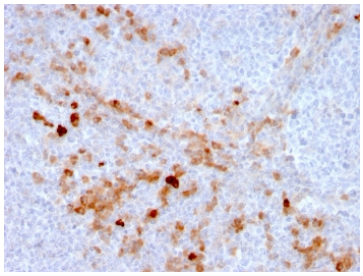
CD105 Antibody / Microarray Specificity Validated Antibody [clone ENG/3269] (V7730)

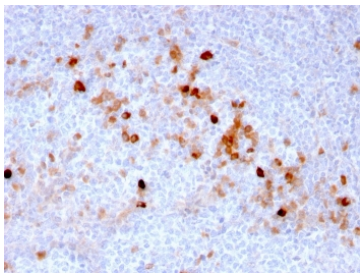
Catalog No.	Formulation	Size
V7730-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7730-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7730SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

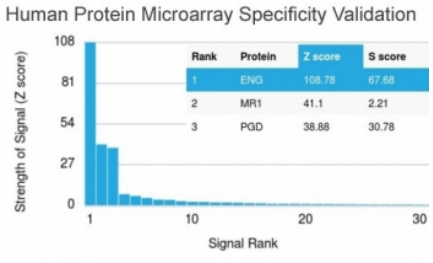
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	ENG/3269
Purity	Protein G affinity chromatography
UniProt	P17813
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD105 Antibody / Microarray Specificity Validated Antibody is available for research use only.



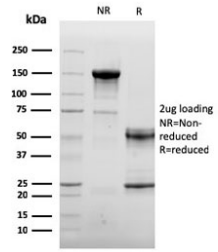
CD105 Antibody Human Tonsil IHC. Immunohistochemistry analysis of FFPE human tonsil tissue using CD105 Antibody (clone ENG/3269) demonstrates HRP-DAB brown membranous staining in endothelial cells of small vessels within the lymphoid tissue, consistent with Endoglin / CD105 expression as an endothelial marker, while surrounding lymphocytes remain largely negative; nuclei are counterstained blue. HIER: boil tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 10-20 min and allow to cool before testing.



CD105 Antibody Tonsil Vascular IHC. Immunohistochemistry analysis of FFPE human tonsil tissue using CD105 Antibody (clone ENG/3269) demonstrates HRP-DAB brown membranous staining in endothelial cells of small vessels within lymphoid regions, with scattered vascular profiles highlighted throughout the tissue, consistent with Endoglin / CD105 expression as an endothelial marker, while surrounding lymphocytes remain largely negative; nuclei are counterstained blue. HIER: boil tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 10-20 min and allow to cool before testing.



CD105 Antibody Microarray Specificity Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using CD105 Antibody (clone ENG/3269) demonstrates highly specific detection of Endoglin / CD105, an endothelial marker involved in angiogenesis and vascular biology. The antibody shows a dominant signal for ENG with clear separation from other proteins on the array, supporting strong target specificity of clone ENG/3269. Z- and S-score: The Z-score represents the strength of signal generated when the antibody binds to a protein on the array, expressed as standard deviations above the mean signal, while the S-score reflects the difference between sequential Z-scores and indicates relative specificity compared to potential off-target interactions.



SDS-PAGE analysis of purified, BSA-free CD105 antibody (clone ENG/3269) as confirmation of integrity and purity.

Description

Endoglin (ENG), also known as CD105, is a transmembrane glycoprotein expressed on endothelial cells, where it functions as a key regulator of angiogenesis and vascular signaling. CD105 Antibody / Microarray Specificity Validated Antibody (clone ENG/3269) targets this protein and provides highly specific detection supported by protein microarray validation. CD105 antibody, also referred to as Endoglin antibody and ENG antibody in the literature, detects an endothelial marker widely used in studies of vascular development and tumor-associated angiogenesis.

Functionally, Endoglin participates in TGF-beta signaling pathways that regulate endothelial cell proliferation, migration, and differentiation. It acts as a co-receptor for TGF-beta ligands and contributes to vascular remodeling and repair. CD105 expression is particularly elevated in actively proliferating endothelial cells, especially within tumor vasculature, where it serves as a marker of angiogenic activity and neovascularization.

Expression of CD105 is most prominent in endothelial cells lining blood vessels, with increased levels observed in newly formed vessels and areas of active angiogenesis. In tumor tissues, CD105-positive endothelial cells are frequently found within the tumor microenvironment, reflecting enhanced vascularization. The ENG gene is located on chromosome 9q34.11 and plays a critical role in maintaining vascular integrity, with mutations linked to hereditary hemorrhagic telangiectasia.

Structurally, Endoglin is a homodimeric membrane protein composed of an extracellular ligand-binding domain, a transmembrane region, and a cytoplasmic tail that mediates intracellular signaling. It interacts with components of the TGF-beta receptor complex and influences downstream signaling pathways that regulate endothelial cell function. Endoglin may also co-localize with other vascular markers involved in angiogenesis and endothelial signaling.

Protein microarray validation demonstrates strong and specific binding of this antibody to CD105 with minimal off-target

interaction, supporting reliable detection of Endoglin in complex protein samples. This high level of specificity is particularly valuable in applications requiring precise target recognition, such as comparative expression analysis and validation studies.

Altered CD105 expression is associated with cancer progression, vascular disease, and inflammatory responses, where dysregulated angiogenesis plays a central role. In oncology, elevated Endoglin expression correlates with tumor growth and metastasis, reflecting increased vascularization. In inflammatory and repair processes, CD105-positive endothelial cells contribute to tissue regeneration and immune cell trafficking.

This antibody provides highly specific detection of CD105 / Endoglin supported by protein microarray validation, making it suitable for research applications requiring confident identification of this endothelial marker. A CD105 antibody is suitable for detecting this angiogenesis-associated protein in studies of vascular biology, tumor angiogenesis, and endothelial cell function. For broader detection of CD105 as an endothelial marker across applications, see our CD105 antibody.

Application Notes

Optimal dilution of the CD105 Antibody / Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

A partial recombinant protein corresponding to amino acids 74-251 of human CD105/Endoglin was used as the immunogen for the CD105 antibody.

Storage

Store the CD105 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Endoglin antibody, ENG antibody, CD105 microarray antibody, Endoglin validated antibody, ENG specificity antibody

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