

## CD276, Human, Recombinant, 0.1 mg

Catalog Number 5123

### DESCRIPTION

The protein encoded by human CD276 gene belongs to the immunoglobulin superfamily, and thought to participate in the regulation of T-cell-mediated immune response. Studies show that while the transcript of this gene is ubiquitously expressed in normal tissues and solid tumors, the protein is preferentially expressed only in tumor tissues. Additionally, it was observed that the 3' UTR of this transcript contains a target site for miR29 microRNA, and there is an inverse correlation between the expression of this protein and miR29 levels, suggesting regulation of expression of this gene product by miR29.

Full-length extracellular domain of human CD276 gene (29 - 466 aa) was constructed with 29 N-terminal T7/His tag and expressed in *E. coli* as inclusion bodies. The final product was refolded using a unique "temperature shift inclusion body refolding" technology and chromatographically purified.

### Characteristics

Parameter, Testing, and Method	CD276, Human, Recombinant Catalog # 5123
Quantity	0.1 mg (100 µg/vial)
Volume	0.1 mL
Concentration	1.0 mg/mL
Purity	≥90% as measured by SDS PAGE
Formulation	Formulated in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, L-Arginine, DTT and Glycerol.
Form	Solution
Production Type	Recombinant – <i>E. coli</i>
Storage Temperature	-20 °C
Shelf Life	12 months after receipt
Sterilization Method	Filtration
Cell Attachment Activity	Passes
Sterility	No growth
Gene Symbols	CD276 (4Ig-B7-H3; B7-H3; B7H3)
Accession	NP_001019907

Number	
Recombinant Protein Sequence	MASMTGGQQMGRGHHHHHHGNLY FQGEVQVPEDPVVALVGTDTLCCS FSPEPGFSLAQLNLIWQLTDTKQLVH SFAEGQDQGSAYANRTALFPDLAQ GNASLRLQRVVADEGSFTCFVSIR DFGSAAVSLQVAAPYSKPSMTLEPN KDLRPGDVTITCSSYQGYPEAEVF WQDGGQVPLTGNVTTSQMANEQGL FDVHSILRVVLGANGTYSCLVRNPVL QQDAHSSVTITPQRSPTGAVEVQVP EDPVVALVGTDTLRCFSPEPGFS LAQLNLIWQLTDTKQLVHSFTEGRD QGSAYANRTALFPDLAQGNASLRL QRVVADEGSFTCFVIRDFGSAAV SLQVAAPYSKPSMTLEPNKDLRPGD TVTITCSSYRGYPEAEVFWQDGGQV PLTGNVTTSQMANEQGLFDVHSVLR VVLGANGTYSCLVRNPVLQQDAHGS VTITGQPMTFPEA

### APPLICATIONS

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

### INSTRUCTIONS FOR USE

Use these recommendations as guidelines to determine the optimal coating conditions for your culture system.

1. Thaw CD276 and dilute to desired concentration using serum-free medium or PBS. The final solution should be sufficiently dilute so that the volume added covers the surface evenly. Note: Use 1 ml PBS per well in a 6-well plate.
2. Add 1 – 10 µg protein to each well and incubate at 2 to 10°C overnight.
3. After incubation, aspirate remaining material.
4. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

Coating this recombinant protein at 1-10 µg / well (6 well plate) in T cell specific medium can be used 1) for human T cell / receptor interaction study *in vitro* or 2) as a highly purified recombinant antigen as cancer biomarker for diagnosis application development.

## REFERENCES

- (1) Calabro, L., et al. Expression and regulation of B7-H3 immunoregulatory receptor, in human mesothelial and mesothelioma cells: immunotherapeutic implications. *J. Cell. Physiol.* 226 (10), 2595-2600 (2011)
- (2) I., et al. B7-H3: a costimulatory molecule for T cell activation and IFN-gamma production. *Nat. Immunol.* 2 (3), 269-274 (2001)