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Biotinylated Monoclonal Antibody to Human Endothelial Cells

Marker For Fully Differentiated Endothelial Cells

Monoclonal antibody 1F10 recognizes an antigen on human continuous blood endothelial cells which are fully differentiated. The antibody staining is restricted to endothelial cells and does not stain any other cell in tissues or in peripheral blood. On sinusoidal endothelial cells of the liver or lymphatic organs the antigen is inconsistently expressed or absent.

Product Number:	T-1124 (Lot 02PB1205)
Clone:	1F10
Host species, isotype:	Rat IgG2a
Quantity:	200µg
Format:	Affinity purified, biotinylated lyophilized
	Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.4mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 10mg/ml bovine serum albumin (BSA) as a stabilizer and 0.01% thimerosal as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C
	Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.
Applications:	Tested for immunohistochemistry (IHC).
	Approximate working dilution for IHC: Frozen sections: 2µg/ml (1:200) Paraffin sections: does not react on routinely processed paraffin sections.
	Optimal dilutions should be determined by the end user.
	Suggested positive control: Human placenta.
	Please see **www.bma.ch** for protocols and general information.
Immunogen:	Cultured HUVECs.
Antigen, epitope:	The antigen and epitope have not been further characterized.

Antigen distribution: **Isolated cells:** The antigen is found in variable numbers on freshly isolated umbilical vein endothelial cells (HUVECs). Antigen expression on cultured HUVECs is dependent on the culture conditions. Best results were obtained (40-70% pos.) by daily renewal of FCS containing medium supplemented with endothelial cell conditioned supernatant whereas commercially available endothelial cell media apparently have no influence on the antigen expression.

Distribution of 1F10 antigen in normal and tumor tissues

Healthy Tissues		Biopsies (n)	1F10 Staining	**Diseased Tissues**		Biopsies (n)	1F10 Staining
Spleen	Continuous EC	5	+++	Stomach CA	Stromal EC	10	+++
	Sinusoidal EC		0		Tumor cells		0
Liver	Continuous EC	3	+++	Mammary CA	Stromal EC	3	+++
	Sinusoidal EC		0/(+)		Tumor cells		0
Kidney	Continuous EC	2	+++	Acroangio-dermatitis	New vessel EC	4	+++
	Glomerular EC		+++	Angioma senile	New vessel EC	3	+++
Skin	Continuous EC	4	+++	Granuloma pyogenicum	New vessel EC	4	+++
	Lymphatic EC		0/(+)	AIDS-Kaposi's sarcoma	Vascular slit cells	3	0/(+)
Lung		1	+++		Spindle cells		0/(+)
Myocardium		2	+++	Classical Kaposi's sarcoma	Vascular slit cells	1	(+)
Thymus	Cortex EC	2	+++		Spindle cells		0/(+)
	Medullary EC		+++	Hemangio-sarcoma	Stromal EC	1	+++
Placenta		3	+++		Tumor cells		0

Specificity: **Human:** continuous endothelial cells.

Other: negative in mouse, other species not tested.

Selected references

Goerdt, S. et al.: Characterization and differential expression of an endothelial-specific antigen in continuous and sinusoidal endothelia, in skin vascular lesions and in vitro. Exp Cell Biol 57: 185-192 (1989).

For in vitro research only. Caution: this product contains thimerosal, a poisonous and hazardous substance.