

COL4A1 Protein, Human (GST)

Cat. No.:	HY-P71444
Synonyms:	Arresten; BSVD; COL4A1; COL4A1 NC1 domain; COL4A2; COL4A3; COL4A4; COL4A5; collagen alpha-1(IV) chain
Species:	Human
Source:	E. coli
Accession:	P02462 (30G-167P)
Gene ID:	1282
Molecular Weight:	Approximately 42 kDa

PROPERTIES

AA Sequence	<p>G C A G S G C G K C D C H G V K G Q K G E R G L P G L Q G V I G F P G M Q G P E</p> <p>G P Q G P P G Q K G D T G E P G L P G T K G T R G P P G A S G Y P G N P G L P G</p> <p>I P G Q D G P P G P P G I P G C N G T K G E R G P L G P P G L P G F A G N P G P</p> <p>P G L P G M K G D P G E I L G H V P</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>COL4A1 protein, a pivotal component of Type IV collagen, constitutes the primary structural framework of glomerular basement membranes (GBM), forming a distinctive 'chicken-wire' meshwork in collaboration with laminins, proteoglycans, and entactin/nidogen. Additionally, Arresten, consisting of the C-terminal NC1 domain of COL4A1, exerts a potent inhibitory effect on angiogenesis and tumor formation. Notably, the anti-angiogenic activity resides in the C-terminal half of COL4A1, where it selectively hampers endothelial cell proliferation, migration, and tube formation. This dual role of COL4A1 highlights its significance not only in maintaining the structural integrity of GBMs but also in modulating crucial processes such as angiogenesis and tumor development through the activity of Arresten.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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