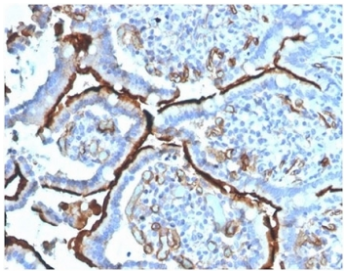
Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody [clone ACE/3764] (V9620)

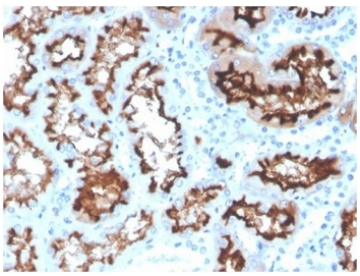
Catalog No.	Formulation	Size
V9620-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9620-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9620SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

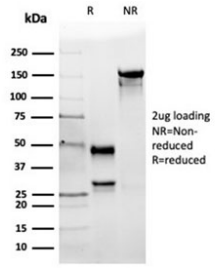
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ACE/3764
Purity	Protein A/G affinity
UniProt	P12821
Localization	Cell Surface
Applications	ELISA (order BSA-free Format For Coating) : Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody is available for research use only.



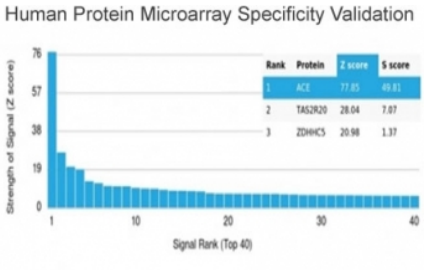
Angiotensin Converting Enzyme Antibody Colon Carcinoma IHC. Immunohistochemistry analysis of FFPE human colon carcinoma tissue using Angiotensin Converting Enzyme Antibody (clone ACE/3764) shows strong membranous staining highlighting vascular endothelial cells within the tumor microenvironment, consistent with ACE / CD143 localization as a cell surface enzyme. The staining delineates vessel structures interspersed throughout the tumor, while tumor epithelial cells display comparatively lower signal. Hematoxylin counterstain provides nuclear contrast and tissue architecture. Antibody incubation was performed at 2 ug/ml in PBS for 30 min at RT. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



Angiotensin Converting Enzyme Antibody Kidney Tissue IHC. Immunohistochemistry analysis of FFPE human kidney tissue using Angiotensin Converting Enzyme Antibody (clone ACE/3764) shows strong membranous staining along renal tubular epithelial cells and vascular endothelium, consistent with ACE / CD143 localization as a cell surface enzyme. The staining outlines tubular structures and associated vascular elements, while interstitial regions display comparatively lower signal. Hematoxylin counterstain provides nuclear contrast and tissue architecture. Antibody incubation was performed at 2 ug/ml in PBS for 30 min at RT. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free Angiotensin Converting Enzyme antibody (clone ACE/3764) as confirmation of integrity and purity.



Angiotensin Converting Enzyme Antibody HuProt Microarray Specificity. Protein microarray analysis using Angiotensin Converting Enzyme Antibody (clone ACE/3764) demonstrates highly specific binding to ACE / CD143, with the target protein ranked as the top hit and showing a strong Z score relative to all other proteins on the array. Signal intensity drops sharply for non-target proteins, supporting selective recognition with minimal off-target interaction. Z score represents the strength of signal in standard deviations above the mean of all array signals, while S score reflects the separation between the top-ranked target and the next highest signal, indicating relative specificity.

Description

Angiotensin converting enzyme (ACE), also known as CD143 or ACE1, is a membrane-associated metalloprotease that plays a central role in the regulation of vascular function and blood pressure through the renin-angiotensin system. The Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody is designed to detect this key enzyme in tissues where endothelial biology and peptide processing are critical. ACE is encoded on chromosome 17q23 and is primarily expressed on the surface of vascular endothelial cells, where it functions as a dipeptidyl carboxypeptidase. This antibody is part of a collection of Human Protein Microarray validated antibodies that have been screened for specificity across thousands of proteins.

The Angiotensin Converting Enzyme antibody, also referred to as ACE antibody, ACE1 antibody, and CD143 antibody in the literature, recognizes a protein that is localized predominantly to the plasma membrane of endothelial and epithelial cells. ACE catalyzes the conversion of angiotensin I to angiotensin II, a potent vasoconstrictor, and also inactivates bradykinin, thereby regulating vascular tone, fluid balance, and inflammatory signaling. This dual enzymatic role makes ACE a central component of cardiovascular physiology and a key target in hypertension research.

This Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody is uniquely positioned for studies of vascular biology and endothelial cell function. In immunohistochemistry, ACE is typically observed as membranous staining along vascular endothelium and in select epithelial compartments, reflecting its cell surface localization. This pattern enables clear visualization of blood vessels and tissue architecture, making ACE a useful marker for endothelial identification and vascular integrity.

In addition to its physiological role, ACE is implicated in a range of pathological conditions, including hypertension, cardiovascular disease, and inflammatory disorders. Altered ACE expression has also been observed in certain cancers, where vascular remodeling and tumor-associated angiogenesis are involved. Detection of ACE expression can therefore

provide insight into vascular structure, endothelial activation, and disease-associated changes in tissue microenvironments.

The mouse monoclonal clone ACE/3764 provides consistent and specific detection of ACE, supported by protein microarray specificity validation data demonstrating selective binding to the intended target. This Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody is suitable for detecting ACE expression in research applications focused on vascular biology, endothelial cell function, and peptide processing pathways. Its performance supports detailed evaluation of ACE localization and expression across normal and disease-associated tissues.

This antibody supports investigation of endothelial cell biology, vascular structure, and renin-angiotensin system activity involving ACE.

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

Application Notes

Optimal dilution of the Angiotensin Converting Enzyme Antibody / ACE Endothelial Cell Surface Enzyme Antibody should be determined by the researcher.

Immunogen

Full-length recombinant human protein was used as the immunogen for the Angiotensin Converting Enzyme antibody.

Storage

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

Alternate Names

ACE antibody, Angiotensin converting enzyme antibody, ACE1 antibody, CD143 antibody, ACE endothelial marker antibody