Active Cluster Of Differentiation 276 (CD276)

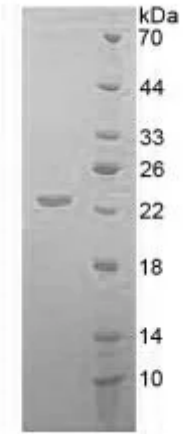
Catalog#:PEH12493

概述（Summary）

别称（Alternative Names）	B7-H3; B7H3; CD276 Molecule; B7 homolog 3; Costimulatory molecule
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Thr47-Ser219】
Accession #	Q5ZPR3
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	22.4 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Earlier studies found that B7H3 (also known as B7H3) promotes the activation of T cells. Chapoval et al. confirmed that in the presence of anti-CD3 antibodies, B7H3 can promote the proliferation of CD4 and CD8+ T cells and selectively promote the secretion of IFN-γ. And B7H3 transfection into tumor cells can enhance the killing ability of CTL. Further research found that only TLT-2 transgenic cells could bind to mouse B7H3 with high affinity, and TLT-2 was determined to be the receptor molecule of B7H3. Moreover, Hashiguchi et al. confirmed that the B7H3-TLT-2 pathway enhanced T cell activation. However, Leitner et al. did not find the specific binding of B7H3 to TLT-2 by flow

cytometry, therefore, the exact receptor molecule of B7H3 is still unclear.On the other hand, studies have found that B7H3 can also suppress T-cell immune responses. Some studies have shown that B7H3 can inhibit human and mouse T cells by activating or inhibiting NFTA (nuclear factor for activated T cells), NF-KB (nuclear factor kB) and AP-1 (activator protein-1) pathways. activation. In addition, results have demonstrated that B7H3 may inhibit T cell immune responses by inhibiting the activity of Thl. The study of Leiner et al. also found that B7H3 can down-regulate the secretion of IL-2 in T cells to inhibit the activity of T cells.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

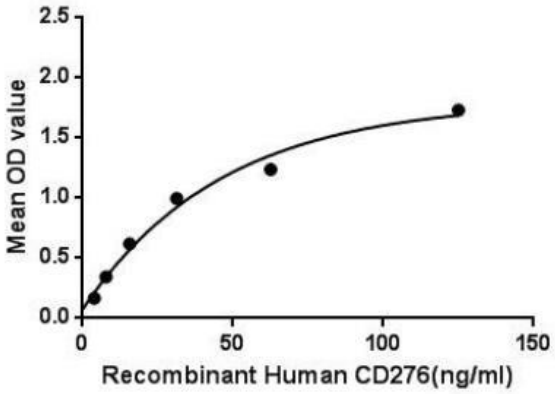


Figure 1. The binding activity of CD276 with SIGLEC12.

Cluster Of Differentiation 276 (CD276) also known as B7-H3 in human, is a member of the B7/CD28 superfamily of costimulatory molecules serving as an accessory modulator of T-cell response. B7 proteins are immunoglobulin (Ig) superfamily members with

extracellular Ig-V-like and Ig-C-like domains and short cytoplasmic domains. Among the family members, they share about 20-40% amino acid (aa) sequence identity. CD276 may play a protective role in tumor cells by inhibiting natural-killer mediated cell lysis as well as a role of marker for detection of neuroblastoma cells. It has also been found to enhance the induction of primary cytotoxic T lymphocytes and stimulate IFN-gamma production. Besides, Sialic acid-binding Ig-like lectin 12 (SIGLEC12) has been identified as an interactor of CD276, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CD276 and recombinant human SIGLEC12. Briefly, CD276 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to SIGLEC12-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CD276 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of CD276 and SIGLEC12 was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

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