Recombinant Human IGSF8/CD316 Fc Chimera

Catalog Number: 1241-S8

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human IGSF8/CD316 protein

Human IGSF8 (Arg28-Thr579) Accession # Q969P0-1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Arg28
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	85 kDa

SPECIFICATIONS

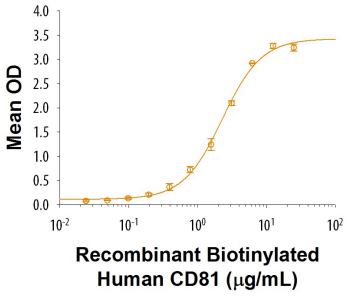
SDS-PAGE	86-113 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human IGSF8/CD316 Fc Chimera is immobilized at 1 µg/mL (100 µL/well), Biotinylated Recombinant CD81 Fc Chimera binds with an ED_{50} of 1.2-7.2 µg/mL
Endotoxin Level	<0.10 EU per 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	• 12 months from date of receipt, ≤ -20 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

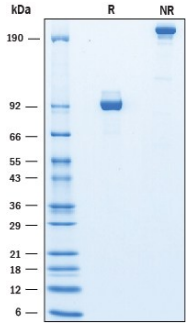
DATA

Binding Activity



When Recombinant Human IGSF8/CD316 Fc Chimera (Catalog # 1241-S8) is immobilized at 1 µg/mL (100 µL/well), Biotinylated Recombinant CD81 Fc Chimera binds with an ED_{50} of 1.2-7.2 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human IGSF8/CD316 Fc Chimera was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 86-113 kDa and 170-230 kDa, respectively.

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BACKGROUND

IGSF8 (Immunoglobulin superfamily member 8), also known as EWI-2, KCT-4, LIR-D1, and PGRL, is a 75-kDa cell surface protein belonging to the immunoglobulin superfamily (1). IGSF8 is widely expressed, with pronounced mRNA expression in the brain and protein expression on peripheral blood lymphocytes and hepatocytes where it colocalizes with CD81 (1-3). It strongly associates with tetraspanins CD9 and CD81 which may act as physical linkers to form a complex with α3β1 integrin that may regulate cell aggregation and motility on laminin-5 (4). Human IGSF8 is synthesized as a 613 aa protein that includes a 27 aa signal peptide, a 552 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 13 aa cytoplasmic tail. Within the ECD, human IGSF8 shares 91% and 90% aa sequence identity with mouse and rat IGSF8, respectively. IGSF8 is an inducible receptor for Heat Shock Protein A8 (HSPA8) on activated dendritic cells (5). IGSF8 can interact with α-Actinin to regulate T cell immune synapses and HIV viral infection (6). In human glioma patients, low IGSF8 expression correlates with shorter survival time. Studies have shown that re-expression of IGSF8 in malignant glioblastoma cell lines inhibited glioblastoma colony formation in soft agar and caused diminished cell motility and invasion (7).

References:

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3. Charrin, S. *et al.* (2003) Biochem. J. **373**:409.
4. Stipp, C.S. *et al.* (2003) J. Cell Biol. **163**:1167.
5. Kettner, S. *et al.* (2007) Mol Cell Biol. **27**:7718.
6. Gordón-Alonso, M. *et al.* (2012) J Immunol **189**:689.
7. Kolesnikova, T. *et al.* (2009) Neoplasia.**11**:77.

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