

# CD15s (CHO131): sc-32243

## BACKGROUND

Selectins are comprised of a family of carbohydrate-binding proteins involved in mediating cellular interactions with leukocytes. Selectins regulate leukocytes in the blood to lymphoid organs and sites of inflammation, and are also thought to play a role in the dissemination of carcinomas that express sialylated Lewis glycan structures, such as sialyl-Lewis X, also known as sLex or CD15s. Core 2 O-glycans, which are synthesized by an essential enzyme C2GnT1 (core 2  $\beta$ 1,6 N-acetylglucosaminyltransferase) in leukocytes, serve as high-affinity selectin glycan ligands when terminated with CD15s (C2-O-sLex). The CD15s antigen functions as a carbohydrate determinant that is recognized by all members of the selectin family. C2-O-sLex is highly unregulated in colorectal adenocarcinomas and metastatic liver tumors and therefore suggested to be a tumor associated antigen and a useful early predictor of metastasis.

## REFERENCES

1. Cummings, R.D. and Smith, D.F. 1992. The selectin family of carbohydrate-binding proteins: structure and importance of carbohydrate ligands for cell adhesion. *Bioessays* 14: 849-856.
2. Nelson, R.M., et al. 1993. Higher-affinity oligosaccharide ligands for E-Selectin. *J. Clin. Invest.* 91: 1157-1166.
3. Welply, J.K., et al. 1994. Multivalent sialyl-Lex: potent inhibitors of E-Selectin-mediated cell adhesion; reagent for staining activated endothelial cells. *Glycobiology* 4: 259-265.
4. Jacob, G.S., et al. 1995. Studies on selectin-carbohydrate interactions. *Adv. Exp. Med. Biol.* 376: 283-290.
5. Walcheck, B., et al. 2002. The monoclonal antibody CHO-131 binds to a core 2 O-glycan terminated with sialyl-Lewis X, which is a functional glycan ligand for P-Selectin. *Blood* 99: 4063-4069.

## CHROMOSOMAL LOCATION

Genetic locus: FUT4 (human) mapping to 11q21.

## SOURCE

CD15s (CHO131) is a mouse monoclonal antibody raised against CD15s of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD15s (CHO131) is available conjugated to either phycoerythrin (sc-32243 PE) or fluorescein (sc-32243 FITC), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM.

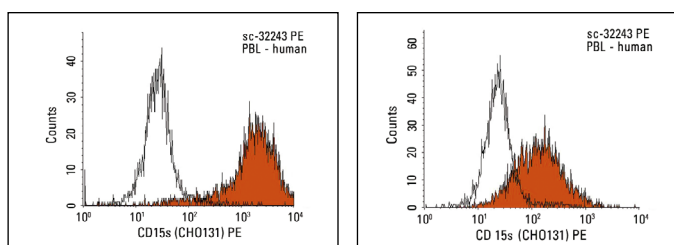
## APPLICATIONS

CD15s (CHO131) is recommended for detection of CD15s of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CD15s (CHO131): sc-32243. Indirect FCM analysis of human peripheral blood leukocytes stained with CD15s (CHO131), followed by PE-conjugated goat anti-mouse IgM: sc-3768. Black line histogram represents the isotype control, normal mouse IgM-PE: sc-2870.

CD 15s (CHO 131) PE: sc-32243 PE. FCM analysis of human peripheral blood leukocytes. Black line histogram represents the isotype control, normal mouse IgM-PE: sc-2870.

## SELECT PRODUCT CITATIONS

1. Xu, J., et al. 2009. Equine PSGL-1 modifications required for P-Selectin binding. *Vet. Immunol. Immunopathol.* 131: 33-43.
2. Theodoraki, M.N., et al. 2018. Separation of plasma-derived exosomes into CD3<sup>+</sup> and CD3<sup>-</sup> fractions allows for association of immune cell and tumour cell markers with disease activity in HNSCC patients. *Clin. Exp. Immunol.* 192: 271-283.
3. Liu, J., et al. 2019. Co-expression of Lewis y antigen and CD147 in epithelial ovarian cancer is correlated with malignant progression and poor prognosis. *Int. J. Mol. Med.* 43: 1687-1698.
4. Theodoraki, M.N., et al. 2019. Circulating exosomes measure responses to therapy in head and neck cancer patients treated with cetuximab, ipilimumab, and IMRT. *Oncoimmunology* 8: 1593805.
5. Do, A.D., et al. 2021. Antagonistic activities of *Lactobacillus rhamnosus* JB3 against *Helicobacter pylori* infection through lipid raft formation. *Front. Immunol.* 12: 796177.
6. Wang, X., et al. 2022. miR-519d-3p released by human blastocysts negatively regulates endometrial epithelial cell adhesion by targeting HIF1 $\alpha$ . *Int. J. Mol. Med.* 50: 123.

## 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.