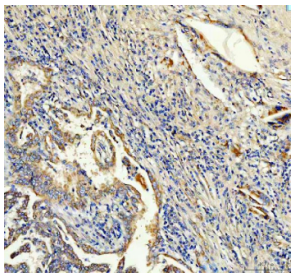
ANGPTL2 Antibody / Angiopoietin-related protein 2 (R32799)

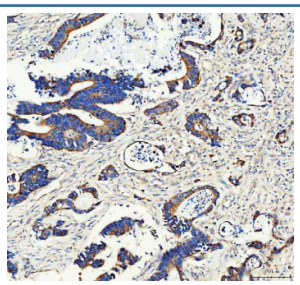
Catalog No.	Formulation	Size
R32799	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

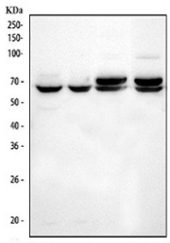
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9UKU9
Localization	Cytoplasmic, secreted
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This ANGPTL2 antibody is available for research use only.



Immunohistochemical staining of FFPE human lung cancer tissue with ANGPTL2 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunohistochemical staining of FFPE human colon cancer tissue with ANGPTL2 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot analysis of ANGPTL2 expression in HUVEC cells, human SH-SY5Y cells, rat heart tissue, and mouse heart tissue. Predicted molecular weight of ANGPTL2 is ~57 kDa. Bands are observed at ~60â€“65 kDa, with a doublet present in heart tissue, consistent with glycosylation-dependent mobility shifts and tissue-specific post-translational processing.

Description

ANGPTL2 antibody targets Angiopoietin-related protein 2, encoded by the ANGPTL2 gene. Angiopoietin-related protein 2 is a secreted glycoprotein that belongs to the angiopoietin-like protein family, which shares structural similarity with angiopoietins but functions independently of the Tie receptor signaling system. ANGPTL2 contains an N-terminal coiled-coil domain and a C-terminal fibrinogen-like domain, a domain architecture that supports protein-protein interactions and extracellular signaling. The protein is primarily localized to the extracellular space and circulates in plasma, where it acts as a signaling mediator between tissues and the vascular system.

Functionally, Angiopoietin-related protein 2 plays a key role in regulating inflammation, angiogenesis, and tissue remodeling. It has been shown to act as a pro-inflammatory factor that promotes endothelial activation, leukocyte recruitment, and vascular permeability. Through these activities, ANGPTL2 contributes to crosstalk between endothelial cells, immune cells, and surrounding stromal tissues. An ANGPTL2 antibody supports research focused on extracellular signaling pathways that link inflammation with vascular and metabolic regulation.

ANGPTL2 is expressed in a wide range of tissues, including adipose tissue, heart, skeletal muscle, lung, kidney, and vascular endothelium. Expression levels are often elevated under conditions of tissue stress, hypoxia, or chronic inflammation. In adipose tissue, ANGPTL2 expression increases with obesity and metabolic stress, highlighting its role as an adipokine that influences systemic metabolic homeostasis. Circulating ANGPTL2 levels have therefore been investigated as a biomarker of chronic inflammation and cardiometabolic risk.

From a disease-relevance perspective, Angiopoietin-related protein 2 has been implicated in multiple pathological conditions. Elevated ANGPTL2 expression has been associated with cardiovascular disease, atherosclerosis, insulin resistance, type 2 diabetes, and chronic inflammatory disorders. In cancer biology, ANGPTL2 has been linked to tumor progression, angiogenesis, and metastasis, partly through its ability to remodel the tumor microenvironment and promote inflammatory signaling. These associations have made ANGPTL2 a molecule of interest in studies examining inflammation-driven disease mechanisms and vascular dysfunction.

At the molecular level, ANGPTL2 encodes a protein with an apparent molecular weight of approximately 55 to 60 kDa, though observed band sizes may vary due to glycosylation and proteolytic processing. Post-translational modifications can influence protein stability, secretion, and biological activity. As a secreted factor, ANGPTL2 interacts with cell surface receptors and extracellular matrix components to modulate downstream signaling pathways. An ANGPTL2 antibody supports research applications focused on vascular biology, inflammation, metabolic disease, and extracellular signaling, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the ANGPTL2 antibody should be determined by the researcher.

Immunogen

Amino acids 275-312 (WRDCLQALEDGHDTSSIYLVKPENTNRLMQVWCDQRHD) from the human protein were used as the immunogen for the ANGPTL2 antibody.

Storage

After reconstitution, the ANGPTL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.