Recombinant Human FPRP/PTGFRN Fc Chimera

Catalog Number: 10433-FP

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human FPRP/PTGFRN protein

Human FPRP/PTGFRN (Arg22-Lys830) Accession # Q9P2B2.2	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Arg22
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	117 kDa

SPECIFICATIONS

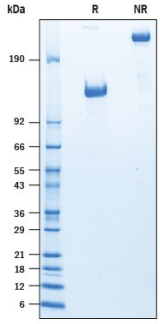
SDS-PAGE	120-140 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human FPRP/PTGFRN Fc Chimera (Catalog # 10433-FP) is immobilized at 5 µg/mL (100 µL/well), Biotinylated Recombinant Human CD9 Fc Chimera binds with an ED_{50} of 3-18 µg/mL.
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	**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

SDS-PAGE



2 µg/lane of Recombinant Human FPRP/PTGFRN Fc Chimera Protein (Catalog # 10433-FP) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 120-140 kDa and 240-280 kDa, respectively.

BACKGROUND

Prostoglandin F2 receptor negative regulator (PTGFRN), also known as CD9P-1, EWI-F, and CD315, is an integral type I transmembrane glycoprotein expressed on subsets of cells in ovary, uterus, lung, and heart (1-4). PTGFRN is a member of the Glu-Trp-Ile (EWI) subfamily within the Ig superfamily of molecules. The extracellular domain (ECD) of mature human PTGFRN contains six Ig-like C2-type domains and an EWI motif that acts as binding sites for actin-linking ezrin-radixin-moesin (ERM) proteins (1). The ECD of human PTGFRN shares 90% and 89% amino acid identity with mouse and rat PTGFRN, respectively. PTGFRN forms complexes with tetraspanins CD9 and CD81, linking these molecules to the intracellular actin cytoskeleton and regulating cell motility and polarity (1, 2). Increased expression of CD9 and CD81 inhibits the HEK/PTGFRN cell motility on collagen-I (3). In addition, PTGFRN expression positively correlates with the metastatic status of hLT and the upregulation of PTGFRN expression could be a mechanism involved in the loss of CD9 in solid tumors, such as in lung cancer (4)

References:

1. Sala-Valdes, M. *et al.* (2006) J Biol Chem. **281**:19665.
2. Stipp, C. S. *et al.* (2001) J Biol Chem. **276**:4853.
3. Chambrion, C. *et al.* (2010) PLoS One. **5**:11219.
4. Guilmain, W. *et al.* (2011) Br. J Cancer. **104**:496.

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