



## Recombinant Protein Technical Manual

**Recombinant Human PIGR Protein (365 Ser/Gly, His Tag)(Active)**  
RPES1596

### Product Data:

**Product SKU:** RPES1596

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_002635.2

### Protein Information:

**Molecular Mass:** 69 kDa

**AP Molecular Mass:**

**Tag:** C-His

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized rhuman IgM at 2 µg/ml (100 µl/well) can bind biotinylated PIGR with a linear range of 0.945 ng/ml.2. When human human IgM is immobilized at 2 µg/ml (100 µl/well), PIGR inhibits 50% binding of biotinylated PIGR (0.062 µg/ml) at the concentration range of 0.03-20 µg/ml.

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** 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 sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

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

## Immunogen Information:

**Sequence:** Met 1-Arg 638, 365 Ser/Gly

## Background:

Polymeric immunoglobulin receptor, also known as PIGR, is a member of the immunoglobulin superfamily and a Fc receptor. The ectodomain of this receptor consists of five units with homology to the variable units of immunoglobulins and a transmembrane region, which also has some homology to certain immunoglobulin variable regions. PIGR is expressed on several glandular epithelia including those of liver and breast. The deduced amino-acid sequence has a length of 764 residues and shows an overall similarity of 56% and 64% with the rabbit and rat counterpart. PIGR mediates transcellular transport of polymeric immunoglobulin molecules, and thus facilitates the secretion of IgA and IgM. During this process, a cleavage occurs that separates the extracellular (known as the secretory component) from the transmembrane segment of PIGR.