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CO4A2 Rabbit pAb

Catalog # AP100196

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P08572
Other Accession	P08572
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	167553
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Collagen alpha-2(IV) chain
Epitope Specificity	1651-1712/1712
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the type IV collagen family. Contains 1 collagen IV NC1 (C-terminal non-collagenous) domain.
SUBUNIT	There are six type IV collagen isoforms, alpha 1(IV)-alpha 6(IV), each of which can form a triple helix structure with 2 other chains to generate type IV collagen network.
Post-translational modifications	Prolines at the third position of the tripeptide repeating unit (G-X-Y) are hydroxylated in some or all of the chains. Type IV collagens contain numerous cysteine residues which are involved in inter- and intramolecular disulfide bonding. 12 of these, located in the NC1 domain, are conserved in all known type IV collagens. [PTM] The trimeric structure of the NC1 domains is stabilized by covalent bonds between Lys and Met residues (By similarity). Proteolytic processing produces the C-terminal NC1 peptide, canstatin.
DISEASE	Defects in COL4A2 are the cause of porencephaly type 2 (POREN2) [MIM:614483]. POREN2 is a neurologic disorder characterized by a fluid-filled cysts or cavities within the cerebral hemispheres. Affected individuals typically have hemiplegia, seizures, and intellectual disability. Porencephaly type 2, or schizencephalic porencephaly, is usually symmetric and represents a primary defect in the development of the cerebral ventricles. [DISEASE] Defects in COL4A2 are a cause of susceptibility to intracerebral hemorrhage (ICH) [MIM:614519]. ICH is a pathological condition characterized by bleeding into one or both cerebral hemispheres including the basal ganglia and the cerebral cortex. It is often associated with hypertension and craniocerebral trauma. Intracerebral bleeding is a common cause of stroke.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CO4A2 is one of the six subunits of type IV collagen, the major structural component of basement membranes. CO4A2 fors a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen and is an inhibitor of angiogenesis and tumor growth.

Additional Information

Gene ID	1284
Other Names	BSVD2; ICH; POREN2; Col4a-2; CO4A2_HUMAN; COL4A2; CO4A2_MOUSE; collagen type IV alpha 2 chain; collagen type IV alpha 2; canstatin
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	COL4A2 (HGNC:2203)
Function	Type IV collagen is the major structural component of glomerular basement membranes (GBM), forming a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen.
Cellular Location	Secreted, extracellular space, extracellular matrix, basement membrane

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.