10320 Camino Santa Fe, Suite G
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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 (HGNC:6476)

Synonyms FDC

Function Lymphocyte activation gene 3 protein: Inhibitory receptor on antigen activated T-cells (PubMed:20421648, PubMed:7805750, PubMed:8647185). Delivers inhibitory signals upon binding to ligands, such as FGL1 (By similarity). FGL1 constitutes a major ligand of LAG3 and is responsible for LAG3 T-cell inhibitory function (By similarity). Following TCR engagement, LAG3 associates with CD3-TCR in the immunological synapse and directly inhibits T-cell activation (By similarity). May inhibit antigen-specific T-cell activation in synergy with PDCD1/PD-1, possibly by acting as a coreceptor for 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). Binds MHC class II (MHC-II); the precise role of MHC-II-binding is however unclear (PubMed:8647185).

Cellular Location
[Lymphocyte activation gene 3 protein]: Cell membrane; Single-pass type I membrane protein

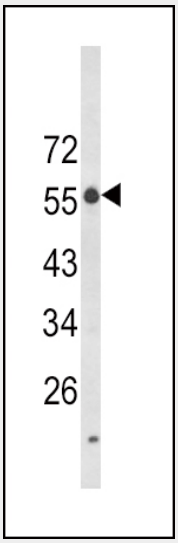
Tissue Location
Primarily expressed in activated T-cells and a subset of natural killer (NK) cells.

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 Cytomety
- 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.

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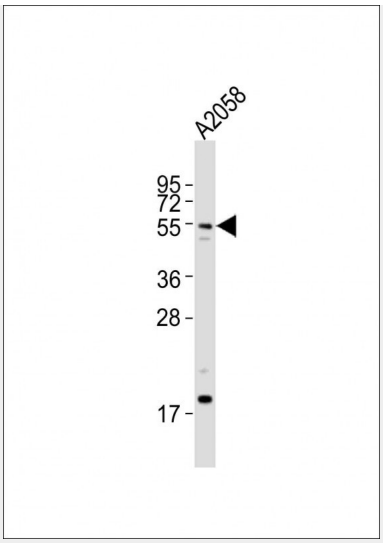
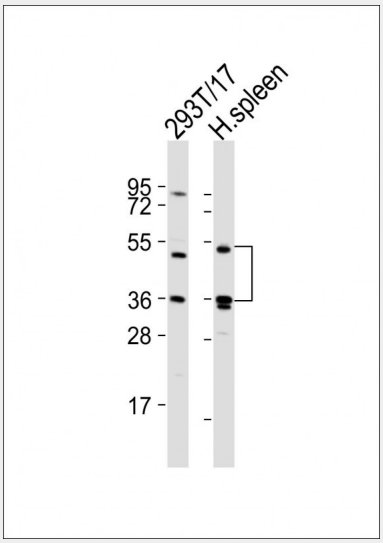


Anti-LAG3 Antibody (Center)at 1:2000 dilution + A2058 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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 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.

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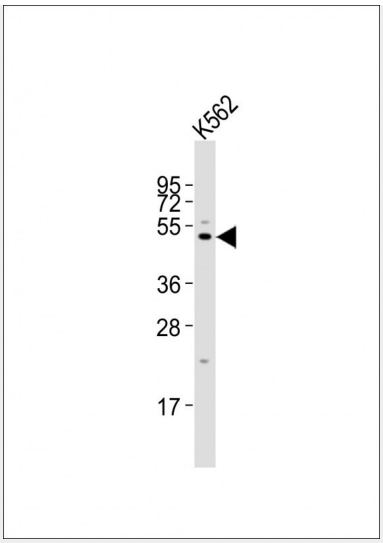
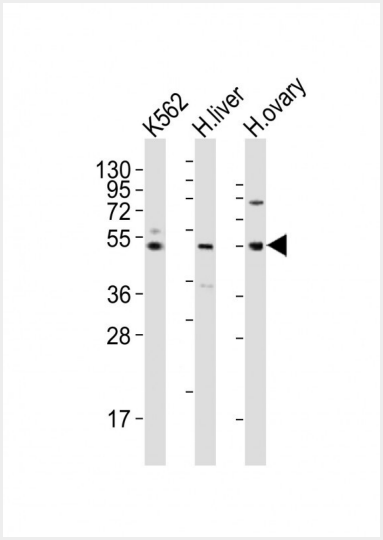


Anti-LAG3 Antibody (Center)at 1:2000 dilution + K562 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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 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.

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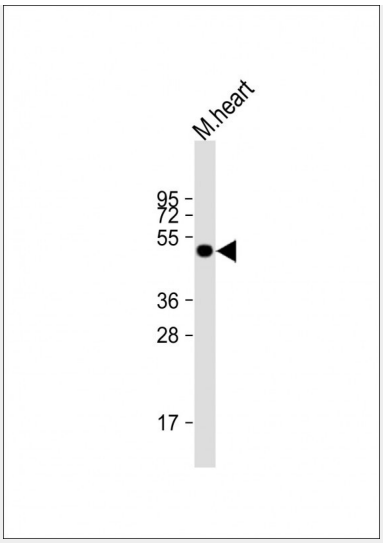
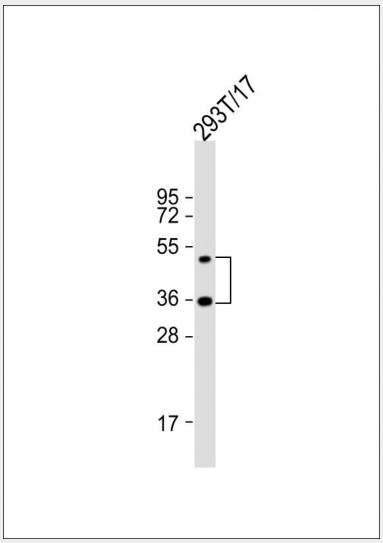


Anti-LAG3 Antibody (Center) at 1:2000 dilution + mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-LAG3 Antibody (Center) at 1:2000 dilution + 293T/17 whole cell 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.

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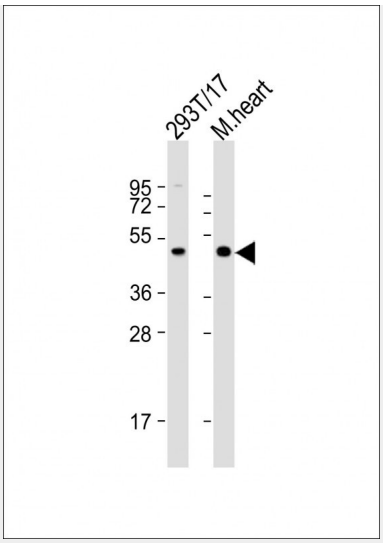
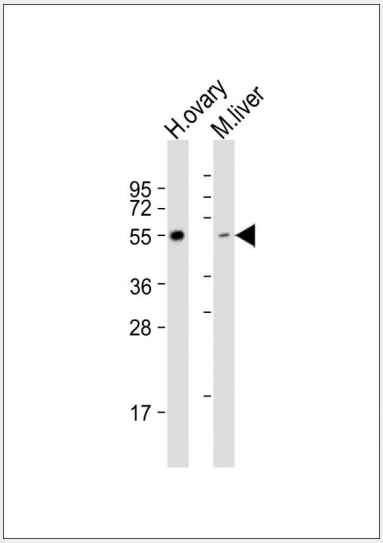


All lanes : Anti-LAG3 Antibody (Center) at 1:2000 dilution Lane 1: 293T/17 whole cell lysate Lane 2: mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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.

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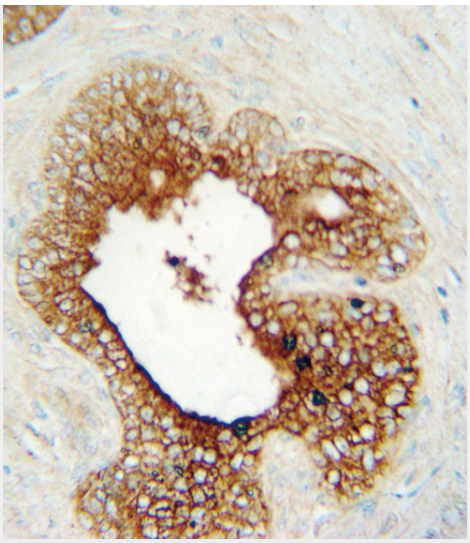
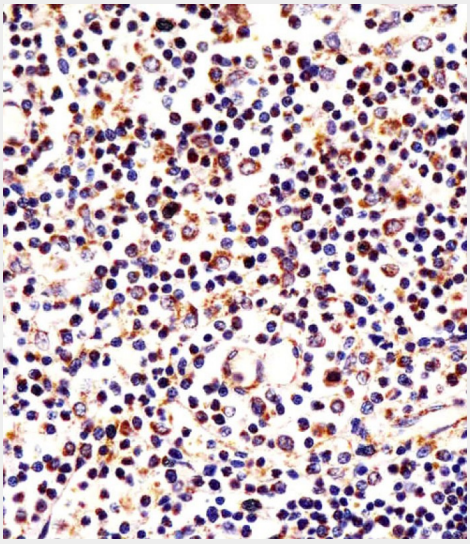


LAG3 Antibody (Center) (Cat. #AP6987c) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LAG3 Antibody (Center) for immunohistochemistry. Clinical 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 polyvalent antibody was used as the secondary antibody.

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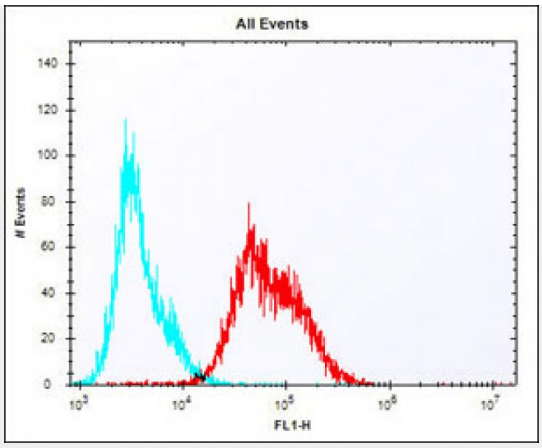

Overlay histogram showing Jurkat cells stained with AP6987C (red line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP6987C, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 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)