

# CD26 (OX61): sc-53039

## 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.
7. Bauvois, B., et al. 2000. Regulation of CD26/DPPIV gene expression by interferons and retinoic acid in tumor B cells. *Oncogene* 19: 265-272.

## CHROMOSOMAL LOCATION

Genetic locus: Dpp4 (mouse) mapping to 2 C1.3.

## SOURCE

CD26 (OX61) is a mouse monoclonal antibody raised against purified Ia glycoprotein of rat origin.

## PRODUCT

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

CD26 (OX61) is available conjugated to either phycoerythrin (sc-53039 PE) or fluorescein (sc-53039 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

## APPLICATIONS

CD26 (OX61) is recommended for detection of CD26 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 (m): sc-42763, CD26 shRNA Plasmid (m): sc-42763-SH and CD26 shRNA (m) Lentiviral Particles: sc-42763-V.

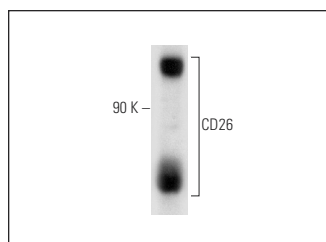
Molecular Weight of CD26: 110 kDa.

Positive Controls: rat kidney extract: sc-2394.

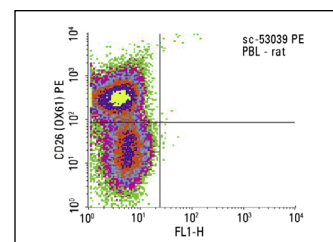
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CD26 (OX61): sc-53039. Western blot analysis of CD26 expression in rat kidney tissue extract.



CD26 (OX61): sc-53039. Indirect FCM analysis of rat peripheral blood leukocytes stained CD26 (OX61), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Quadrant markers were set based on the isotype control, normal mouse IgG<sub>2a</sub>: sc-3878.

## STORAGE

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

## RESEARCH USE

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

## CONJUGATES

See **CD26 (5E8): sc-52642** for CD26 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.