

## Technical Data Sheet

**Oligo Mouse Anti-Human HVEM (CD270)**

## Product Information

Material Number:	940097
Size:	25 Tests
Clone:	CW10
Alternative Name:	TNFRSF14; HVEM; HVEA; LIGHTR ; ATAR ; TR2
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG1, $\kappa$
Immunogen:	Human Recombinant Protein
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	AACGATAGATTGCCGAAAGCGATAGAGATTGGAACG
SeqID:	AHS0105
Volume Per Test:	2 $\mu$ l
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

**Description**

The CW10 monoclonal antibody specifically binds to HVEM (Herpes virus entry mediator). HVEM is also known as CD270, Tumor necrosis factor receptor-like 2 (TR2), or LIGHT Receptor (LIGHT-R). CD270 is a type I transmembrane protein and member of the TNF Receptor superfamily. It is encoded by TNFRSF14 (tumor necrosis factor receptor superfamily member 14). CD270 is expressed on T cells, B cells, NK cells, monocytes, granulocytes, and some dendritic cells. CD270 binds to Lymphotoxin  $\alpha$  (LT $\alpha$ 3/TNF $\beta$ ), CD258/LIGHT, CD272/BTLA, and glycoprotein D of Herpes simplex viruses HSV-1 and HSV-2. CD270-LIGHT interactions can reportedly transduce costimulatory signals for T cells whereas CD270-BTLA interactions can deliver inhibitory signals to T cells.

## Application Notes

The antibody was conjugated to an oligonucleotide that contains an antibody clone-specific barcode (ABC) flanked by a poly-A tail on the 3' end and a PCR handle (PCR primer binding site) on the 5' end. The ABC for this antibody was designed to be used with other BD AbSeq oligonucleotides conjugated to other antibodies. All AbSeq ABC sequences were selected in silico to be unique from human and mouse genomes, have low predicted secondary structure, and have high Hamming distance within the BD AbSeq portfolio, to allow for sequencing error correction and unique mapping. The poly-A tail of the oligonucleotide allows the ABC to be captured by the BD Rhapsody™ system or other oligo-dT-based capture systems. The 5' PCR handle allows for efficient sequencing library generation for Illumina sequencing platforms.

**Preparation and Storage Section**

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography and conjugated to BD AbSeq oligonucleotide under optimal conditions.

**Recommended Assay Procedure**

Put all BD AbSeq Reagents to be pooled into a Latch Rack for 500  $\mu$ L Tubes (Thermo Fisher Scientific Cat. No. 4900). Arrange the tubes so that they can be easily uncapped and re-capped with an 8-Channel Screw Cap Tube Capper (Thermo Fisher Scientific Cat. No. 4105MAT) and the reagents aliquoted with a multi-channel pipette.

BD AbSeq tubes should be centrifuged for  $\geq 30$  seconds at 400  $\times$  g to ensure removal of any content in the cap/tube threads prior to the first opening.

**Suggested Companion Products**

Catalog Number	Name	Size	Clone
633701	Single-Cell Analysis System RUO	1 Each	
554656	Stain Buffer (FBS) RUO	500 mL	
564219	Human BD Fc Block™ RUO	50 mg	

## Product Notices

1. This reagent has been pre-diluted for use at the recommended volume per test. Typical use is 2 µl for 1 × 10<sup>6</sup> cells in a 200-µl staining reaction.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Please refer to [bd.com/genomics-resources](http://bd.com/genomics-resources) for technical protocols.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. This product is covered by one or more of the following patents: US 8,835,358; US 9,290,808; US 9,290,809; US 9,315,857; US 9,567,645; US 9,567,646; US 9,598,736; US 9,708,659; and US 9,816,137. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. Diagnostic uses require a separate license.
7. Illumina is a trademark of Illumina, Inc.

## References

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