

Cynomolgus B7-H3-CHO-K1 Stable Cell Line

Catalog Number: C3053

SPECIFICATIONS

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Cell Line Name Cynomolgus B7-H3-CHO-K1 stable cell line

Accession Number XP_015308534.1

Host Cell Adherent CHO-K1

 Quantity
 Two vials of frozen cells $(2x10^6 \text{ per vial})$

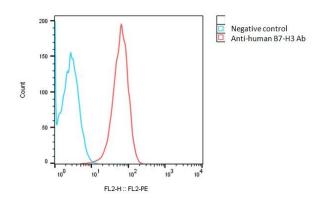
 Culture Medium
 DMEM with 10% FBS, $4\mu\text{g/ml}$ puromycin

Freezing Medium 90% FBS and 10% DMSO

Storage Liquid nitrogen

DATA

Detection of cyno B7-H3 expression on cyno B7-H3-CHO-K1 stable cells using a PE-anti-human B7-H3 antibody (BioLegend, #331606)



BACKGROUND

B7-H3, also known as CD276, is a cell surface protein that belongs to the B7 family of immune regulatory molecules. B7-H3 has two isoforms determined by its extracellular domain. In mice, the extracellular domain consists of a single pair of immunoglobulin variable (IgV)-like and immunoglobulin constant (IgC)-like domains, whereas in humans it consists of one pair (2Ig-B7-H3) or two identical pairs (4Ig-B7-H3) due to exon duplication. B7-H3 mRNA is expressed in most normal tissues. Flow cytometric analysis demonstrated inducible expression of B7H3 on monocytes, dendritic cells, and T cells after stimulation with selected cytokines and mitogens. B7-H3 protein is expressed at high frequency on many different cancer types (60% of all cancers). B7-H3 has both costimulatory and coinhibitory properties that can affect the proliferation of CD4+ and CD8+ T cells, production of cytokines, and activity of T cells and NK cells depending on the microenvironment. B7-H3 also exhibits nonimmunological pro-tumorigenic functions such as migration and invasion, apoptosis, cell viability and chemoresistance.

References

Chapoval AI, Ni J, Lau JS, et al. B7-H3: a costimulatory molecule for T cell activation and IFN-gamma production. Nat Immunol. 2:269-274. 2001.

Zhou WT, Jin WL. B7-H3/CD276: An Emerging Cancer Immunotherapy. Front Immunol. 12:701006. 2021.

Picarda E, Ohaegbulam KC, Zang X. Molecular Pathways: Targeting B7-H3 (CD276) for Human Cancer Immunotherapy. Clin Cancer Res. 22:3425-3431. 2016.