

# LAG3 Antibody [1G4]

Catalog # ASC12170

## Product Information

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|-------------------|---------------------------|
| Application       | WB, IHC-P, IF, ICC, E     |
| Primary Accession | <a href="#">P18627</a>    |
| Other Accession   | <a href="#">NP_002277</a> |
| Host              | Mouse                     |
| Clonality         | Monoclonal                |
| Isotype           | IgG1,k                    |
| Clone Names       | LAG3                      |
| Calculated MW     | 57449                     |

## Additional Information

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|--------------|------------------------------------------------------|
| Gene ID      | 3902                                                 |
| Alias Symbol | LAG3                                                 |
| Other Names  | LAG3 Antibody: lymphocyte activating 3, LAG-3, CD223 |

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|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
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| Precautions | LAG3 Antibody [1G4] is for research use only and not for use in diagnostic or therapeutic procedures. |
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## Protein Information

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| Name | LAG3 ( <a href="#">HGNC:6476</a> ) |
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| Synonyms | FDC |
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| Function | Lymphocyte activation gene 3 protein: Inhibitory receptor on antigen activated T-cells (PubMed: <a href="#">20421648</a> , PubMed: <a href="#">7805750</a> , PubMed: <a href="#">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="#">20421648</a> , PubMed: <a href="#">7805750</a> , PubMed: <a href="#">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 |
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similarity). Binds MHC class II (MHC-II); the precise role of MHC-II-binding is however unclear (PubMed:[8647185](#)).

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|--------------------------|--------------------------------------------------------------------------------------------|
| <b>Cellular Location</b> | [Lymphocyte activation gene 3 protein]: Cell membrane; Single-pass type I membrane protein |
| <b>Tissue Location</b>   | Primarily expressed in activated T-cells and a subset of natural killer (NK) cells.        |

## Background

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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.

## References

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Huard B, Tournier M, Hercend T, et al. Lymphocyte-activation gene 3/major histocompatibility complex class II interaction modulates the antigenic response of CD4<sup>+</sup> 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.