

galectin-10 (D-8): sc-374395

BACKGROUND

Charcot-Leyden crystals are endogenous hexagonal bipyramidal crystals present in human tissues and secretions. Presence of Charcot-Leyden crystals correlates with the increased numbers of peripheral blood or tissue eosinophils that occurs with parasitic and allergic processes. Galectin-10, also referred to as Charcot-Leyden crystal (CLC) protein, singularly makes up these crystals. Galectin-10, a member of the galectin family of β -galactoside binding proteins that bind to S-type animal lectins, is expressed solely in eosinophilic and basophilic leukocytes. Galectin-10 may possess carbohydrate or IgE-binding activities, and it plays a functional role in the biology of inflammation. Expression of galectin-10 is transcriptionally induced by butyric acid.

REFERENCES

1. Gleich, G.J., et al. 1976. Comparative properties of the Charcot-Leyden crystal protein and the major basic protein from human eosinophils. *J. Clin. Invest.* 57: 633-640.
2. Weller, P.F., et al. 1982. Human eosinophil lysophospholipase: the sole protein component of Charcot-Leyden crystals. *J. Immunol.* 128: 1346-1349.
3. Calafat, J., et al. 1997. Ultrastructural localization of Charcot-Leyden crystal protein in human eosinophils and basophils. *Eur. J. Haematol.* 58: 56-66.
4. Dvorak, A.M., et al. 1997. Localization of Charcot-Leyden crystal protein phenotypes of human basophils stimulated by f-Met peptide. *Clin. Exp. Allergy* 27: 452-474.
5. Dyer, K.D., et al. 1997. The genomic structure of the human Charcot-Leyden crystal protein gene is analogous to those of the galectin genes. *Genomics* 40: 217-221.
6. Swaminathan, G.J., et al. 1999. Selective recognition of mannose by the human eosinophil Charcot-Leyden crystal protein (galectin-10): a crystallographic study at 1.8 Å resolution. *Biochemistry* 38: 13837-13843.

CHROMOSOMAL LOCATION

Genetic locus: CLC (human) mapping to 19q13.2.

SOURCE

galectin-10 (D-8) is a mouse monoclonal antibody raised against amino acids 65-104 mapping within an internal region of galectin-10 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

galectin-10 (D-8) is available conjugated to agarose (sc-374395 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374395 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374395 PE), fluorescein (sc-374395 FITC), Alexa Fluor[®] 488 (sc-374395 AF488), Alexa Fluor[®] 546 (sc-374395 AF546), Alexa Fluor[®] 594 (sc-374395 AF594) or Alexa Fluor[®] 647 (sc-374395 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374395 AF680) or Alexa Fluor[®] 790 (sc-374395 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

galectin-10 (D-8) is recommended for detection of galectin-10 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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-10 siRNA (h): sc-72087, galectin-10 shRNA Plasmid (h): sc-72087-SH and galectin-10 shRNA (h) Lentiviral Particles: sc-72087-V.

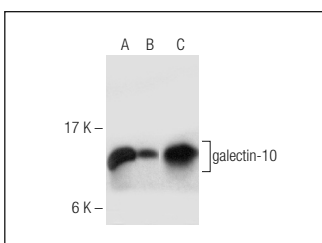
Molecular Weight of galectin-10: 17 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, human spleen extract: sc-363779 or HL-60 whole cell lysate: sc-2209.

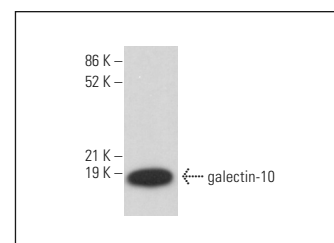
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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-10 (D-8): sc-374395. Western blot analysis of galectin-10 expression in human PBL (A) and CCRF-CEM (B) whole cell lysates and human spleen tissue extract (C).



galectin-10 (D-8): sc-374395. Western blot analysis of galectin-10 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ouyang, X., et al. 2019. Expression of Nup93 is associated with the proliferation, migration and invasion capacity of cervical cancer cells. *Acta Biochim. Biophys. Sin.* 51: 1276-1285.

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.