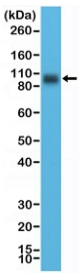
Recombinant CD276 Antibody RM335 / B7-H3 Cytoplasmic Domain Antibody [clone RM335] (R20359)

Catalog No.	Formulation	Size
R20359-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

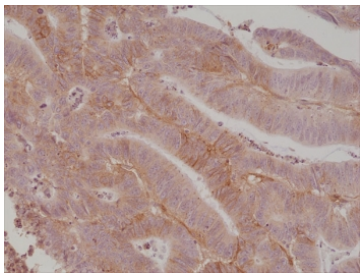
Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM335
Purity	Protein A purified from animal origin-free supernatant
UniProt	Q5ZPR3
Localization	Cell surface, cytoplasm
Applications	Immunohistochemistry (FFPE): 1:500-1:1000 Western blot: 1:5000-1:10000
Limitations	This Recombinant CD276 Antibody RM335 / B7-H3 Cytoplasmic Domain Antibody is available for research use only.



Recombinant CD276 Antibody RM335 WB Analysis of Human LNCaP Cells. Western blot analysis of human LNCaP cell lysate using B7-H3 Cytoplasmic Domain Antibody clone RM335 at a 1:10,000 dilution. An immunoreactive band is indicated at approximately 100-110 kDa, within the reported molecular weight range of CD276. B7-H3 is a heavily glycosylated transmembrane protein with an expected apparent molecular weight of approximately 57-110 kDa, depending on its glycosylation state.



Recombinant CD276 Antibody RM335 IHC Analysis of Human Colon Cancer Tissue. Immunohistochemical analysis of formalin-fixed, paraffin-embedded human colon cancer tissue using B7-H3 Cytoplasmic Domain Antibody clone RM335 at a 1:1,000 dilution. Brown DAB staining is observed throughout malignant epithelial structures, with prominent cytoplasmic immunoreactivity and staining along portions of the cellular boundaries. Hematoxylin provides nuclear counterstaining.

Description

Recombinant CD276 Antibody RM335 / B7-H3 Cytoplasmic Domain Antibody recognizes CD276, also known as B7-H3, a type I transmembrane glycoprotein belonging to the B7 family of immunoregulatory proteins. CD276 contains extracellular immunoglobulin-like domains, a membrane-spanning segment, and a relatively short intracellular C-terminal region. The protein occurs in forms containing two or four extracellular immunoglobulin-like domains, with the four-domain form predominating in humans. Extensive glycosylation contributes to its molecular characteristics and apparent molecular weight. The cytoplasmic domain distinguishes the intracellular portion of this membrane protein from its extracellular regions involved in cellular interactions.

B7-H3 has attracted considerable attention because of its complex involvement in immune regulation. Early studies described costimulatory effects on T-cell proliferation and interferon-gamma production, whereas subsequent investigations identified inhibitory effects on T-cell activation and cytokine secretion. These contrasting findings suggest that CD276 functions depend on cellular context, interacting partners, and experimental conditions. Although several candidate receptors have been proposed, its principal physiological receptor and the mechanisms governing its immunoregulatory activity remain incompletely established.

The intracellular region of CD276 is relatively short and lacks well-characterized signaling motifs commonly associated with certain immune receptors. Consequently, the mechanisms connecting B7-H3 expression to intracellular signaling remain subjects of investigation. Experimental studies have associated CD276 with pathways influencing cellular migration, invasion, metabolism, and resistance to stress. However, whether these effects arise through direct intracellular interactions, extracellular receptor engagement, or indirect signaling mechanisms is not fully understood.

Elevated CD276 expression has been reported in numerous malignancies, including prostate, breast, ovarian, lung, and colorectal cancers. Expression may occur in malignant cells and tumor-associated stromal or vascular compartments. In several tumor types, increased B7-H3 abundance correlates with aggressive disease characteristics and unfavorable clinical outcomes, although these associations vary across cancer types.

The distribution of B7-H3 in malignant tissues has encouraged investigation of antibody-based therapies, antibody-drug conjugates, and engineered cellular therapies directed against CD276-expressing cells. Recombinant CD276 Antibody RM335 provides a reagent for examining this protein and investigating its relationship to immune regulation, tumor progression, and cellular interactions within the tumor microenvironment.

For additional characterization of this tumor-associated immunoregulatory protein, see our CD276 Antibody B7H3/4345, a mouse monoclonal antibody supported by immunohistochemistry, western blot, and human protein microarray specificity data.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Recombinant CD276 Antibody RM335 / B7-H3 Cytoplasmic Domain Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the C-terminus of human CD276 (B7-H3) was used as the immunogen for the recombinant CD276 antibody.

Storage

Store the recombinant CD276 antibody at -20oC.

Alternate Names

B7-H3 cytoplasmic domain antibody, CD276 intracellular domain antibody, B7-H3 C-terminal antibody, CD276 recombinant monoclonal antibody, B7 homolog 3 antibody, B7RP-2 antibody

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