

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human RECK protein		
	Human RECK (Met1-Pro941) Accession # O95980	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Gly27		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	127 kDa		

SPECIFICATIONS

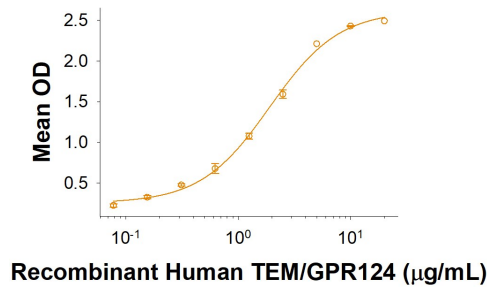
SDS-PAGE	125-137 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human RECK Fc Chimera (Catalog # 10309-RE) is immobilized at 2 µg/mL (100 µL/well), Recombinant Human TEM5/GPR124 His-tag (Catalog # 10206-TE) binds with an ED ₅₀ of 0.7-5.6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg 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 µm filtered solution in Tris and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in water.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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.

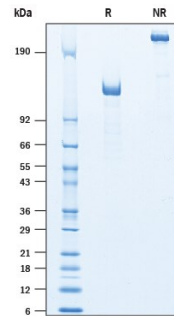
DATA

Binding Activity



When Recombinant Human RECK Fc Chimera (Catalog # 10309-RE) is immobilized at 2 µg/mL (100 µL/well), Recombinant Human TEM5/GPR124 His-tag (Catalog # 10206-TE) binds with an ED₅₀ of 0.7-5.6 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human RECK Fc Chimera (Catalog # 10309-RE) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing a band under reducing conditions at ~131 kDa.

BACKGROUND

Reversion-inducing cysteine-rich protein with Kazal motifs (RECK), also known as Suppressor of tumorigenicity 15 protein (ST15), is a 971 amino acid highly conserved protein that serves as an important mediator of tissue remodeling (1). The multi-domain protein includes hydrophobic regions at the N- and C-termini that correspond to a signal domain and GPI anchoring site, respectively (2). Internally, there are three serine protease inhibitor-like (SPI) domains and two regions with EGF-like repeats (2). The N-terminal region also contains a cysteine-rich domain essential for MMP (3) and Wnt7 binding (4, 5). RECK is normally expressed in all human and mammalian cells (2, 6) while undetectable or downregulated in malignant and cancer cells (1, 2). There is a strong correlation between expression of RECK and prognosis making it a prognostic marker target in several cancers including colorectal, breast, and pancreatic (1, 3, 7-9). Polymorphisms in RECK leads to increased cancer susceptibility (10). RECK's ability to bind several proteins confers complex functionality. RECK is known to bind and inhibit MMPs (1, 2, 11), interact with ADAMTS10 (12), modulate Notch signaling (13), promote p53 signaling (14) and act as a selective Wnt7 receptor through binding of Gpr124 (4). RECK acts as a tumor suppression gene by inhibiting angiogenesis, invasion, and metastasis through its role in the regulation and signaling within the extracellular matrix (1, 3, 6). Through its interaction with Wnt7, RECK promotes angiogenesis and regulates the blood-brain barrier in CNS by mediating canonical Wnt/beta-catenin signaling (4).

References:

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