

# CD26 (BA5): sc-19607

## 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) colocalizing 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- $\gamma$ , TNF- $\alpha$ , 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 up-regulation 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.
4. Abbott, C.A., et al. 1994. Genomic organization, exact localization, and tissue expression of the human CD26 (dipeptidyl peptidase IV) gene. *Immunogenetics* 40: 331-338.
5. Fleischer, B. 1994. CD26: a surface protease involved in T-cell activation. *Immunol. Today* 15: 180-184.
6. Dong, R.P. and Morimoto, C. 1996. Role of CD26 for CD4 memory T cell function and activation. *Hum. Cell* 9: 153-162.

## CHROMOSOMAL LOCATION

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

## SOURCE

CD26 (BA5) is a mouse monoclonal antibody raised against human thymic T lymphocyte clone.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD26 (BA5) is available conjugated to either phycoerythrin (sc-19607 PE) or fluorescein (sc-19607 FITC), 200  $\mu$ g/ml, for IF, IHC(P) and FCM.

## STORAGE

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

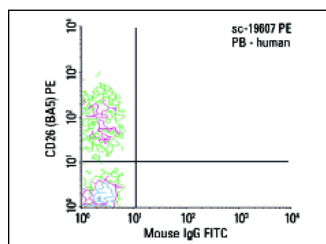
## APPLICATIONS

CD26 (BA5) is recommended for detection of CD26 of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> 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.

## DATA



CD26 (BA5) PE: sc-19607 PE. FCM analysis of human peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal mouse IgG<sub>2a</sub>-PE: sc-2867.

## SELECT PRODUCT CITATIONS

1. van der Velden, H.M., et al. 2009. The universal detection of antigens from one skin biopsy specimen. *J. Cutan. Pathol.* 36: 972-979.
2. Hebert, C.G., et al. 2010. Biological nanofactories target and activate epithelial cell surfaces for modulating bacterial quorum sensing and interspecies signaling. *ACS Nano* 4: 6923-6931.
3. van der Velden, H.M., et al. 2010. Treatment of plaque psoriasis with the two-compound product calcipotriol/betamethasone dipropionate versus both monotherapies: an immunohistochemical study. *J. Dermatolog. Treat.* 21: 13-22.
4. Justa-Schuch, D., et al. 2016. DPP9 is a novel component of the N-end rule pathway targeting the tyrosine kinase Syk. *Elife* 5: e16370.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.