

Recombinant human pIgR protein

Catalog Number: ATGP3978

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

19-638aa

UniProt No.

P01833

NCBI Accession No.

NP_002635

Alternative Names

Polymeric immunoglobulin receptor, PIGR, PlgR, Poly-Ig receptor, Hepatocellular carcinoma-associated protein TB6, polymeric immunoglobulin receptor precursor

PRODUCT SPECIFICATION

Molecular Weight

68.9kDa (629aa)

Concentration

1mg/ml (determined by Absorbance at 280nm)

Formulation

Liquid. In Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 95% by SDS - PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured by its binding ability in a functional ELISA with Human IgM. The ED50 range ≤ 10 ug/ml.

Tag

His-Tag

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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Description

pIgR, also known as polymeric immunoglobulin receptor, is responsible for transcytosis of soluble dimeric IgAs and immune. This protein binds polymeric IgA and IgM at the basolateral surface of epithelial cells. The complex is then transported across the cell to be secreted at the apical surface. During this process, the cleavage occurs that separates the extracellular from the transmembrane segment. pIgR expression is under the strong regulation of cytokines, hormones, and pathogenic stimuli. The expression of pIgR is critically regulated by the pro-inflammatory cytokines, such as IL-1, IL-4, TNF- α , and IFN- γ . Recombinant human pIgR, fused to Histag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

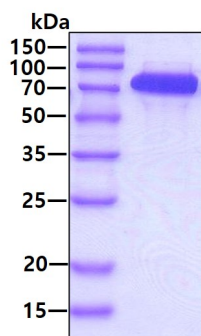
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 VIDSSGYVNP NYTGRIRLDI QGTGQLLFSV VINQLRLSDA GQYLCQAGDD SNSNKKNADL QVLKPEPELV YEDLRGCVTF
 HCALGPEVAN VAKFLCRQSS GENCDVVVNT LGKRAPAFEG RILLNPQDKD GSFSVVITGL RKEDAGRYLC GAHSDGQLQE
 GSPIQAWQLF VNEESTIPRS PTVVKGVAGG SVAVLCYPYR KESKSIKYWC LWEGAQNGRC PLLVDSEGWW KAQYEGRLSL
 LEEPNGTFT VILNQLTSRD AGFYWCLTNG DTLWRRTVEI KIIEGEPNLK VPGNVTAVLG ETLKVPCHFP CKFSSYEKYW
 CKWNNTGCQA LPSQDEGPSK AFVNCDENSR LVSLTLNLVT RADEGWYWCG VKQGHFYGET AAVYVAVEER
 KAAGSRDVSL AKADAAPDEK VLDSGFREIE NKAIQDPRLF AEEKAVADTR DQADGSRASV DSGSSEEQGG
 SSR<HHHHHH>

General References

- Giffroy D, et al, (2001) Scand J Immunol. 53:56-64.
- Kortum AN, et al, (2014) Immunogenetics. 66:267-279.
- Yue X, et al, (2017) Hepatolgy. 65:1948-1962.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

Recombinant human pIgR protein

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Human IgM is coated at 2 ug/ml (100 ul/well) can bind Human pIgR.
The ED50 range ≤ 10 ug/ml.

