

PIGR Protein, Human (G365S, HEK293, His)

Cat. No.:	HY-P73377
Synonyms:	Polymeric Immunoglobulin Receptor; Poly-Ig Receptor; PIGR
Species:	Human
Source:	HEK293
Accession:	P01833 (M1-R638, G365S)
Gene ID:	5284
Molecular Weight:	80-90 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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