

Technical Data Sheet

Oligo Mouse Anti-Human V#2 TCR

Product Information

Material Number:	940297
Size:	25 Tests
Clone:	B6
Alternative Name:	TCR Vδ2
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG1, κ
Immunogen:	Human TCR Vδ2 Recombinant Protein
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	TGTTAGAGGGTAGAGGTCGTATAGGGTCGGCAATGT
SeqID:	AHS0220
Volume Per Test:	2 μl
Entrez Gene ID:	28517
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The B6 monoclonal antibody specifically recognizes the human variable δ2 subunit (Vδ2) of the γ/δ T cell receptor (TCR). The γ/δ TCR is composed of two disulfide linked glycoproteins. The delta chain is approximately 40-60 kDa and is restricted to peripheral blood T cells and thymocytes. The majority of normal peripheral blood γ/δ T cells express a Vγ9[+]/Vδ2[+] phenotype. The reason for this selection in the T-cell repertoire is not well understood.

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. The 5' PCR handle allows for efficient sequencing library generation for Illumina sequencing platforms.

NOTE: The BD Rhapsody Single-Cell Analysis System must be used with the BD Rhapsody Express Instrument.

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 μL 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 ≥ 30 seconds at 400 × 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
554656	Stain Buffer (FBS) RUO	500 mL	
633701	Single-Cell Analysis System RUO	1 Each	
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 × 10⁶ cells in a 200-µl staining reaction.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. 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.
4. 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.
5. Illumina is a trademark of Illumina, Inc.
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. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
8. Please refer to bd.com/genomics-resources for technical protocols.

References

Barclay NA, Brown MH, Birkeland ML, et al, ed. The Leukocyte Antigen FactsBook. San Diego, CA: Academic Press; 1997; .
 Breit TM, Wolvers-Tettero IL, van Dongen JJ. Receptor diversity of human T-cell receptor gamma delta expressing cells. Prog Histochem Cytochem. 1992; 26(1-4):182-193.
 De Libero G, Rocci MP, Casorati G, et al. T cell receptor heterogeneity in gamma delta T cell clones from intestinal biopsies of patients with celiac disease.. Eur J Immunol. 1993; 23(2):499-504.
 Kabelitz D. Function and specificity of human gamma/delta-positive T cells. Crit Rev Immunol. 1992; 11(5):281-303.

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