Technical Data Sheet

FITC Rat Anti-Mouse CD26

Product Information

Material Number: 559652

Alternate Name: THAM, DPP IV

 Size:
 0.1 mg

 Concentration:
 0.5 mg/ml

 Clone:
 H194-112

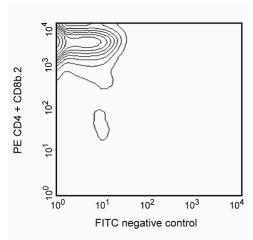
Immunogen: Cell-surface molecules solubilized from BALB/c mouse thymocytes

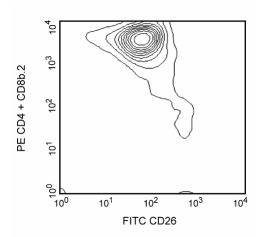
Isotype:Rat (LOU) IgG2a, κ Reactivity:QC Testing: Mouse

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The H194-112 antibody reacts with thymocyte-activating molecule (THAM), homologous to human CD26 (dipeptidyl peptidase IV, DPP IV). 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.





Two-color analysis of the expression of CD26 on mouse thymocytes. A single-cell suspension of C57BL/6 thymus was simultaneously stained with PE-conjugated RM4-5 (anti-mouse CD4, Cat. no. 553048/553049, both panels), PE-conjugated 53-5.8 (anti-mouse CD8b.2, Cat. no. 553041, both panels), and FITC-conjugated H194-112 (Right panel) monoclonal antibodies. Flow cytometry was performed on a FACScan^a (BDIS, San Jose, CA).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone	
553048	PE Rat Anti-Mouse CD4	0.1 mg	RM4-5	
553049	PE Rat Anti-Mouse CD4	0.2 mg	RM4-5	
553041	PE Rat Anti-Mouse CD8b.2	0.1 mg	53-5.8	
553929	FITC Rat IgG2a, κ Isotype Control	0.25 mg	R35-95	

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 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.

References

Vivier I, Marguet D, Naquet P. Evidence that thymocyte-activating molecule is mouse CD26 (dipeptidyl peptidase IV). *J Immunol*. 1988; 147(2):447-454.(Biology) Fleischer B. CD26: a surface protease involved in T-cell activation. *Immunol Today*. 1994; 15(4):180-184.(Biology)

Gorvel JP, Vivier I, Naquet P, Brekelmans P, Rigal A, Pierres M. Characterization of the neutral aminopeptidase activity associated to the mouse thymocyte-activating molecule. *J Immunol.* 1990; 144(8):2899-2907.(Biology)

Marguet D, Bernard AM, Vivier I, Darmoul D, Naquet P, Pierres M. cDNA cloning for mouse thymocyte-activating molecule. A multifunctional ecto-dipeptidyl peptidase IV (CD26) included in a subgroup of serine proteases. *J Biol Chem.* 1992; 267(4):2200-2208.(Biology)

Naquet P, MacDonald HR, Brekelmans P. A novel T cell-activating molecule (THAM) highly expressed on CD4-CD8- murine thymocytes. *J Immunol.* 1988; 141(12):4101-4109.(Immunogen: Activation)

Naquet P, Vivier I, Gorvel JP. Activation of mouse T lymphocytes by a monoclonal antibody to a developmentally regulated surface aminopeptidase (THAM). Immunol Rev. 1989; 111:177-193.(Clone-specific: Activation)

Reinhold D, Bank U, Buhling F. Inhibitors of dipeptidyl peptidase IV (DP IV, CD26) induces secretion of transforming growth factor-beta 1 (TGF-beta 1) in stimulated mouse splenocytes and thymocytes. *Immunol Lett.* 1997; 58(1):29-35.(Biology: Activation)

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