

Product Data Sheet

CD276/B7-H3 Protein, Human (HEK293, C-His)

Cat. No.:	HY-P74316
Synonyms:	B7H3; B7-H3B7 homolog 3; CD276; Costimulatory molecule
Species:	Human
Source:	HEK293
Accession:	Q5ZPR3 (L29-T461)
Gene ID:	80381
Molecular Weight:	Approximately 68 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

Background The CD276/B7-H3 protein is suggested to play a multifaceted role in the regulation of T-cell-mediated immune responses, potentially acting as a protective factor in tumor cells by inhibiting natural-killer-mediated cell lysis and serving as a marker for the detection of neuroblastoma cells. Additionally, CD276/B7-H3 may be involved in the development of acute and chronic transplant rejection, contributing to the regulation of lymphocytic activity at mucosal surfaces. Notably, it could play a crucial role in providing the placenta and fetus with an immunologically suitable environment throughout pregnancy. Both isoform 1 and isoform 2 of CD276/B7-H3 appear redundant in their ability to modulate CD4 T-cell responses, with isoform 2 demonstrated to enhance the induction of cytotoxic T-cells and selectively stimulate interferon-gamma production in the presence of T-cell receptor signaling. The interaction with TREML2 is identified as enhancing T-cell activation, highlighting the diverse roles CD276/B7-H3 may play in immune regulation and cellular responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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