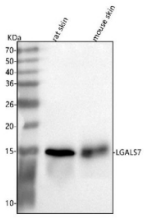
LGALS7/7B Antibody / Galectin 7 (FY12768)

Catalog No.	Formulation	Size
FY12768	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	P47929
Applications	Western Blot: 0.25-0.5ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This LGALS7/7B antibody is available for research use only.



Western blot analysis of Galectin-7/LGALS7 using anti-LGALS7/7B antibody. Lane 1: rat skin tissue lysates, Lane 2: mouse skin tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-LGALS7/7B antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for Galectin-7/LGALS7 at approximately 15 kDa. The expected molecular weight of Galectin-7/LGALS7 is at 15 kDa.

Description

LGALS7/7B antibody detects Galectin-7 (encoded by LGALS7 and its paralog LGALS7B), a beta-galactoside-binding lectin that regulates epithelial differentiation, apoptosis, and tissue repair. The Galectin-7 protein belongs to the galectin family, which is defined by its conserved carbohydrate recognition domain (CRD) that binds beta-galactosides on glycoproteins and glycolipids. Encoded primarily by LGALS7 on chromosome 19q13.2, and to a lesser extent by

LGALS7B (a highly similar duplicate), Galectin-7 acts as both an intracellular modulator of cell survival and an extracellular signaling molecule influencing cell adhesion and immune response.

Galectin-7 is expressed abundantly in stratified epithelia, including the skin, cornea, and mucosal linings. It plays an important role in maintaining epithelial homeostasis by regulating keratinocyte differentiation and apoptosis. Upon tissue injury or stress, Galectin-7 is upregulated and released into the extracellular matrix, where it modulates cell-cell adhesion and migration during wound healing. It binds to extracellular glycoproteins such as integrins and laminins, mediating epithelial remodeling and cell communication. In keratinocytes, Galectin-7 localization shifts between the cytoplasm and nucleus depending on differentiation and stress conditions.

At the cellular level, Galectin-7 interacts with intracellular proteins such as Bcl-2, promoting mitochondrial apoptosis under proapoptotic stimuli. It also influences p53-dependent transcriptional regulation of cell death genes. Through these pathways, Galectin-7 acts as a proapoptotic factor in damaged epithelial cells while promoting tissue regeneration. Overexpression of Galectin-7 enhances apoptosis and accelerates wound closure, whereas its loss impairs epithelial renewal and barrier integrity.

The LGALS7/7B antibody is widely used in epithelial biology, dermatology, and oncology research to study differentiation, apoptosis, and cell adhesion. Western blot analysis identifies a 15 kilodalton band corresponding to Galectin-7, and immunohistochemistry reveals strong cytoplasmic and nuclear staining in epithelial layers. This antibody enables analysis of Galectin-7 distribution in normal and neoplastic tissues, supporting studies of epithelial morphogenesis and repair.

In cancer, Galectin-7 shows context-dependent functionsÂ—it can suppress tumor progression in certain epithelial cancers by promoting apoptosis but can also enhance metastasis in others by regulating cell migration and extracellular matrix interactions. Altered expression has been reported in breast, cervical, and gastric cancers. The LGALS7/7B antibody is a critical reagent for understanding how glycan-binding proteins contribute to cancer cell plasticity, metastasis, and immune regulation. NSJ Bioreagents provides this antibody validated for its applications, ensuring reliable detection in epithelial and cancer research applications.

Application Notes

Optimal dilution of the LGALS7/7B antibody should be determined by the researcher.

Immunogen

E.coli-derived human LGALS7 recombinant protein (Position: M1-F136) was used as the immunogen for the LGALS7/7B antibody.

Storage

After reconstitution, the LGALS7/7B antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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