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PE Anti-Human CD223 (LAG3) Antibody

Catalog Number:	117203, 117204
Size:	25 tests, 100 tests
Target Name:	CD223, LAG3, LAG-3, lymphocyte-activation gene-3
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	Relatimab
Application:	Flow Cytometry
Reactivity:	Human
Format:	PE
Isotype:	Human IgG4
Antibody Type:	Monoclonal
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
Protein Concentration:	Supplied at a lot-specific concentration.
Storage&Handling:	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Recommended Usage:	For flow cytometric staining, it is recommended to use 5 µL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application. PE has an excitation max at 565 nm and an emission max at 575 nm.
Excitation Laser:	Blue Laser (488 nm) Green/Yellow laser (532/561nm)
Isotype Control:	301309

BACKGROUND INFORMATION

Human CD223 (LAG-3) is an inhibitory immune checkpoint receptor expressed on activated T cells, regulatory T cells, NK cells, and dendritic cells. It is a type I transmembrane glycoprotein of the immunoglobulin superfamily with four extracellular Ig-like domains, a single transmembrane region, and a cytoplasmic tail containing inhibitory motifs including KIEELE. CD223 is upregulated after T-cell receptor activation and limits immune responses to maintain peripheral tolerance. It binds MHC class II with high affinity, competing with CD4, and also interacts with fibrinogen-like protein 1 (FGL1), contributing to immune regulation in tumor environments and immune modulation.

CD223 plays a key role in immune evasion in cancer and chronic infection by promoting T-cell exhaustion and reducing cytokine production, proliferation, and cytotoxic function. It is frequently co-expressed with PD-1 on exhausted tumor-infiltrating lymphocytes. While important for preventing autoimmunity, sustained signaling suppresses anti-tumor immunity and supports tumor progression. It is also upregulated during chronic viral infection due to persistent antigen stimulation making it a major target in immunotherapy strategies and ongoing clinical research efforts.

Relatimab is an investigational monoclonal antibody targeting CD223 (LAG-3) that blocks ligand binding to restore T-cell activity. By inhibiting interactions with MHC-II and FGL1, it reduces T-cell exhaustion and enhances anti-tumor responses. It is studied in oncology, often combined with PD-1/PD-L1 inhibitors to improve immune activation and clinical outcomes in cancer therapy within current immunotherapy development strategies and trials ongoing.