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iF647 Anti-Human CD134 (OX40) Antibody

Catalog Number:	117101, 117102
Size:	25 tests, 100 tests
Target Name:	CD134, OX40, TNFRSF4
Regulatory Status:	RUO

PRODUCT DETAILS

Clone:	Ivuxolimab
Application:	Flow Cytometry
Reactivity:	Human
Format:	iF647
Isotype:	Human IgG2
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. iF647 has an excitation max at 656 nm and an emission max at 670 nm.
Excitation Laser:	Red Laser (633 nm)
Isotype Control:	302905
GeneID:	7293
RRID:	AB_3759093

BACKGROUND INFORMATION

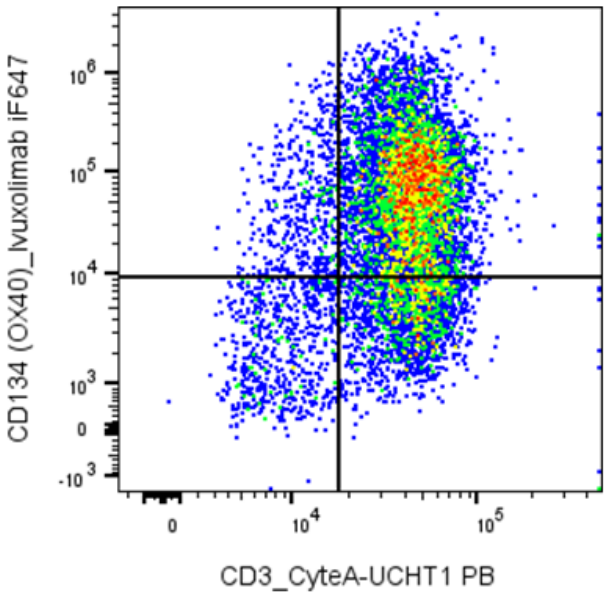
Human CD134, also known as OX40 or TNFRSF4, is a co-stimulatory immune checkpoint receptor expressed primarily on activated CD4+ and CD8+ T cells, as well as subsets of regulatory T cells. It belongs to the tumor necrosis factor receptor superfamily and is upregulated after T-cell receptor engagement. Structurally, CD134 is a type I transmembrane glycoprotein containing multiple extracellular cysteine-rich domains, a single transmembrane region, and a cytoplasmic tail that recruits TRAF adaptor proteins to initiate downstream NF-κB and MAPK signaling pathways that promote T-cell survival and proliferation.

CD134 binds its cognate ligand CD252 (OX40L), which is expressed on antigen-presenting cells such as dendritic cells, B cells, and activated endothelial cells. Ligand engagement stabilizes T-cell activation, enhances effector cytokine production, and supports

memory T-cell formation. In disease, OX40 signaling contributes to chronic inflammation and autoimmunity when dysregulated, but is also essential for effective anti-viral and anti-tumor immune responses. Overexpression of OX40/OX40L axis activity has been observed in several cancers, where it can paradoxically reflect ongoing immune activation yet insufficient tumor clearance.

Ivuxolimab is an investigational monoclonal antibody targeting human CD134 (OX40). It is designed to activate OX40 signaling, enhancing effector T-cell responses and anti-tumor immunity while modulating regulatory T-cell suppression in tumors. Clinically, OX40 agonism is studied in cancer immunotherapy, often combined with PD-1 or PD-L1 inhibitors to improve durable immune responses in clinical research settings and translational studies ongoing.

PRODUCT DATA



Human peripheral blood lymphocytes stimulated with Anti-Human CD3/CD28 for 3-days were stained with PB Anti-Human CD3 clone UCHT1 and i F647 Anti-Human CD134 (OX40) clone Ivuxolimab.

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