

Anti-Collagen 4 alpha 4 Antibody

Catalog # AP54117

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P53420
Reactivity	Human, Mouse, Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	164038

Additional Information

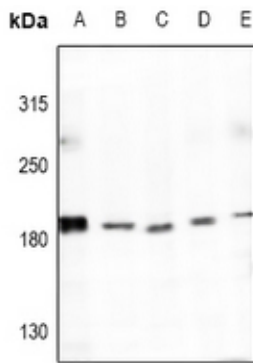
Gene ID	1286
Other Names	Collagen alpha-4(IV) chain
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Collagen 4 alpha 4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

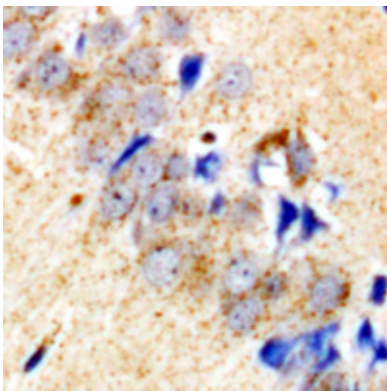
Name	COL4A4
Function	Type IV collagen is the major structural component of glomerular basement membranes (GBM), forming a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen.
Cellular Location	Secreted, extracellular space, extracellular matrix, basement membrane {ECO:0000255 PROSITE-ProRule:PRU00736} Note=Colocalizes with COL4A4 and COL4A5 in GBM, tubular basement membrane (TBM) and synaptic basal lamina (BL).
Tissue Location	Expressed in Bruch's membrane, outer plexiform layer, inner nuclear layer, inner plexiform layer, ganglion cell layer, inner limiting membrane and around the blood vessels of the retina (at protein level) (PubMed:29777959). Alpha 3 and alpha 4 type IV collagens are colocalized and present in kidney, eye, basement membranes of lens capsule, cochlea, lung, skeletal muscle, aorta, synaptic fibers, fetal kidney and fetal lung. PubMed:8083201 reports similar levels of expression of alpha 3 and alpha 4 type IV collagens in kidney,

but PubMed:7523402 reports that in kidney levels of alpha 3 type IV collagen are significantly lower than those of alpha 4 type IV collagen. Highest levels of expression of alpha 4 type IV collagen are detected in kidney, calvaria, neuroretina and cardiac muscle. Lower levels of expression are observed in brain, lung and thymus, and no expression is detected in choroid plexus, liver, adrenal, pancreas, ileum or skin.

Images



Western blot analysis of Collagen 4 alpha 4 expression in A549 (A), PC3 (B), SKOV3 (C), CT26 (D), PC12 (E) whole cell lysates. (Predicted band size: 164 kD; Observed band size: 190 kD)



Immunohistochemical analysis of Collagen 4 alpha 4 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of Collagen 4 alpha 4 staining in COS7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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