

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human CD63 protein			
	MD	Human IgG ₁ (Pro100-Lys330)	IEGR	Human CD63 (Ala103-Val203) Accession # P08962-1
	N-terminus		C-terminus	
N-terminal Sequence	Met			
Analysis				
Structure / Form	Disulfide-linked homodimer			
Predicted Molecular Mass	38 kDa			

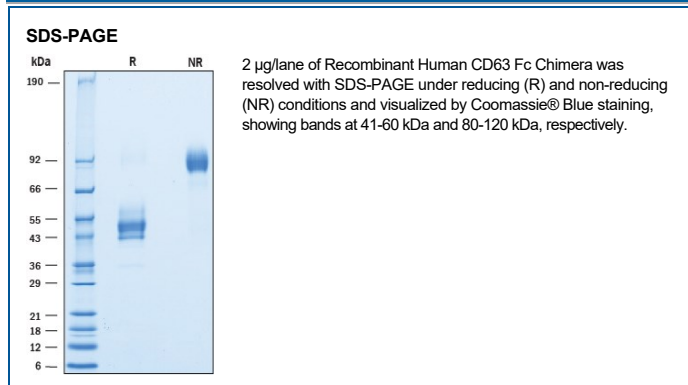
SPECIFICATIONS

SDS-PAGE	41-60 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant CD63 Fc Chimera is used at 5 µg/mL (100 µL/well), the concentration of Biotinylated Recombinant Human TIMP-1 that produces 50% optimal binding response is 3-15 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 PBS. 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	<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 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

CD63, also known as Tspan-30, is a member of the tetraspanin family of proteins that mediate signal transduction events which play a role in the regulation of cell development, activation, growth and motility (1, 2). These membrane proteins are characterized by the presence of four transmembrane domains, a small extracellular loop (SEL) and a large extracellular loop (LEL) (2, 3). Regions of the tetraspanin LEL are known to associate with integrins to regulate membrane protein trafficking, leukocyte recruitment, and adhesion processes (4, 5). Deficiency of CD63 is associated with Hermansky-Pudlak syndrome (6). Human CD63-LEL shares 67% and 66% aa sequence identity with mouse and rat CD63-LEL, respectively. CD63 has been identified as a cell surface binding partner for tissue inhibitor of metalloproteinase 1 (TIMP-1), modulating the tetraspanin/integrin signaling complex which regulates cell survival and polarization (7).

References:

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4. Tugues, S. *et al.* (2013) J. Biol. Chem. **288**:19060.
5. Yañez-Mo, M. *et al.* (2009) Trends Cell Biol. **19**:434.
6. Nishibori, M. *et al.* (1993) J. Clin. Invest. **91**:1775.
7. Jung, K.K. *et al.* (2006) EMBO J. **25**:3934.