

Recombinant Human Polymeric Immunoglobulin Receptor Protein

Cat.NO.: TP04714

3th Edition

Synonyms: Polymeric Immunoglobulin Receptor; PIgR; Poly-Ig Receptor; Hepatocellular Carcinoma-Associated Protein TB6; PIGR

Description: 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 γ -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 a important component of the mucosal immune system. SC is anti-microbial properties and protects SIgA from proteolytic degradation

Form: PBS

Molecular Weight: 68.9 kDa

Sequences: Lys19-Arg638

Purity: > 95% by HPLC

Concentration:

Endotoxin Level: <1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.