

# galectin-8 (C-8): sc-377133

## BACKGROUND

Several proteins have been identified as specific markers of prostate cancer, and they may be useful as diagnostic indicators. PSA, prostate specific antigen, is the classical indicator for transformed prostate tissue; however, in addition to being up-regulated in prostate cancer, PSA is also up-regulated in non-malignant conditions, such as benign prostatic hyperplasia prostate. galectin-8, also known as prostate-specific membrane antigen (PCTA-1), is an additional prostate-specific antigen that is overexpressed only in malignant tumors and therefore is a more specific identifier of malignancies. It is a member of the galectin gene family which mediates both cell-cell and cell-matrix interactions in a manner similar to the selectin subgroup of C-type lectins.

## REFERENCES

1. Pretlow, T.G., et al. 1991. Tissue concentrations of prostate-specific antigen in prostatic carcinoma and benign prostatic hyperplasia. *Int. J. Cancer* 49: 645-649.
2. Israeli, R.S., et al. 1993. Molecular cloning of a complementary DNA encoding a prostate-specific membrane antigen. *Cancer Res.* 53: 227-230.
3. Su, Z.Z., et al. 1996. Surface-epitope masking and expression cloning identifies the human prostate carcinoma tumor antigen gene PCTA-1 a member of the galectin gene family. *Proc. Natl. Acad. Sci. USA* 93: 7252-7257.
4. Wang, F.L., et al. 1996. Two differentially expressed genes in normal human prostate tissue and in carcinoma. *Cancer Res.* 56: 3634-3637.
5. Ideo, H., et al. 2003. The N-terminal carbohydrate recognition domain of galectin-8 recognizes specific glycosphingolipids with high affinity. *Glycobiology* 13: 713-723.

## CHROMOSOMAL LOCATION

Genetic locus: LGALS8 (human) mapping to 1q43.

## SOURCE

galectin-8 (C-8) is a mouse monoclonal antibody raised against amino acids 141-220 mapping within an internal region of galectin-8 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

galectin-8 (C-8) is available conjugated to agarose (sc-377133 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377133 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377133 PE), fluorescein (sc-377133 FITC), Alexa Fluor® 488 (sc-377133 AF488), Alexa Fluor® 546 (sc-377133 AF546), Alexa Fluor® 594 (sc-377133 AF594) or Alexa Fluor® 647 (sc-377133 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377133 AF680) or Alexa Fluor® 790 (sc-377133 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## RESEARCH USE

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

## APPLICATIONS

galectin-8 (C-8) is recommended for detection of galectin-8 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for galectin-8 siRNA (h): sc-37429, galectin-8 shRNA Plasmid (h): sc-37429-SH and galectin-8 shRNA (h) Lentiviral Particles: sc-37429-V.

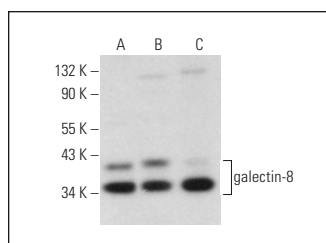
Molecular Weight of galectin-8: 35 kDa.

Positive Controls: SUP-T1 whole cell lysate: sc-364796, Hep G2 cell lysate: sc-2227 or galectin-8 (h): 293 Lysate: sc-113277.

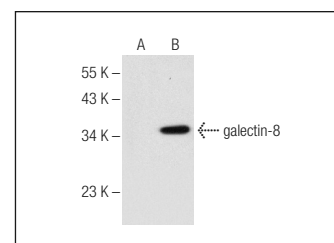
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



galectin-8 (C-8): sc-377133. Western blot analysis of galectin-8 expression in Hep G2 (A), SUP-T1 (B) and ZR-75-1 (C) whole cell lysates.



galectin-8 (C-8): sc-377133. Western blot analysis of galectin-8 expression in non-transfected (A) and human galectin-8 transfected: sc-113277 (B) 293 whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Sharma, S., et al. 2022. Use of glycoproteins-prostate-specific membrane antigen and galectin-3 as primary tumor markers and therapeutic targets in the management of metastatic prostate cancer. *Cancers* 14: 2704.
2. Zhu, H., et al. 2022. Prognostic value and biological function of galectins in malignant glioma. *Front. Oncol.* 12: 834307.

## STORAGE

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

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