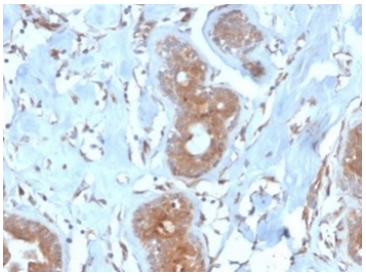
LRG1 Antibody / Angiogenesis Regulation Marker [clone LRG1/4882] (V9588)

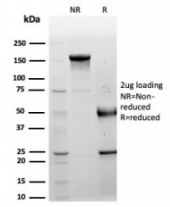
Catalog No.	Formulation	Size
V9588-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9588-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9588SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

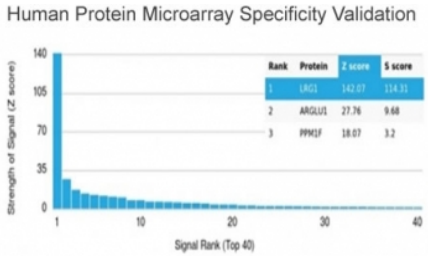
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	LRG1/4882
Purity	Protein A/G affinity
UniProt	P02750
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This LRG1 Antibody / Angiogenesis Regulation Marker is available for research use only.



LRG1 Antibody Breast Tissue IHC. Immunohistochemistry analysis of FFPE human breast tissue using LRG1 antibody. The mouse monoclonal antibody clone LRG1/4882 shows cytoplasmic staining in glandular epithelial structures, consistent with Leucine-rich alpha-2-glycoprotein 1 / LRG1 expression as an angiogenesis regulation marker. Signal is observed in epithelial and perivascular regions, reflecting the role of this secreted protein in vascular remodeling and tissue microenvironment signaling, while surrounding stromal areas display lower staining. HIER: boil tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free LRG1 antibody (clone LRG1/4882) as confirmation of integrity and purity.



LRG1 Antibody Microarray Specificity Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using LRG1 antibody (clone LRG1/4882). These results demonstrate the foremost specificity of the LRG1/4882 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

Leucine-rich alpha-2-glycoprotein 1 (LRG1) is a secreted glycoprotein that plays a key role in angiogenesis, vascular remodeling, and inflammatory signaling. LRG1 antibody is widely used to study this proteinÃ¢Â€Â™s involvement in modulating endothelial cell behavior and promoting new blood vessel formation under both physiological and pathological conditions. Originally identified as a serum protein, LRG1 has since been recognized as an important regulator of vascular biology and tissue remodeling processes.

LRG1 antibody, also known as Leucine-rich alpha-2-glycoprotein 1 antibody or LRG-1 antibody in the literature, enables detection of this protein in pathways associated with angiogenesis and immune-related signaling. LRG1 functions by interacting with components of the transforming growth factor beta (TGF-beta) signaling pathway, influencing endothelial cell proliferation, migration, and differentiation. Through this mechanism, it contributes to the regulation of blood vessel formation and stability, particularly in response to injury or inflammation.

Functionally, LRG1 promotes angiogenic switching by modulating TGF-beta signaling toward a pro-angiogenic phenotype. This activity is critical in processes such as wound healing and tissue regeneration, but it is also implicated in disease states including cancer, diabetic retinopathy, and chronic inflammatory conditions. Elevated LRG1 expression has been associated with abnormal vascular growth and increased permeability, highlighting its importance as a marker of pathological angiogenesis. LRG1 antibody provides a valuable tool for investigating these mechanisms in both normal and disease contexts.

Expression of LRG1 is observed in a range of cell types, including endothelial cells, hepatocytes, and immune cells, with secretion into the extracellular environment and circulation. As a secreted protein, LRG1 can act in a paracrine manner to influence neighboring cells within the tissue microenvironment. This extracellular distribution allows it to participate in signaling networks that coordinate vascular remodeling and inflammatory responses. LRG1 antibody is therefore useful for studying both tissue localization and secreted protein dynamics.

Subcellularly, LRG1 is synthesized in the endoplasmic reticulum and secreted through the classical secretory pathway, resulting in extracellular localization. Its leucine-rich repeat structure facilitates protein-protein interactions that are essential for its signaling functions. This structural feature contributes to its ability to modulate receptor signaling pathways and influence cellular responses to environmental cues.

This LRG1 antibody is supported by protein microarray specificity validation, demonstrating selective binding to LRG1

among a large panel of human proteins. Western blot and immunohistochemistry data further support detection of LRG1 in relevant biological samples. Together, these validation approaches provide confidence in specificity and performance, making this antibody a useful reagent for studies of angiogenesis, vascular biology, and inflammatory signaling.

This antibody is part of a broader antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the LRG1 Antibody / Angiogenesis Regulation Marker should be determined by the researcher.

Immunogen

A portion of amino acids 30-180 was used as the immunogen for the LRG1 antibody.

Storage

Aliquot the LRG1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

LRG1 antibody, Leucine-rich alpha-2-glycoprotein 1 antibody, LRG-1 antibody, Serum leucine-rich glycoprotein antibody, LRG1 protein antibody