

Recombinant Human CD63 Fc Chimera

Catalog Number: 5048-CD

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-termin				
N-terminal Sequence Analysis	Met				
Structure / Form	Disulfide-linked homodimer				
Predicted Molecular Mass	38 kDa				
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SPECIFICATIONS		
SDS-PAGE	41-60 kDa, reducing conditions	
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human BST-2/Tetherin (Catalog # 9939-BS) is immobilized at 2.5 μg/mL (100 μL/well), Recombinant CD63 Fc Chimera binds with an ED ₅₀ of 1-6 μg/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 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	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, \leq -20 °C under sterile conditions after reconstitution.



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DATA

When Recombinant Human BST-2/Tethrin (Catalog # 9939-BS) is immodibilized at 2.5 μ g/mL, 100 μ L/well, Recombinant Human CD63 Fc Chimera (Catalog # 5048-CD) binds with an ED₅₀ of 1-6 μ g/mL.

SDS-PAGE



2 µg/lane of Recombinant Human CD63 Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 41-60 kDa and 80-120 kDa, respectively.

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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:

- 1. Kang, M. et al. (2014) PLOS One. 9:e102817.
- 2. Yu, M. et al. (2016) J. Immunol. Res. 2016:1.
- 3. Chaiyadet, S. et al. (2017) Sci. Rep 7:14342.
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- 5. Yañez-Mo, M. et al. (2009) Trends Cell Biol. 19:434.
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- 7. Jung, K.K. et al. (2006) EMBO J. 25:3934.

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