ACE2 Antibody for IHC / Angiotensin-Converting Enzyme 2 Immunohistochemistry Antibody [clone MSVA-919R] (V6108)

Catalog No.	Formulation	Size
V6108-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6108-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-919R
UniProt	Q9BYF1
Localization	Apical cell membrane, Cell membrane, Cell projection, Cilium, Cytoplasm, Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This ACE2/Angiotensin-converting enzyme 2 antibody is available for research use only.

ACE2 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Angiotensin-converting enzyme 2 ACE2 in formalin-fixed paraffin-embedded human tissue microarrays using recombinant rabbit monoclonal ACE2 antibody clone MSVA-919R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen highlights epithelial cell localization, with strong signal observed in organs such as intestine and kidney, while most stromal and lymphoid tissues remain largely negative. This distribution reflects the known epithelial expression pattern of ACE2 across multiple normal and cancer tissues. The observed TMA staining profiles are consistent with ACE2 expression data reported in the Human Protein Atlas.

Description

Angiotensin-converting enzyme 2 (ACE2) is a membrane-associated metalloprotease encoded by the ACE2 gene that functions as a key regulator of the renin-angiotensin system. ACE2 Antibody for IHC is used to visualize the tissue distribution and cellular localization of Angiotensin-converting enzyme 2 within formalin-fixed paraffin-embedded specimens using immunohistochemistry. ACE2, also referred to as ACE2 receptor or Angiotensin-converting enzyme homolog, is widely expressed in epithelial tissues where it participates in the enzymatic conversion of angiotensin II to

angiotensin-(1-7), a signaling pathway associated with vasodilatory and anti-inflammatory effects. Because of its physiological importance in cardiovascular, pulmonary, and epithelial biology, ACE2 expression patterns have been extensively studied in histological tissue sections.

Immunohistochemistry studies commonly show ACE2 staining in epithelial cells of several organs including intestine, kidney, lung, and glandular tissues. Within these tissues, ACE2 protein is typically detected along cell membranes and within the cytoplasm of epithelial cells, consistent with its role as a membrane-associated enzyme involved in peptide processing and receptor-mediated signaling. Visualization of ACE2 expression in histological sections allows researchers to examine epithelial distribution patterns while preserving tissue architecture, enabling comparison of expression between different organs and between normal and disease-associated tissues.

Large-scale immunohistochemistry studies frequently utilize human tissue microarray (TMA) platforms to evaluate ACE2 expression across diverse tissues in a standardized format. In human tissue microarray panels containing multiple normal and cancer tissues, ACE2 staining is typically strongest in epithelial compartments while stromal and connective tissues often display minimal signal. This epithelial-biased staining pattern has been consistently reported in public expression datasets and immunohistochemistry studies, supporting the use of tissue microarrays as an efficient method for assessing ACE2 distribution across many tissue types within a single experiment.

A recombinant rabbit monoclonal antibody, clone MSVA-919R, recognizes ACE2 protein and is suitable for immunohistochemical analysis of ACE2 expression in human tissues. When applied to FFPE tissue sections and human tissue microarray (TMA) panels, this ACE2 Antibody for IHC highlights epithelial cell populations in multiple organs, enabling visualization of ACE2-positive cells within their histological context. These staining patterns align with published ACE2 expression profiles and with large-scale protein expression datasets such as the Human Protein Atlas, supporting the use of immunohistochemistry for studying ACE2 tissue distribution and epithelial expression patterns in normal and cancer tissues.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the ACE2 Antibody for IHC / Angiotensin-Converting Enzyme 2 Immunohistochemistry Antibody should be determined by the researcher.

2. This ACE2/Angiotensin-converting enzyme 2 antibody is recombinantly produced by expression in CHO cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 705-805) of human ACE2 (exact sequence is proprietary) was used as the immunogen for the ACE2 Antibody for IHC / Angiotensin-Converting Enzyme 2 Antibody for IHC.

Storage

ACE2/Angiotensin-converting enzyme 2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

ACE2 receptor antibody, Angiotensin-converting enzyme homolog antibody, ACEH antibody, ACE2 protein antibody