

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name Galectin-3, Human, clone B2C10

Catalog number HM2186-100UG

Lot number xxxxxXxxxx-X

Expiry date MMM YYYY

Volume 1 ml

Amount 100 µg

Formulation 0.2 µm filtered in PBS+0.1%BSA

Concentration 100 µg/ml

Host Species Mouse IgG1

Conjugate None

Endotoxin <24 EU/mg

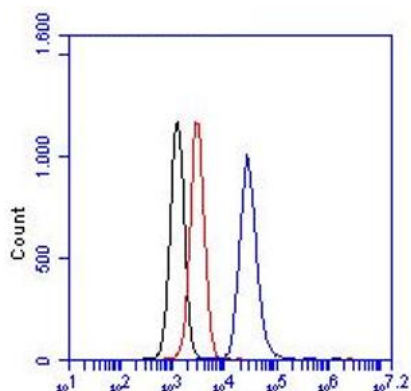
Purification Protein G

Storage 4°C

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	3	3		1,2	1,2	1		1
Yes	•	•		•	•	•		•
No								
N.D.			•				•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: detection of Galectin-3 in Huvec cells. Red, black and blue line represent the isotype control, cells only and HM2186 with a concentration of 10 µg/ml, respectively.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC: Endogenous peroxidase activity was blocked by incubation with 1.1% H₂O₂ for 10 minutes. Nonspecific binding of the second antibody was avoided by preincubation with normal rabbit serum for 15 minutes.
- FS: 10 µg/ml of B2C10, but not an isotype-matched control mAb, completely inhibited monocyte migration induced by galectin-3 at all concentrations examined (ref. 2).
- Positive control: Huvec cells

General Information

Description

The monoclonal antibody B2C10 reacts with galectin-3, a 30 kDa protein. Galectin-3 is a member of the galectin family. The protein is composed of three domains: a small amino-terminal domain, a carboxyl-terminal carbohydrate recognition domain (CRD) and amino-terminal domain containing repeating elements. Galectin-3 is normally distributed in epithelia of many organs and various inflammatory cells, including macrophages, as well as dendritic cells and Kupfer cells. The expression of this lectin is up-regulated during inflammation, cell proliferation, cell differentiation and through trans-activation by viral proteins. The expression is also affected by neoplastic transformation: up-regulated in certain types of lymphomas and thyroid carcinoma, while down-regulated in other types of malignancies, such as colon, breast, ovarian and uterine carcinomas. Galectin-3 has been shown to function through both intracellular and extracellular actions. Related to its intracellular functions, galectin-3 has been identified as a component of heterogeneous nuclear ribonuclear protein (hnRNP), a factor in pre-mRNA splicing, and has been found to control cell

cycle and prevent T cell apoptosis. On the other hand, this protein has also been demonstrated to function as extracellular molecule in activating various types of cells, including monocytes/macrophages, mast cells, neutrophils and lymphocytes. Galectin-3 has been shown to mediate cell-cell and cell-extracellular matrix interactions. The monoclonal antibody B2C10 inhibits the binding of 125I-labeled galectin-3 to IgE coated on microtiter plates, the galectin-3's hemagglutination activity and galectin-3-induced superoxide production by human neutrophils. This inhibitory activity of B2C10 is probably the result of its disruption of the self-association process. The epitope of the monoclonal antibody B2C10 is found within the first 45 amino acids of galectin-3. The antibody B2C10 does not react with Galectin-3C and is cross reactive with mouse galectin-3.

Immunogen	Recombinant human Galectin-3
Aliases	Gal-3, 35 kDa lectin, Carbohydrate-binding protein 35, Galactose-specific lectin 3, Galactoside-binding protein, GALBP, L-31, Laminin-binding protein, Lectin-L29, Mac-2antigen
Cross reactivity	Mouse: Yes; Human Galectin-3C: No.
Gene	Gene name: LGALS3
References	<ol style="list-style-type: none"> 1. Liu, F et al; Modulation of functional properties of galectin-3 by monoclonal antibodies binding to the non-lectin domains. <i>Biochemistry</i> 1996, 35: 6073 2. Sano, H et al; Human galectin-3 is a novel chemoattractant for monocytes and macrophages. <i>J Immunol</i> 2000, 165: 2156 3. Feilchenfeldt, J et al; Expression of galectin-3 in normal and malignant thyroid tissue by quantitative PCR and immunohistochemistry. <i>Mod Pathol</i> 2003, 16: 1117
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
05/12/2024

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.