Recombinant Human Fibrillin-1/FBN1 Fc Chimera

Catalog Number: 10224-FI

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived human Fibrillin-1/FBN1 protein

Human Fibrillin-1 (Ala25-Thr660) Accession # P35555	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Ala25
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	95 kDa

SPECIFICATIONS

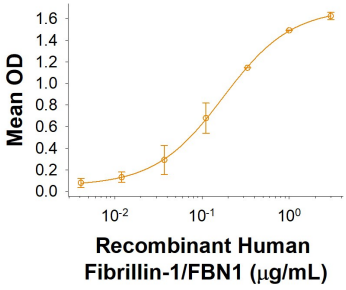
SDS-PAGE	97-108 kDa
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human MFAP4 (Catalog # 10230-MF) is immobilized at 0.5 µg/mL (100 µL/well), the concentration of Recombinant Human Fibrillin-1/FBN1 Fc Chimera (Catalog # 10224-FI) that produces 50% of the optimal binding response is 0.1-0.6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/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.

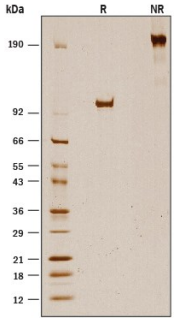
DATA

Binding Activity



When Recombinant Human MFAP4 (Catalog # 10230-MF) is coated at 0.5 µg/mL, 100 µL/well, Recombinant Human Fibrillin-1/FBN1 Fc Chimera (Catalog # 10224-FI) binds with an ED_{50} of 0.1-0.6 µg/mL.

SDS-PAGE



1 µg/lane of Recombinant Human Fibrillin-1/FBN1 Fc Chimera (Catalog # 10224-FI) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by silver staining, showing bands at 97-108 kDa and 190-220 kDa, respectively.

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BACKGROUND

Fibrillins are glycoproteins forming the backbone of microfibrils in elastic and non-elastic tissues. They interact with other components of the extracellular matrix (ECM) and play essential roles in tissue development, homeostasis and repair. Fibrillin-1 is a calcium-binding protein that assembles to form the structural component of the 10-12 nm microfibrils of the ECM. The human Fibrillin-1 has multiple domains, primarily consisting of epidermal growth factor (EGF)-like and other modules (1, 2). The calcium-binding modules in some of the EGF domains provide structural stability and the characteristic rod-like shape of the protein (3-8). Mature human Fibrillin-1 shares 97% amino acid (aa) sequence identity with mature mouse Fibrillin-1. Human Fibrillin-1 is synthesized as an approximately 350-kDa precursor molecule, which is then proteolytically processed by furin into its biologically active form (9-10). Fibrillin microfibers are further engaged in a number of cell matrix interactions such as with integrins, bone morphogenetic proteins (BMPs) and the large latent complex of transforming growth factor-beta (11). Fibrillin-1 mutations are associated with a range of heritable connective disorders, including Marfan syndrome and acromelic dysplasias (11-12).

References:

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