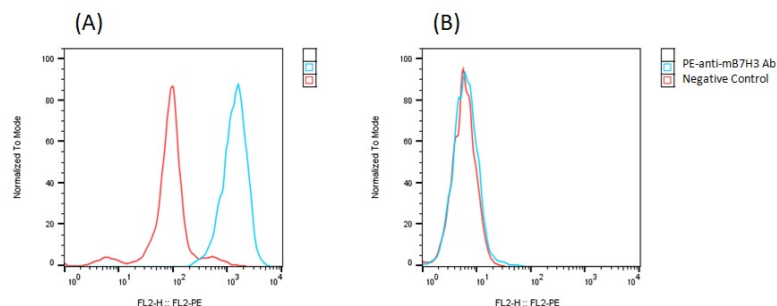


**SPECIFICATIONS**

<b>Catalog Number</b>	C3101
<b>Cell Line Name</b>	Rat B7-H3-CHO-K1 stable cell line
<b>Accession Number</b>	NM_182824.2
<b>Host Cell</b>	Adherent CHO-K1
<b>Quantity</b>	Two vials of frozen cells (2x10 <sup>6</sup> per vial)
<b>Culture Medium</b>	DMEM with 10% FBS, 4 µg/ml puromycin
<b>Freezing Medium</b>	90% FBS and 10% DMSO
<b>Storage</b>	Liquid nitrogen

**DATA**

Detection of Rat B7-H3 expression on Rat B7-H3-CHO-K1 stable cells (A) and Vector control-CHO-K1 stable cells (B) using PE-anti-mouse B7-H3 Ab (BioLegend, #124507).


**THAWING AND CULTURING**

- Remove the cell vial from liquid nitrogen tank and thaw cells quickly in a 37°C water bath
- Transfer the cells to a 15 ml centrifuge tube and slowly add 5 ml of pre-warmed complete growth medium
- Centrifuge the cells at 200x g for 5 min
- Remove the supernatant
- Resuspend cell pellet with 7 ml of complete growth medium and transfer cells to a T25 flask
- Incubate cells in an incubator with 5% CO<sub>2</sub> at 37°C
- Split the cells twice a week or as needed.

**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<sup>+</sup> and CD8<sup>+</sup> 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.

*Disclaimer: For research use only. Not for use in humans.*