

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

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

**LAG3 Antibody - Additional Information**

|                                                      |      |
|------------------------------------------------------|------|
| Gene ID                                              | 3902 |
| Alias Symbol                                         | LAG3 |
| Other Names                                          |      |
| 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 {ECO:0000303|PubMed:35761082, ECO:0000312|HGNC:HGNC:6476}

**Function**

[Lymphocyte activation gene 3 protein]: Inhibitory receptor on antigen activated T-cells (PubMed: [20421648](http://www.uniprot.org/citations/20421648), PubMed: [35761082](http://www.uniprot.org/citations/35761082), PubMed: [7805750](http://www.uniprot.org/citations/7805750), PubMed: [8647185](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/30580966), PubMed: [32920841](http://www.uniprot.org/citations/32920841), PubMed: [35761082](http://www.uniprot.org/citations/35761082)).

target="\_blank">35761082</a>, PubMed:<a href="http://www.uniprot.org/citations/39671469" target="\_blank">39671469</a>, PubMed:<a href="http://www.uniprot.org/citations/7589152" target="\_blank">7589152</a>, PubMed:<a href="http://www.uniprot.org/citations/8647185" target="\_blank">8647185</a>, PubMed:<a href="http://www.uniprot.org/citations/9159144" target="\_blank">9159144</a>). Ligand-binding initiates a signaling that inhibits the T-cell receptor (TCR) in the immunological synapse, preventing T-cell activation (PubMed:<a href="http://www.uniprot.org/citations/40101708" target="\_blank">40101708</a>). Mechanistically, ligand-binding promotes (1) ubiquitination of the KIEELE 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:<a href="http://www.uniprot.org/citations/40101708" target="\_blank">40101708</a>, PubMed:<a href="http://www.uniprot.org/citations/40592325" target="\_blank">40592325</a>). 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:<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).

#### **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 - 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.