

**LAG3 Antibody**  
Catalog # ASC12109**Specification****LAG3 Antibody - Product Information**

Application	<b>WB, IHC-P, IF, E</b>
Primary Accession	<a href="#">P18627</a>
Other Accession	<a href="#">NP_002277</a>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>IgG</b>
Calculated MW	<b>Predicted: 55 kDa</b>
	<b>Observed: 54 kDa KDa</b>

**LAG3 Antibody - Additional Information**

Gene ID	<b>3902</b>
Alias Symbol	<b>LAG3</b>
<b>Other Names</b>	
LAG3 Antibody: lymphocyte activating 3, LAG-3, CD223	

**Target/Specificity**

At least two antibodies are known to exist; this antibody will only detect the largest isoform.

**Reconstitution & Storage**

LAG3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

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

**LAG3 Antibody - Protein Information**

Name LAG3 ([HGNC:6476](#))

**Synonyms** FDC

**Function**

Lymphocyte activation gene 3 protein: Inhibitory receptor on antigen activated T-cells (PubMed:<a href="http://www.uniprot.org/citations/20421648" target="\_blank">20421648</a>, PubMed:<a href="http://www.uniprot.org/citations/7805750" target="\_blank">7805750</a>, PubMed:<a href="http://www.uniprot.org/citations/8647185" target="\_blank">8647185</a>). 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:<a href="http://www.uniprot.org/citations/20421648" target="\_blank">20421648</a>, PubMed:<a href="http://www.uniprot.org/citations/7805750" target="\_blank">7805750</a>, PubMed:<a href="http://www.uniprot.org/citations/8647185" target="\_blank">8647185</a>). 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:<a href="http://www.uniprot.org/citations/8647185" target="\_blank">8647185</a>).

#### **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 - 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 - Images**

### **LAG3 Antibody - Background**

The lymphocyte activation gene-3 (LAG3) is a member of the immunoglobulin superfamily and binds MHC class II with high affinity (1), negatively regulating T-cell function and homeostasis (2). It is expressed in B, T, and NK cells, monocytes, and dendritic cells (3), and acts to regulate T cell expansion (4). LAG3 is also an important immune checkpoint protein, with anti-LAG3 antibodies activating T effector cells and affecting regulatory T cell functions. Furthermore LAG3 appears to act in a synergistic fashion with PD-1/PD-L1, suggesting that a dual antibody approach may prove useful in cancer immunotherapy (5).

### **LAG3 Antibody - References**

Huard B, Tournier M, Hercend T, et al. Lymphocyte-activation gene 3/major histocompatibility complex class II interaction modulates the antigenic response of CD4+ T lymphocytes. *Eur J Immunol* 1994; 24:3216-21. Triebel F. LAG-3: a regulator of T-cell and DC responses and its use in therapeutic vaccination. *Trends Immunol* 2003; 24:619-22. Workman CJ, Wang Y, El Kasmi KC, et al. LAG-3 regulates plasmacytoid dendritic cell homeostasis. *J Immunol*. 2009; 182:1885-91. Workman CJ, Vignali DA. The CD4-related molecule, LAG-3 (CD223), regulates the expansion of activated T cells. *Eur J Immunol* 2003; 33:970-9.