MONOCLONAL ANTIBODY TO MOUSE ENDOMUCIN

clone V.7C7.1

Catalog no HM1108 (lot number and expiry date are indicated on the label)

Description The monoclonal antibody V.7C7.1 recognizes endomucin, type I membrane protein of 248 amino acids (75 kDa) and shows no signicant homology to any known glycoprotein. As a typical mucin-like glycoprotein, endomucin has a high content of serine and threonine residues, suggesting strong O-glycosylation; the sensitivity to O-sialoglycoprotein endopeptidase indicates that endomucin is also a sialomucin.

Endomucin is an endothelial-specific sialomucin. It is a constitutively expressed endothelial cell surface protein that is found on all venules but is absent from high endothelial venule cells (HEV) of peripheral and mesenteric lymph nodes as well as Peyer's patches, the specialized site for most efficient lymphocyte trafficking. This could indicate an anti-adhesive function of endomucin, as demonstrated for other sialomucins.

Mucosal addressin cell adhesion molecule 1 (MAdCAM-1) is another cell adhesion molecule that contains a mucin-like domain and is expressed on HEV in Peyer's patches, mesenteric lymph nodes and on venules in intestinal lamina propria. In the HEV of mesenteric lymph nodes, the mucin-like domain of a subpopulation of MAdCAM-1 molecules contains sulfated carbohydrate side chains that interact with L-selectin.

The presence of three putative protein kinase C phosphorylation sites in the cytoplasmic tail of endomucin indicates that endomucin has the capacity to be a signaling molecule.

Immunogen Mouse endomucin-IgG fusion protein

Aliases Endomucin-2, mucin-14, gastric cancer antigen Ga34

Species Rat IgG_{2a}

Cross reactivity

Cross reactant	Reactivity (Yes/No)
Human	No

Formulation 1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide.

Application

	F	FC	FS	IA	IF	IP	P	W
Yes	●	●				●	●	●
No			●					
N.D.				●	●			

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

Use For flow cytometry and Western blotting, 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.

Storage and stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for 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.

References

1. Morgan, S et al; Biochemical characterization and molecular cloning of a novel endothelial-specific sialomucin. Blood 1999, *93*: 165
2. Kuhn, A et al; Expression of endomucin, a novel endothelial sialomucin, in normal and diseased skin. J Invest Dermatol. 2002, *119*: 1388

Also available	HM1013	Monoclonal antibody against Mouse CD31 (PECAM-1), clone MEC7.46
	HM1015	Monoclonal antibody against Mouse CD34, clone MEC14.7
	HM1094	Monoclonal antibody against Mouse VAP-1, clone 7-88
	HM1099	Monoclonal antibody against Mouse Ephrin Type-B receptor 4, clone VEB4-7E4
	HM1107	Monoclonal antibody against Mouse VCAM-1, clone 6C7.1