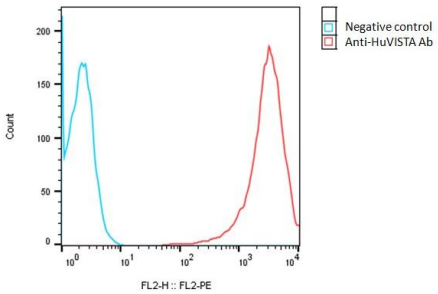
Human VISTA-CHO-K1 Stable Cell Line
Catalog Number: C3046

SPECIFICATIONS

Catalog Number	C3046
Cell Line Name	Human VISTA-CHO-K1 stable cell line
Accession Number	NP_071436.1
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 VISTA expression on human VISTA-CHO-K1 stable cells using a monoclonal antibody specific for human VISTA (Accurus #A1024), followed by staining with PE-anti human antibody.



BACKGROUND

Human VISTA (V-domain Ig suppressor of T cell activation) is a transmembrane protein belonging to the immunoglobulin superfamily. The function of VISTA is primarily to suppress the activation and proliferation of T cells, thereby preventing excessive immune responses that could lead to tissue damage or autoimmune diseases. VISTA achieves this by interacting with its ligands, which are expressed on the surface of various immune cells, and inhibiting downstream signaling pathways that promote T cell activation. In addition, VISTA activity with macrophages helps reduce production of pro-inflammatory cytokines and increase anti-inflammatory mediators to regulate immune response. VISTA expression has been implicated in various cancers. Studies have shown that VISTA is upregulated in certain types of cancers, including lung cancer, ovarian cancer, and breast cancer with its over-expression suggesting that VISTA may play a role in tumor progression and immune evasion. Given its role in regulating immune responses, VISTA has emerged as a potential therapeutic target for cancer immunotherapy. Strategies aimed at blocking VISTA signaling, such as monoclonal antibody-based therapies, have shown promising results in preclinical studies and early-phase clinical trials.

References

Wang L, Rubinstein R, Lines JL, et al. VISTA, a novel mouse Ig superfamily ligand that negatively regulates T cell responses. *J Exp Med.* **208(3)**:577-592. 2011.

Yuan L, Tatineni J, Mahoney KM, Freeman GJ. VISTA: A Mediator of Quiescence and a Promising Target in Cancer Immunotherapy. *Trends Immunol.* **42(3)**:209-227. 2021.

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