

Technical Data Sheet

Oligo Mouse Anti-Human CD326

Product Information

Material Number:	940084
Size:	25 Tests
Clone:	EBA-1
Alternative Name:	EPCAM; EGP; ESA; GA733-2; hEGP-2; KSA; M4S1; MIC18; MK-1; TACSTD1; TROP1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG1, λ
Immunogen:	Breast carcinoma-associated mucin BCA-225
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	TTGAGCGTAAAGTTGCGTCCGGTAATTGAGTTGCGT
SeqID:	AHS0089
Volume Per Test:	2 μ l
Entrez Gene ID:	4072
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

Description

The EBA-1 monoclonal antibody specifically binds to human CD326. CD326 is an approximately 40 kDa type 1 transmembrane glycoprotein and adhesion molecule that mediates intercellular adhesive interactions. CD326 is also known as epithelial adhesion molecule (EpCAM), epithelial glycoprotein 2 (EGP-2), and epithelial surface antigen (ESA). The epithelial cells present in non-squamous epithelia and tumors derived from such cells show EpCAM expression. The normal epithelial cells reactive with anti-EpCAM antibodies are those present in the (lower) respiratory tract; the (lower) gastrointestinal tract; tubules in the kidney; the surface epithelium of the ovary; the exocrine and endocrine pancreas; secondary germ cells of telogenic hair follicles; and secretory tubules of sweat glands in the skin, whereas the epidermis is negative. In addition, all epithelial cells in the thyroid and epithelial cells in the thymus show EpCAM expression, while the outer cortex and Hassall's corpuscles have low expression. In the liver, only the bile ducts appear to be positive with anti-EpCAM antibodies. Non-squamous- carcinoma cells have high EpCAM expression; some squamous carcinoma cells. Tumors arising from non-epithelial cells, such as lymphoma, mesothelioma, neuroblastoma, and melanoma, do not express EpCAM.

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
633701	Single-Cell Analysis System	1 Each
564220	Human BD Fc Block™	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.

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