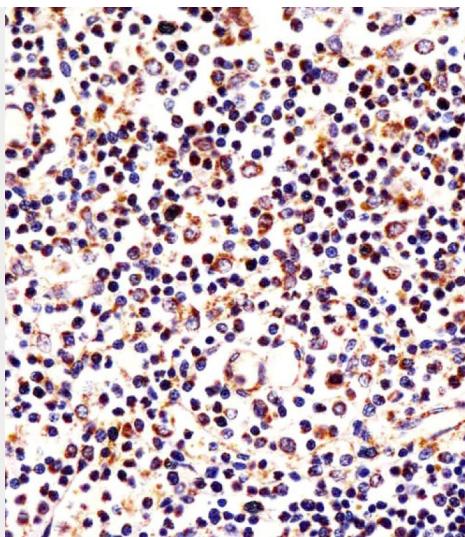
All lanes : Anti-LAG3 Antibody (Center) at 1:2000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: mouse heart lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



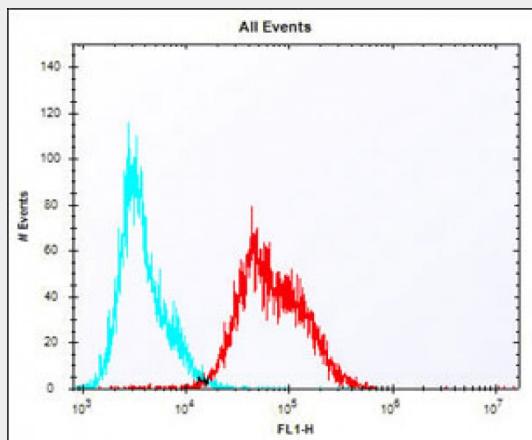
All lanes : Anti-LAG3 Antibody (Center) at 1:1000 dilution Lane 1: human ovary lysate Lane 2: mouse liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



LAG3 Antibody (Center) (Cat. #AP6987c) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LAG3 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



AP6987C staining LAG3 in human thymus tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyclonal antibody was used as the secondary antibody.



Overlay histogram showing Jurkat cells stained with AP6987C (red line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP6987C, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

LAG3 Antibody (Center) - Background

Lymphocyte-activation protein 3 belongs to Ig superfamily and contains 4 extracellular Ig-like domains.

LAG3 Antibody (Center) - References

Smyth,D.J., et.al., BMC Med. Genet. 7, 20 (2006)