CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Endoglin, Human, clone E9		
Catalog number	HM2140-100UG		
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 #								
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.

- IA: HM2140 can be used as coating and detection antibody.
- FS: Antibody E9 cannot be used for inhibition of biological activity.

General Information

Description

The monoclonal antibody E9 reacts with Endoglin, a 190 kDa homodimeric transmembrane glycoprotein composed of disulfide-linked subunits. The external domain binds TGF-beta1 and -beta3 isoforms with high affinity. Two different isoforms (L and S) of CD105 with capacity to bind TGF-beta have been characterized, which differ in the amino acid composition of their cytoplasmic tails. Mutations in the gene encoding endoglin have been linked to the human disease hereditary hemorrhagic telangiectasia type 1 (HHT1), a vascular disorder characterized by localized vascular dysplasia and a tendency towards arteriovenous malformations. Mice expressing a single CD105 allele develop external signs of disease similar to human HHT1, supporting the haplo insufficiency model for HHT1. Mice lacking endoglin die from defective angiogenesis characterized by failure of vascular smooth muscle investment of embryonic blood vessels, suggesting a defect in vascular smooth muscle cell development. Micro vessel density (MVD) has been reported to be an independent prognostic indicator of outcome in a variety of human malignancies, with increased MVD correlating with shorter overall and relapse-free survival rates. The MVD counts using anti-CD105 antibody significantly correlated with overall and disease-free survival. Anti-CD105 monoclonal antibody E9 and anti-CD34 monoclonal antibody have been successfully used to quantify MVD in human breast carcinoma. The monoclonal antibody E9, directed against CD105, has also been used as a prognostic marker for primary central nervous system lymphomas.

Aliases

CD105

References

1. Wang, J et al; Breast carcinoma: comparative study if tumor vasculate using two endothelial cell markers. J Natl Cancer Inst 1994, *86*: 386
2. Pichuantes, S et al; Mapping epitopes to distinct regions of the extracellular domain of endoglin using bacterially expressed recombinant fragments. Tissue Antigens 1997, *50*: 265
3. Kumar, S et al; Breast carcinoma: vascular density determined using CD105 antibody correlates with tumor prognosis. Cancer Research 1999, *59*: 856
4. Li, C et al; Plasma levels of soluble CD105 correlates with metastasis in patients with breast cancer. Int J Cancer 2000, *89*: 122
5. Li, C et al; Both high intratumoral microvessel density determined using CD105 antibody and elevated plasma levels of CD105 in colorectal cancer patients correlate with poor prognosis. B J Cancer 2003, *88*: 1424
6. Costello, B et al; Perfusion of 99Tcm-labeled CD105 Mab into kidneys from patients with renal carcinoma suggests that CD105 is a promising vascular target. Int J Cancer 2004, *109*: 436

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
Brenda Teunissen	02/12/2019

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