

CD270, Human, Recombinant, 0.1 mg

Catalog Number 5127

DESCRIPTION

The protein encoded by human tumor necrosis factor receptor superfamily member 14 (TNFRSF14, CD270) gene is a member of the TNF-receptor superfamily. This receptor was identified as a cellular mediator of herpes simplex virus (HSV) entry. Binding of HSV viral envelope glycoprotein D (gD) to this receptor protein has been shown to be part of the viral entry mechanism. The cytoplasmic region of this receptor was found to bind to several TRAF family members, which may mediate the signal transduction pathways that activate the immune response.

Recombinant human CD270 extracellular domain cDNA (39 - 202 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal and expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

CHARACTERISTICS

Parameter, Testing, and Method	CD270, Human, Recombinant Catalog # 5127
Quantity	0.1 mg (100 µg/vial)
Volume	0.2 mL
Concentration	0.5 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	Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days
Shelf Life	12 months after receipt
Sterilization Method	Filtration
Cell Attachment Activity	Passes
Sterility	No growth
Accession No.	NP_003811.2

Recombinant Sequence	MASMTGGQQMGRGHHHHHHGNLYFQG^G EFLPSCKEDEYVPGSECCPKCSPGYRVKEA CGELTGTVCEPCPPGTIAHLNGLSKLQCQ MCDPAMGLRASRNCRTENAVCGCSPGHF CIVQDGDHCAACRAYATSSPGQRVQKGGTE SQDTLCQNCPPGTFSPNGTLEECQHQTCKS WLVTKAGAGTSSSHWV
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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 CD270 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.
2. Add appropriate amount of diluted material to culture surface.
3. Incubate at room temperature for approximately 1 – 2 hours.
4. Aspirate remaining material.
5. Rinse plates carefully with dH₂O– avoid scratching bottom surface of plates.
6. Plates are ready for use. They may also be stored at 2-8°C damp or air dried if sterility is maintained.

Note: Coating this recombinant protein at 5-10 ug / well (6 well plate) in a specific culture medium may be used as coating matrix protein for human T or B cell functions and differentiation regulation study *in vitro*, as potential biomarker protein for infectious diseases and auto-immuno disease diagnostic development or as an antigen for specific antibody production.

REFERENCES

- (1) Montgomery, R.I., Herpes simplex virus-1 entry into cells mediated by a novel member of the TNF/NGF receptor family. *Cell* 87 (3), 427-436 (1996)
- (2) Kwon, B.S., et al., A newly identified member of the tumor necrosis factor receptor superfamily with a wide tissue distribution and involvement in lymphocyte activation. *J. Biol. Chem.* 272 (22), 14272-14276 (1997)
- (3) Schaer, C., et al., HVEM signaling promotes colitis. *PLoS ONE* 6 (4), E18495 (2011)