Technical Data Sheet

R718 Rat Anti-Mouse CD26

Product Information

Material Number:	752573
Size:	50 µg
Clone:	H194-112
Alternative Name:	Cd26; Dpp4; dipeptidylpeptidase 4; THAM, DPP IV
Reactivity:	Tested in Development:Mouse
Isotype:	Rat LOU, also known as Louvain, LOU/C, LOU/M IgG2a, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The H194-112 monoclonal antibody specifically binds to CD26, which is also known as, Thymocyte-activating molecule (THAM), or dipeptidyl peptidase IV (DPP IV, Dpp4). CD26 is a ~220- kDa dimer formed of identical type-II transmembrane core polypeptides which undergo variable post-translational modifications. It is a multi-functional molecule with both ectopeptidase and signal-transducing activities. Studies with specific DPP IV inhibitors suggest that the enzymatic activity is involved in the mediation of T-cell activation events. The expression of CD26 is developmentally regulated in the thymus. Resting lymphoid cells of the bone marrow and peripheral B and T lymphocytes express low levels of CD26; bone-marrow and peritoneal myeloid cells do not. CD26 is also found on epithelial cells in the kidney, liver, small intestine, and lung. Cross-linked H194-112 mAb induces proliferation of immature and mature thymocytes in the presence of either IL-1 plus IL-2 or PMA; addition of IL-2 or IL-4 to PMA further enhances the activation.

The antibody was conjugated to BD Horizon Red 718, which has been developed exclusively for BD Biosciences as a better alternative to Alexa Fluor™ 700. BD Horizon Red 718 can be excited by the red laser (628 – 640 nm) and, with an Em Max around 718 nm, it can be detected using a 730/45 nm filter. Due to similar excitation and emission properties, we do not recommend using R718 in combination with APC-R700 or Alexa Fluor™ 700.

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. The antibody was conjugated to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size
553141	Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)	0.1 mg
554657	Stain Buffer (BSA)	500 mL
554656	Stain Buffer (FBS)	500 mL
555899	Lysing Buffer	100 mL
566941	R718 Rat IgG2a, κ Isotype Control	50 µg

Product Notices

1. Researchers should determine the optimal concentration of this reagent for their individual applications.
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. An isotype control should be used at the same concentration as the antibody of interest.
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. Alexa Fluor™ is a trademark of Life Technologies Corporation.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. This product is provided under an Agreement between BIOTIUM and BD Biosciences. 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. This product is for research use only. Diagnostic uses require a separate license from Biotium, Inc. For information on purchasing a license to this product including for purposes other than research, contact Biotium, Inc., 3159 Corporate Place, Hayward, CA 94545, Tel: (510) 265-1027. Fax: (510) 265-1352. Email: btinfo@biotium.com.

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