

Recombinant Human PIGR Protein (His Tag)

Catalog Number: PKSH033446

Note: Centrifuge before opening to ensure complete recovery of vial contents.

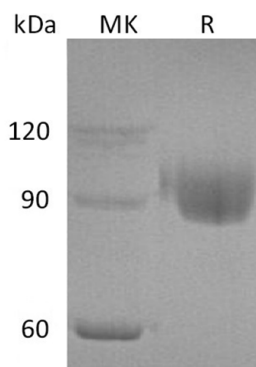
Description

Species	Human
Source	HEK293 Cells-derived Human PIGR protein Lys 19-Arg638, with an C-terminal His
Calculated MW	68.9 kDa
Observed MW	88 kDa
Accession	P01833
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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The human Polymeric Immunoglobulin Receptor (pIgR) is a 100 kDa type I transmembrane glycoprotein. Its precursor is 764 amino acids. It contains an 18 amino acid signal sequence, a 620 amino acid extracellular region, a 23 amino acid transmembrane fragment, and a 103 amino acid cytoplasmic domain. pIgR is synthesized by secretory epithelial cells with five Ig-like domains in extracellular region, and transfer to the basolateral plasma membrane. For IgA and IgM polymers, in addition to α -heavy chains and light Ig chains, a short polypeptide named joining chain (J chain) is also contained and required. pIgR can bind larger polymers of IgA (pIgA) and pentameric IgM as a carrier that transports IgA and IgM across epithelium. The receptor-ligand complexes are endocytosed and transcytosed to the apical surface, then proteolytic cleavage of the sixth extracellular domain of pIgR and generate secretory IgA (SIgA), the pIgR fragment is referred to as secretory component (SC). SIgA is an important component of the mucosal immune system. SC has antimicrobial properties and protects SIgA from proteolytic degradation.