

## LAG3 Antibody [6B12]

Catalog # ASC12167

## **Specification**

# LAG3 Antibody [6B12] - Product Information

Application IHC-P, IF, ICC Primary Accession P18627
Other Accession NP\_002277
Host Mouse Clonality Monoclonal Isotype IgG1,k

# LAG3 Antibody [6B12] - Additional Information

Gene ID 3902 Alias Symbol LAG3

**Other Names** 

LAG3 Antibody: lymphocyte activating 3, LAG-3, CD223

### **Reconstitution & Storage**

LAG-3 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 [6B12] is for research use only and not for use in diagnostic or therapeutic procedures.

### LAG3 Antibody [6B12] - 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/7805750" 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 [6B12] - 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 [6B12] - Images

### LAG3 Antibody [6B12] - 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.

## LAG3 Antibody [6B12] - 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.