

Technical Data Sheet

Oligo Rat Anti-Human Integrin #7

Product Information

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| Material Number: | 940244 |
| Size: | 25 Tests |
| Clone: | FIB504 |
| Alternative Name: | Itgb7; Integrin β 7; Integrin beta 7; ITB7; Ly-69; Ly69 |
| Reactivity: | Human (Tested in Development) |
| Isotype: | Rat F344, also known as Fischer, CDF IgG2a, κ |
| Immunogen: | Mouse T lymphoma line TK1 |
| Application: | Single Cell 3' Sequencing (Qualified) |
| Barcode Sequence: | TTTCAGTTTGGTCGCAGTTAAGGTATCGTATGGGTC |
| SeqID: | AHS0158 |
| Volume Per Test: | 2 μ l |
| Workshop No.: | VI A024, VI 6T-101 |
| Storage Buffer: | Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide. |
| Regulatory Status: | RUO |

Description

The FIB504 monoclonal antibody specifically recognizes mouse integrin β 7 subunit (130 kDa) but also crossreacts with human integrin β 7. Integrin β 7 associates with α 4 (CD49d) expressed on subsets of lymphocytes and thymocytes. It also associates with α IEL (CD103) expressed on T cells adjacent to mucosal epithelium and intraepithelial lymphocytes. Integrin β 7 plays an important role in the adhesion of leukocytes to endothelial cells promoting the transmigration of leukocytes to extravascular spaces during the inflammatory response.

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

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 |
| 633701 | Single-Cell Analysis System | 1 Each |
| 564219 | Human BD Fc Block™ | 50 mg |

Product Notices

1. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
2. 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.
3. 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.
4. Illumina is a trademark of Illumina, Inc.
5. Please refer to bd.com/genomics-resources for technical protocols.
6. 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.
7. 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.
8. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).

References

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