

Technical Data Sheet

Oligo Mouse Anti-Human NKp44 (CD336)

Product Information

Material Number:	940085
Size:	25 Tests
Clone:	p44-8
Alternative Name:	CD336; NCR2; NCTR2; NKp44; NK-p44; LY95; dJ149M18.1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1, κ
Immunogen:	Human NKp44
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	AATGCAAACGATATCACGAAGGGTAGTACACGACGG
SeqID:	AHS0090
Volume Per Test:	2 μ l
Entrez Gene ID:	9436
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

Description

The p44-8 monoclonal antibody specifically binds to the natural killer (NK) cell receptor, NKp44, which is also known as CD336, Natural cytotoxicity triggering receptor 2 (NCR2), or Lymphocyte antigen 95 homolog (Ly95). NKp44 is a ~44 kDa type I transmembrane protein that belongs to the natural cytotoxicity receptor (NCR) family within the immunoglobulin superfamily. NKp44 is expressed by activated NK cells. NKp44 serves as an activating receptor that can enhance NK cell mediated lysis of target cells including tumor cells and virus-infected cells. Killer activating receptor associated protein (KARAP), which is also known as DAP12, is an intracellular adaptor protein that can associate with the intracellular region of NKp44. DAP12 can then function to help transmit activating signals through its immunoreceptor tyrosine-based activation motif (ITAM).

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

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 μ 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 ≥ 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
554656	Stain Buffer (FBS)	500 mL
564219	Human BD Fc Block™	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. 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 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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Moretta L, Moretta A. Unravelling natural killer cell function: triggering and inhibitory human NK receptors. *EMBO J*. 2004; 23(2):255-259.

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