

PRODUCT INFORMATION

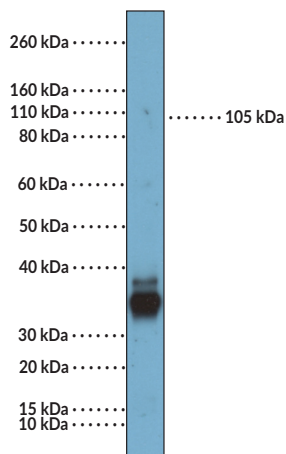
Galectin 9 Rabbit Monoclonal Antibody (Clone RM499)

Item No. 42851

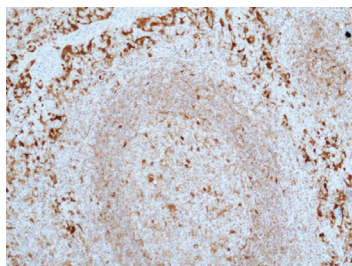
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Gal-9S, HUAT, Human Urate Transporter, Lectin Galactoside-binding Soluble 9, LGALS9A
Immunogen:	Peptide corresponding to the N-terminus of human galectin.
Cross Reactivity:	(+) Galectin9
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1.0 mg/ml
Clone:	RM499
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100 - 1:200 for IHC and 1:250 - 1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of Jurkat cell lysate using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:250.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

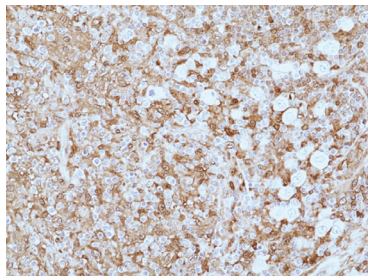
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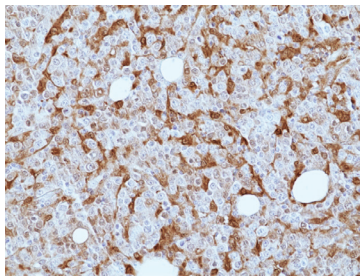
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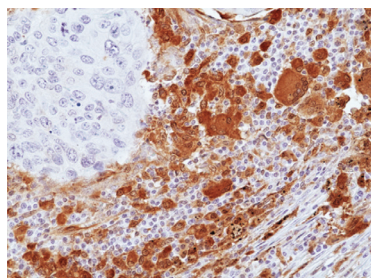
Images (continued)



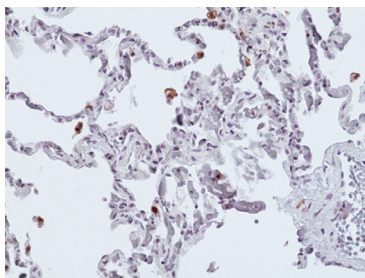
Immunohistochemical staining of formalin-fixed and paraffin-embedded human Hodgkin lymphoma tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



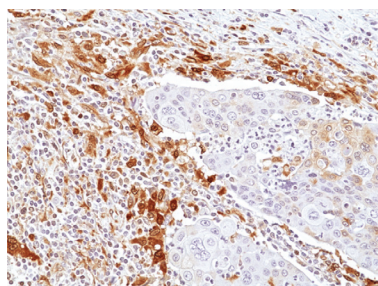
Immunohistochemical staining of formalin-fixed and paraffin-embedded human diffuse large B cell lymphoma tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



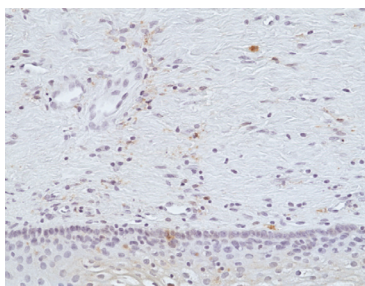
Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung squamous cell carcinoma tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



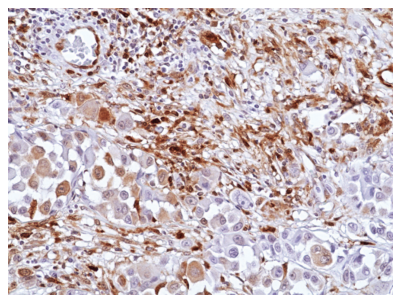
Immunohistochemical staining of formalin-fixed and paraffin-embedded human normal lung tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human cervix carcinoma tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human normal cervix tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human melanoma tissue sections using Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) at a dilution of 1:200.

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Description

Galectin 9 is a β -galactoside-binding protein encoded by the *LGALS9* gene and a member of the galectin family.¹ It contains two non-identical carbohydrate recognition domains (CRDs) joined by a peptide linker, the length of which depends on alternative splicing of the *LGALS9* gene, which produces a short, medium, or long variant of the protein.^{1,2} The non-identical CRDs are responsible for binding to different types of saccharide ligands with the N-terminal CRD (NCRD) preferring more complex glycoconjugates.¹ Galectin 9 is localized to the cytosol, nucleus, and extracellular matrix and is expressed primarily in immune-related tissues and cells.³ When expressed on immune or tumor cells, galectin 9 binds to glycosylated sites on the immunoregulatory protein TIM-3 and activates signaling that impairs immune synapse formation leading to T cell anergy or apoptosis.⁴ It also binds to the transmembrane glycoprotein CD44 on osteoblasts, leading to their proliferation, and it has a role in cell adhesion by preventing hyaluronic acid from binding to CD44.⁵ It activates CD4⁺ T cell populations and induces naïve T cells to acquire a central memory T cell (TCM) phenotype.⁶ Galectin 9 was originally identified as a tumor antigen in patients with Hodgkin's disease.¹ It is expressed to a lower extent in tumor cells compared with non-tumor cells but is increased in leukemia and colon cancer cell lines.³ Cayman's Galectin 9 Rabbit Monoclonal Antibody (Clone RM499) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Nagae, M., Nishi, N., Murata, T., *et al.* Crystal structure of the galectin-9 N-terminal carbohydrate recognition domain from *Mus musculus* reveals the basic mechanism of carbohydrate recognition. *J. Biol. Chem.* **281**(47), 35884-35893 (2006).
2. Chabot, S., Kashio, Y., Seki, M., *et al.* Regulation of galectin-9 expression and release in Jurkat T cell line cells. *Glycobiology* **12**(2), 111-118 (2002).
3. Heusschen, R., Griffioen, A.W., and Thijssen, V.L. Galectin-9 in tumor biology: A jack of multiple trades. *Biochim. Biophys. Acta* **1836**(1), 177-185 (2013).
4. Wolf, Y., Anderson, A.C., and Kuchroo, V.K. TIM3 comes of age as an inhibitory receptor. *Nat. Rev. Immunol.* **20**(3), 173-185 (2020).
5. John, S. and Mishra, R. Galectin-9: From cell biology to complex disease dynamics. *J. Biosci.* **41**(3), 507-534 (2016).
6. Gooden, M.J.M., Wiersma, V.R., Samplonius, D.F., *et al.* Galectin-9 activates and expands human T-helper 1 cells. *PLoS One* **8**(5), e65616 (2013).

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