

PIGR Protein, Human (HEK293, His)

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| Cat. No.: | HY-P71065 |
| Synonyms: | Polymeric Immunoglobulin Receptor; PIgR; Poly-Ig Receptor; Hepatocellular Carcinoma-Associated Protein TB6; PIGR |
| Species: | Human |
| Source: | HEK293 |
| Accession: | P01833 (K19-R638) |
| Gene ID: | 5284 |
| Molecular Weight: | Approximately 88.0 kDa |

PROPERTIES

AA Sequence

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| K S P I F G P E E V | N S V E G N S V S I | T C Y Y P P T S V N | R H T R K Y W C R Q |
| G A R G G C I T L I | S S E G Y V S S K Y | A G R A N L T N F P | E N G T F V V N I A |
| Q L S Q D D S G R Y | K C G L G I N S R G | L S F D V S L E V S | Q G P G L L N D T K |
| V Y T V D L G R T V | T I N C P F K T E N | A Q K R K S L Y K Q | I G L Y P V L V I D |
| S S G Y V N P N Y T | G R I R L D I Q G T | G Q L L F S V V I N | Q L R L S D A G Q Y |
| L C Q A G D D S N S | N K K N A D L Q V L | K P E P E L V Y E D | L R G S V T F H C A |
| L G P E V A N V A K | F L C R Q S S G E N | C D V V V N T L G K | R A P A F E G R I L |
| L N P Q D K D G S F | S V V I T G L R K E | D A G R Y L C G A H | S D G Q L Q E G S P |
| I Q A W Q L F V N E | E S T I P R S P T V | V K G V A G G S V A | V L C P Y N R K E S |
| K S I K Y W C L W E | G A Q N G R C P L L | V D S E G W V K A Q | Y E G R L S L L E E |
| P G N G T F T V I L | N Q L T S R D A G F | Y W C L T N G D T L | W R T T V E I K I I |
| E G E P N L K V P G | N V T A V L G E T L | K V P C H F P C K F | S S Y E K Y W C K W |
| N N T G C Q A L P S | Q D E G P S K A F V | N C D E N S R L V S | L T L N L V T R A D |
| E G W Y W C G V K Q | G H F Y G E T A A V | Y V A V E E R K A A | G S R D V S L A K A |
| D A A P D E K V L D | S G F R E I E N K A | I Q D P R L F A E E | K A V A D T R D Q A |
| D G S R A S V D S G | S S E E Q G G S S R | | |

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

PIGR Protein assumes a crucial role in mediating the selective transcytosis of polymeric IgA and IgM across mucosal epithelial cells, orchestrating a process essential for mucosal immunity. The protein binds polymeric IgA and IgM at the basolateral surface of epithelial cells, forming a complex that is subsequently transported across the cell and secreted at the apical surface. During this transit, a cleavage event occurs, separating the extracellular component, known as the secretory component, from the transmembrane segment. PIGR, through its N-linked glycans, ensures the anchoring of secretory IgA (sIgA) molecules to the mucus lining the epithelial surface, a critical mechanism for neutralizing extracellular pathogens. In its free form, PIGR may also function as a non-specific microbial scavenger, playing a role in preventing pathogen interaction with epithelial cells and contributing to the broader defense against potential infections.

Caution: Product has not been fully validated for medical applications. For research use only.

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