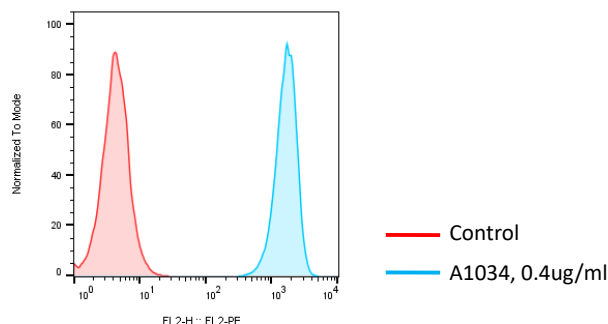


SPECIFICATIONS

Catalog Number	A1034
Product Name	Anti-human B7-H3 antibody
Source	Mouse hybridoma
Clone	4A6
Species Reactivity	Human B7-H3, cross-react to cynomolgus, mouse and hamster B7-H3
Isotype	mouse IgG2b
Formulation	1x PBS, pH7.0. Sterile
Stability & Storage	1 month at 4°C; 12 months at <-20°C; Avoid repeated freeze-thaw
Purity	>95%
Protein Aggregation	Not obvious on SDS-PAGE
Application	Flow cytometry, ELISA, cell-based assay

DATA

- A.** Detection of human B7-H3 expression on a human B7-H3-CHO-K1 cell line (Cat.#C3092) by flow cytometry. Anti-human B7-H3 mouse monoclonal antibody 4A6 (Cat.#A1034) was incubated with human B7-H3-CHO-K1 cells (Cat.#C3092), followed by staining with PE-anti-mouse IgG.



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.

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