CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Endothelial cells, Rat, clone RECA-1		
Catalog number	HM3012		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host Species	Mouse IgG1	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	1	2,4,5	3,6	3				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

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.

- FC: Standard procedure
- IHC-P: In many cases methyl-Carnoys fixative was used to fix tissue
- IHC-F: Standard procedure
- Positive control: Glomerular endothelial cells, RHEC cell line; Negative control: Vascular smooth muscle cells, fibroblasts

General Information

Description

The monoclonal antibody RECA-1 reacts with Rat Endothelial Cell Antigen (RECA), a cell surface antigen (MCA970R) on rat endothelial cells. Endothelial cells (EC) line the interior of all blood vessels and are the key players in the angiogenesis cascade. EC are the first cells and barrier that vehicles or medicines encounter after systemic delivery. Furthermore, they have a signaling function to the cells of the immune system to indicate the status of the surrounding tissue. RECA-1is at least reactive with the rat MHC-haplotype; Lewis (TR-11), BN (RT-1n) and OA (RT-1u). RECA-1 antibody has been successfully applied in staining of viable endothelial cells in vitro, and of vascular endothelium in vivo. No reactivity of the RECA-1 monoclonal antibody was seen with other cell types e.g. fibroblasts, leukocytes and non-endothelial stromal cells nor with other various tested species other than rat e.g. mouse, rabbit, sheep, goat and human. RECA-1 is a promising antibody for rat endothelial cell studies, and in particular for further defining nature and function of endothelial cell-specific antigens.

Cross reactivity

Human: No; Goat: No; Mouse: No; Rabbit: No; Sheep: No

References

1. Duijvesteijn, AM et al; Antibodies defining rat endothelial cells: RECA-1, a pan-endothelial cell-specific monoclonal antibody. Lab Invest 1992, *66*: 459
2. Iruela-Arispe, L et al; Repair of glomerulonephritis. Am J Pathol 1995, *147*: 1715
3. Derhaag, JG et al; Heart EC respond heterogeneous on cytokine stimulation in ICAM-1 and VCAM-1, but not in MHC expression. Endothelium 1997, *5*: 307
4. Johnson, RJ et al; Renal injury and salt-sensitive hypertension after exposure to catecholamines. Hypertension, 1999, *34*: 151
5. Pradhan, A et al; Heme-oxygenase upregulation ameliorates angiotensin II-induced tubulointerstitial injury and salt-sensitive hypertension. Am J Nephrol 2006, *26*: 552
6. Louboutin, JP et al; Blood-brain barrier abnormalities caused by exposure to HIV-1 gp120-protection by gene delivery of antioxidant enzymes. Neurobiol Dis 2010, *38:* 313

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	Date
Robbert Zwinkels	16/03/2018

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