

## APC anti-human CD223 (LAG-3) Antibody

<b>Catalog# / Size</b>	369211 / 25 tests 369212 / 100 tests
<b>Clone</b>	7H2C65
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	CD223, LAG-3, LAG3, lymphocyte-activation gene-3
<b>Isotype</b>	Mouse IgG1, $\kappa$
<b>Description</b>	CD223, also known as LAG-3, is a 70 kD type I transmembrane glycoprotein that is involved in T-cell signaling. Similar to CD4, CD223 binds MHC class II, but with a higher affinity. CD223 negatively regulates T-cell activation. It is expressed by activated T-cells and natural killer cells (NKs), as well as regulatory T-cells. It is transiently expressed on the surface of activated T-cells in acute conditions but high expression is maintained under tolerizing conditions. CD223 deficiency results in reduced tumor growth. CD223 and PD-1 can act in synergy and reverse exhausted phenotypes, improve tumor rejection, and control viral load.

### Product Details

<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human LAG-3 transfected cells.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	The staining of clone 7H2C65 cannot be blocked by clone 11C3C65, which is another anti-human CD223 (LAG-3) antibody.

### Product Citations

1. Zhang B, *et al.* 2023. Signal Transduct Target Ther. 8:28. [PubMed](#)
2. Li N, *et al.* 2023. Nat Commun. 14:1986. [PubMed](#)
3. Zhang J, *et al.* 2022. Nature. 609:369. [PubMed](#)
4. Cai J, *et al.* 2021. eLife. 10:00. [PubMed](#)
5. Dai Z, *et al.* 2022. Signal Transduct Target Ther. 7:85. [PubMed](#)
6. Omer B, *et al.* 2022. Cancer Immunol Res. 10:512. [PubMed](#)
7. Leclercq G, *et al.* 2022. J Immunother Cancer. 10:. [PubMed](#)
8. Ho JY, *et al.* 2021. Mol Ther Methods Clin Dev. 21:237. [PubMed](#)
9. Rouso-Noori L, *et al.* 2021. Nat Commun. 12:3615. [PubMed](#)
10. Wang S, *et al.* 2021. Oncol Rep. 1.9166666666666667. [PubMed](#)

## Antigen Details

<b>Structure</b>	70 kD transmembrane glycoprotein, Ig superfamily, highly homologous to CD4.
<b>Distribution</b>	Activated T-cells and natural killer cells (NKs) and regulatory T cells.
<b>Function</b>	Negatively regulates T-cell activation.
<b>Ligand/Receptor</b>	MHC class II molecules.
<b>Cell Type</b>	Dendritic cells, NK cells, T cells, Tregs
<b>Biology Area</b>	Immunology, Inhibitory Molecules
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Castelli C, <i>et al.</i> 2014. <i>Oncoimmunology</i> 3(11):e967146.</li> <li>2. Poirier N, <i>et al.</i> 2011. <i>Clin. Exp. Immunol.</i> 164:265.</li> <li>3. Juno JA, <i>et al.</i> 2015. <i>Retrovirology</i> 12:17.</li> <li>4. Casati C, <i>et al.</i> 2006. <i>Cancer Res.</i> 66:4450.</li> </ol>
<b>Gene ID</b>	<a href="#">3902</a>

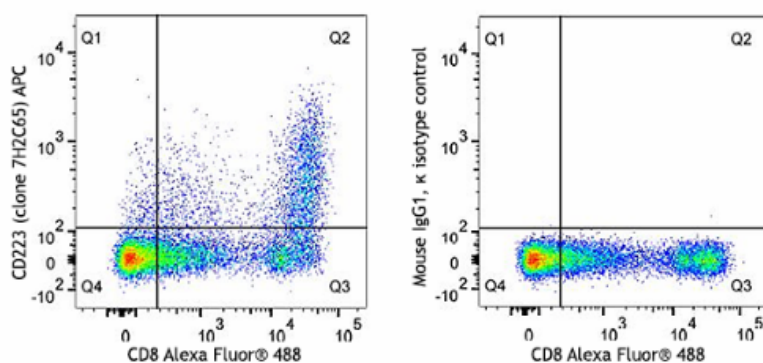
## Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-human CD223 (LAG-3), Alexa Fluor® 647 anti-human CD223 (LAG-3), PE/Cyanine7 anti-human CD223 (LAG-3), PE anti-human CD223 (LAG-3), FITC anti-human CD223 (LAG-3), APC anti-human CD223 (LAG-3), APC/Fire™ 750 anti-human CD223 (LAG-3), PE/Dazzle™ 594 anti-human CD223 (LAG-3) Antibody, PerCP/Cyanine5.5 anti-human CD223 (LAG-3), APC/Cyanine7 anti-human CD223 (LAG-3), PE/Fire™ 640 anti-human CD223 (LAG-3), PE/Fire™ 810 anti-human CD223 (LAG-3), PE/Fire™ 700 anti-human CD223 (LAG-3), Spark Red™ 718 anti-human CD223 (LAG-3) (Flexi-Fluor™), APC anti-human CD223

## Product Data



CD3/CD28/IL-2 stimulated (three days) peripheral blood mononuclear cells (PBMCs) were stained with CD8 Alexa Fluor® 488 and CD223 (Clone 7H2C65) APC (Left) or mouse IgG1, κ APC isotype control (Right).

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