

Technical Data Sheet

Oligo Mouse Anti-Human IgG

Product Information

Material Number:	940027
Size:	25 Tests
Clone:	G18-145
Alternative Name:	IGHG1, IGHG2, IGHG3 and IGHG4
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG1, κ
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	AGGTAGGTTATCGTAGGGTAGACTTAGCGGGCATTG
SeqID:	AHS0059
Volume Per Test:	2 μ l
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

Description

IgG is an important component of the humoral immune response, helping to control infection. IgG is produced by plasma B-cells and may be found in extracellular fluids, such as blood, lymph, peritoneal, and cerebrospinal fluids. IgG monomers consist of two light and two heavy chains containing two antigen binding sites. There are four IgG subclasses found in human, mouse and rat species, which include IgG1, IgG2, IgG3 and IgG4. The G18-145 monoclonal antibody specifically binds to the heavy chain of human immunoglobulin G subclasses: IgG1, IgG2, IgG3 and IgG4. The G18-145 antibody has been reported not to react with the heavy chains of other human immunoglobulin isotypes.

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 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	Clone
564219	Human BD Fc Block™ RUO	50 mg	
633701	Single-Cell Analysis System RUO	1 Each	
554656	Stain Buffer (FBS) RUO	500 mL	
564220	Human BD Fc Block™ RUO	0.25 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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