SANTA CRUZ BIOTECHNOLOGY, INC.

CD26 (202.36): sc-7633

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CD26 (dipeptidylpeptidase 4, adenosine deaminase complexing protein 2, ADABP, ADCP2, DPPIV, TP103) is a membrane glycoprotein and a serine exopeptidase that cleaves X-proline dipeptides from the N-terminus of polypeptides. CD26 has an essential role in immune regulation as a T cell activation molecule and a regulator of chemokine function. CD26 associates with CXCR4 and gp120 and may influence the pathophysiology of HIV infection. Adenosine deaminase (ADA) co-localizing with adenosine receptors on dendritic cells are able to interact with CD26 expressed on lymphocytes. This costimulatory signal in the immunological synapse leads to an increase in the production of the T helper 1 and proinflammatory cytokines IFN-γ, TNFα and IL-6. CD26 plays a role in the pathogenesis and behavior of human cancers, including solid tumors and hematological malignancies. CD26-caveolin-1 interaction plays a role in the upregulation of CD86 on TT-loaded monocytes and subsequent engagement with CD28 on T cells, leading to antigen-specific T cell activation.

REFERENCES

1. McMaster, W.R., et al. 1979. Identification of Ia glycoproteins in rat thymus and purification from rat spleen. Eur. J. Immunol. 9: 426-433.
2. Dang, N.H., et al. 1991. 1F7 (CD26): a marker of thymic maturation involved in the differential regulation of the CD3 and CD2 pathways of human thymocyte activation. J. Immunol. 147: 2825-2832.
3. Tanaka, T., et al. 1992. Cloning and functional expression of the T cell activation antigen CD26. J. Immunol. 149: 481-486.

CHROMOSOMAL LOCATION

Genetic locus: DPP4 (human) mapping to 2q24.2.

SOURCE

CD26 (202.36) is a mouse monoclonal antibody raised against a human T cell clone.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD26 (202.36) is available conjugated to agarose (sc-7633 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7633 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7633 PE), fluorescein (sc-7633 FITC), Alexa Fluor® 488 (sc-7633 AF488), Alexa Fluor® 546 (sc-7633 AF546), Alexa Fluor® 594 (sc-7633 AF594) or Alexa Fluor® 647 (sc-7633 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-7633 AF680) or Alexa Fluor® 790 (sc-7633 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CD26 (202.36) is recommended for detection of CD26 of human origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10^6 cells).

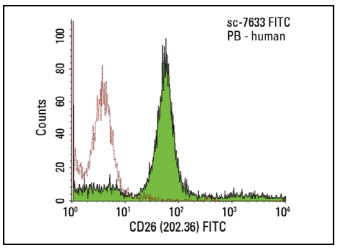
Suitable for use as control antibody for CD26 siRNA (h): sc-42762, CD26 shRNA Plasmid (h): sc-42762-SH and CD26 shRNA (h) Lentiviral Particles: sc-42762-V.

Molecular Weight of CD26: 110 kDa.

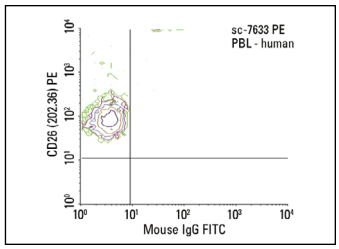
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD26 (202.36) FITC: sc-7633 FITC. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgG_{2b}-FITC: sc-2857.



CD26 (202.36) PE: sc-7633 PE. FCM analysis of human peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal mouse IgG_{2b}-PE: sc-2868.

SELECT PRODUCT CITATIONS

1. Sato, T., et al. 2005. CD26 regulates p38 mitogen-activated protein kinase-dependent phosphorylation of integrin β1, adhesion to extracellular matrix, and tumorigenicity of T-anaplastic large cell lymphoma Karpas 299. Cancer Res. 65: 6950-6956.
2. Liu, Z., et al. 2009. A CD26-controlled cell surface cascade for regulation of T cell motility and chemokine signals. J. Immunol. 183: 3616-3624.
3. Hung, T.T., et al. 2009. Epitope analysis of the rat dipeptidyl peptidase IV monoclonal antibody 6A3 that blocks pericellular fibronectin-mediated cancer cell adhesion. FEBS J. 276: 6548-6559.
4. Abe, M., et al. 2011. Mechanisms of confluence-dependent expression of CD26 in colon cancer cell lines. BMC Cancer 11: 51.
5. Lettau, M., et al. 2020. Degranulation of human cytotoxic lymphocytes is a major source of proteolytically active soluble CD26/DPP4. Cell. Mol. Life Sci. 77: 751-764.

RESEARCH USE

For research use only, not for use in diagnostic procedures.