BACKGROUND

Galectins are a family of soluble β-galactoside-binding animal lectins that modulate cell-to-cell adhesion and cell-to-extracellular matrix (ECM) interactions and play a role in tumor progression, pre-mRNA splicing and apoptosis. The galectin-3 protein, also known as Mac-2, hMac-2, GALBP, CBP35 or LGALS3, contains a single carbohydrate binding domain, which binds galactose-containing glycoconjugates. Galectin-3 is expressed in colon and intestinal epithelium, inflammatory macrophages, papillary and follicular carcinomas, neoplastic astrocytes and some B and T lymphocytes. Upregulated expression of galectin-3 is involved in cancer progression and metastasis. Galectin-3 mediates the endocytosis of β1 integrins in a lactose-dependent manner and is associated with thyroid malignancy and Crohn's disease. It may also be used as a marker for diagnosing cases involving Hurltch cell adenomas and carcinomas.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: LGALS3 (human) mapping to 14q22.3.

SOURCE

galectin-3 (B-2) is a mouse monoclonal antibody raised against amino acids 1-160 of galectin-3 of human origin.

PRODUCT

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

APPLICATIONS

galectin-3 (B-2) is recommended for detection of galectin-3 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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), immunohistochemistry (including paraffin-embedded sections) (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-3 siRNA (h): sc-155994, galectin-3 shRNA Plasmid (h): sc-155994-SH and galectin-3 shRNA (h) Lentiviral Particles: sc-155994-V.

Molecular Weight of galectin-3: 31 kDa.

Positive Controls: A2058 whole cell lysate: sc-364178, COLO 205 whole cell lysate: sc-364177 or SW480 cell lysate: sc-2219.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

DATA

galectin-3 (B-2): sc-25279. Western blot analysis of galectin-3 expression in SW480 (A), A2058 (B), COLO 205 (C) and J774A1 (D) whole cell lysates and mouse skin tissue extract (E).

galectin-3 (B-2): sc-25279. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS


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.

PROTOCOLS

See our website at www.scbt.com for detailed protocols and support products.

See galectin-3 (B2C10): sc-32790 for galectin-3 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.