

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived human Collagen IV alpha 1 protein
Ser1441-Thr1669, with a C-ter 6xHis tag
Accession # P02462.3

N-terminal Sequence Analysis Ser 1441

Predicted Molecular Mass 26 kDa

SPECIFICATIONS

SDS-PAGE 22-33 kDa, under reducing conditions

Activity Measured by its binding ability in a functional ELISA.
Recombinant Human Collagen IV alpha 1 His-tag (Catalog # 11597-CL) binds Recombinant Human Integrin $\alpha 1 \beta 1$ (Catalog # 7064-AB) with an ED_{50} of 85.0-850 ng/mL.

Endotoxin Level <0.10 EU per 1 μ g of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 250 μ g/mL in PBS.

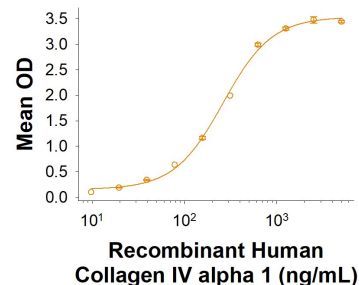
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

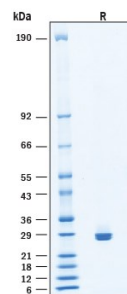
DATA

Binding Activity



Recombinant Human Collagen IV alpha 1 His-tag Protein Binding Activity. Recombinant Human Collagen IV alpha 1 His-tag Protein (Catalog # 11597-CL) binds Recombinant Human Integrin $\alpha 1 \beta 1$ (Catalog # 7064-AB) with an ED_{50} of 85.0-850 ng/mL.

SDS-PAGE



Recombinant Human Collagen IV alpha 1 His-tag Protein SDS-PAGE. 2 μ g/lane of Recombinant Human Collagen IV alpha 1 His-tag Protein (Catalog # 11597-CL) was resolved with SDS-PAGE under reducing (R) condition and visualized by Coomassie® Blue staining, showing bands at 22-33 kDa.

BACKGROUND

Type IV collagen is a member of the collagen superfamily. Unlike other collagens, type IV occurs only in basement membranes. In mammals, type IV collagen has up to 6 genetically distinct alpha chains, designated alpha-1(IV) to alpha-6(IV), each of which can form a triple helix structure with two other chains (1-3). Each chain contains three domains: a cysteine- and lysine-rich N-terminal domain, a collagenous triple repeat region, and a non-collagenous (NC1) C-terminal domain (4). The cysteine and lysine residues at the amino-terminal domain are essential for interchain crosslinking (5). Arresten, which comprise the C-terminal NC1 domain, has anti-angiogenic activity and inhibits tumor formation (6-7). Within this region, human Arresten shares 97% and 75% sequence identity with mouse and rat Arresten, respectively.

References:

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3. Guey, S. and D. Herve (2022) Cereb. Circ. Cogn. Behav. **3**:100140.
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