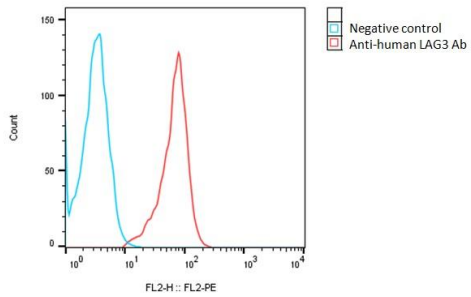
Cynomolgus LAG-3-CHO-K1 Stable Cell Line
Catalog Number: C3071

SPECIFICATIONS

Catalog Number	C3071
Cell Line Name	Cynomolgus LAG-3-CHO-K1 stable cell line
Accession Number	XP_045220577.1
Host Cell	Adherent CHO-K1
Quantity	Two vials of frozen cells ($2x10^6$ per vial)
Culture Medium	DMEM with 10% FBS, 4μg/ml puromycin
Freezing Medium	90% FBS and 10% DMSO
Storage	Liquid nitrogen

DATA

Detection of human LAG-3 expression on cynomolgus LAG-3-CHO-K1 stable cells using a PE anti-human LAG-3 antibody (BioLegend, Cat. #369305).



BACKGROUND

LAG-3 (Lymphocyte-activation gene 3) is a protein receptor in the immunoglobulin superfamily expressed on various immune cells. LAG-3 interacts with major histocompatibility complex class II (MHC-II) molecules on antigen-presenting cells (APCs) to regulate T cell activation and tolerance. By binding to MHC-II, LAG-3 can negatively regulate the activation and proliferation of T cells, promoting immune tolerance and preventing excessive immune responses. LAG-3 is involved in maintaining immune homeostasis and preventing autoimmunity. The expression of LAG-3 in cancer is often upregulated in tumor-infiltrating lymphocytes (TILs) and exhausted T cells within the tumor microenvironment leading to immune dysfunction and impaired antitumor immune responses. Tumor cells may exploit the LAG-3 pathway to evade immune surveillance and promote immune tolerance, thereby facilitating tumor growth and metastasis. The unique property of LAG-3 as an immune checkpoint molecule has led to its exploration as a potential therapeutic target in cancer immunotherapy.

References

Woo SR, Turnis ME, Goldberg MV, et al. Immune inhibitory molecules LAG-3 and PD-1 synergistically regulate T-cell function to promote tumoral immune escape. *Cancer Res.***72**:917-927.2012.

Maruhashi T, Sugiura D, Okazaki IM, et al. LAG-3 inhibits the activation of CD4+ T cells that recognize stable pMHCII through its conformation-dependent recognition of pMHCII. *Nat Immunol.*;**19**:1415-1426.2018.

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