

Active Recombinant Human COL4A1 protein, His-tagged

Cat. No. COL4A1-1764H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human COL4A1 protein(P02462)(1444~1669 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1444-1669 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Collagen Type IV Alpha 1 (COL4a1), a secreted glycoprotein, is a member of the type IV collagen family. COL4a1 is the major structural component of glomerular basement membranes (GBM), forming a 'chicken-wire' meshwork together with laminins, proteoglycans and entactin/nidogen. It can inhibit angiogenesis and tumor formation, and specifically inhibit endothelial cell proliferation, migration and tubule formation. COL4A1 mutations can remain asymptomatic or cause devastating disease. Neonates and children may present with porencephaly, intracerebral hemorrhage, or hemiparesis, whereas adults tend to develop intracranial aneurysms or retinal arteriolar tortuosities. Glycoprotein VI (GP6) has been identified as an interactor of COL4a1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human COL4a1 and recombinant human GP6. Briefly, COL4a1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of

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100 µl were then transferred to GP6-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-COL4a1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 µ stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human COL4a1 and recombinant human GP6 was shown, the EC50 for this effect is 0.05 ug/mL.

Molecular Mass	31.7kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 80% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	COL4A1 collagen, type IV, alpha 1 [Homo sapiens]
Official Symbol	COL4A1
Synonyms	COL4A1; collagen, type IV, alpha 1; collagen alpha-1(IV) chain; COL4A1 NC1 domain; collagen IV, alpha-1 polypeptide; collagen of basement membrane, alpha-1 chain; HANAC; POREN1; arresten;

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Gene ID 1282

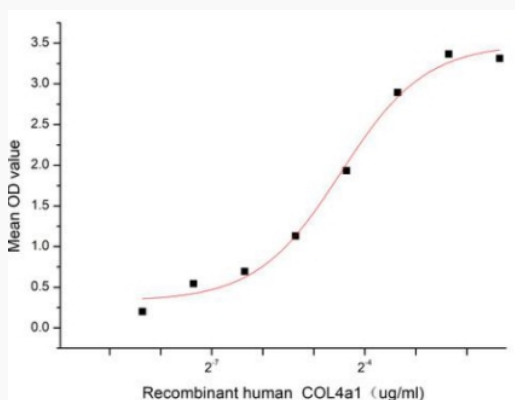
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Protein Refseq NP_001836

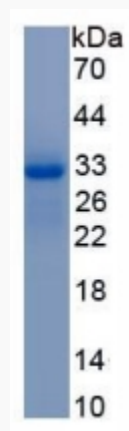
MIM 120130

UniProt ID P02462

Activity



SDS-PAGE



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