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DATA SHEET

Mouse Anti-LAG3 (CD223) [MD335]: MC0017, MC0017RTU7

Intended Use: For Research Use Only

Description: Lymphocyte activation gene-3 (LAG3), also known as CD223, is a protein expressed by activated CD4+ and CD8+ T cells. This protein binds to major histocompatibility complex (MHC) class II molecules with significantly higher affinity than CD4, and is associated with the T-cell receptor complex at the cell surface. It is hypothesized that LAG3 might act as an important negative competitor of CD4, to modulate T cell proliferation, function and homeostasis. Both MHC class II and LAG-3 are strongly upregulated in inflammatory responses. In tumor tissues, LAG3 has been detected in tumor infiltrating lymphocytes. Immunohistochemical analysis revealed LAG-3 expression was distributed on lymphocytes scattered in renal cell carcinoma, melanoma and lymphomas. They were also detected in the tumor stroma as well as in the peritumoral tissue. In melanoma, expression of MHC II has been associated with poor prognosis. Recently, a study demonstrated that LAG3 can prevent MHC II-positive melanoma cells from undergoing Fas-mediated apoptosis and also activate MAPK/Erk and PI3K/Akt survival pathways, conferring melanoma resistance to apoptosis and progression. Proper molecular regulation of T cell activation is critical for control of T cell homeostasis.

Specifications

Clone:	MD335
Source:	Mouse
Isotype:	IgG1
Reactivity:	Human
Immunogen:	Recombinant fragment aa300-500 of human LAG3 protein
Localization:	Membrane
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC

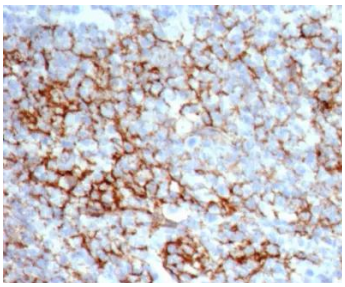
Package:

Description	Catalog No.	Size
LAG3 (CD223) Concentrated	MC0017	1 ml
LAG3 (CD223) Prediluted	MC0017RTU7	7 ml

IHC Procedure

Positive Control:	Tonsil, Hodgkins lymphoma
Concentrated Dilution:	50-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human tonsil stained with anti-LAG3 using DAB

References:

1. MHC class II engagement by its ligand LAG-3 (CD223) contributes to melanoma resistance to apoptosis. Hemon P, et al. J Immunol. May 1;186(9):5173-83, 2011.
2. Tumor-infiltrating NY-ESO-1-specific CD8+ T cells are negatively regulated by LAG-3 and PD-1 in human ovarian cancer. Matsuzaki J, et al. Proc Natl Acad Sci U S A. Apr 27;107(17):7875-80, 2010.
3. Immunological mechanisms elicited at the tumour site by lymphocyte activation gene-3 (LAG-3) versus IL-12: sharing a common Th1 anti-tumour immune pathway. Di Carlo E, et al. J Pathol. Jan;205(1):82-91, 2005.

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