

Human IGJ / Immunoglobulin J chain Protein (His Tag)

Catalog Number: 13015-H08E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

IGCJ; JCH

Protein Construction:

A DNA sequence encoding the mature form of human IGJ (NP_653247.1) (Gln 23-Asp 159) was fused with a polyhistidine tag at the C-terminus and a pelB signal peptide at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Gln 23

Molecular Mass:

The recombinant human IGJ comprises 147 amino acids and has a predicted molecular mass of 17 kDa. It migrates as an approximately 26 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

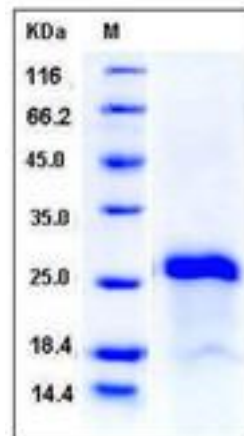
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Immunoglobulin J chain, also known as IGJ and IGCJ, is a secreted polypeptide which is the first immunoglobulin-related polypeptide expressed during the embryogenesis and differentiation of B cells in the fetal liver. The joining Immunoglobulin J chain is a small polypeptide, expressed by mucosal and glandular plasma cells, which regulates polymer formation of immunoglobulin (Ig)A and IgM. Immunoglobulin J chain / IGJ serves to link two monomer units of either IgM or IgA. In the case of IgM, the J chain-joined dimer is a nucleating unit for the IgM pentamer, and in the case of IgA it induces larger polymers. Immunoglobulin J chain / IGJ also help to bind these immunoglobulins to secretory component. J-chain incorporation into polymeric IgA (pIgA, mainly dimers) and pentameric IgM endows these antibodies with several salient features. Immunoglobulin J chain / IGJ is involved in creating the binding site for pIgR / SC in the Ig polymers, not only by determining the polymeric quaternary structure but apparently also by interacting directly with the receptor protein. Both the immunoglobulin J chain / IGJ and the pIgR/SC are key proteins in secretory immunity.

References

1. Zikan, J. et al., 1985, Proc Natl Acad Sci USA. 82 (17): 5905-9.
2. Koshland, M.E. et al., 1985, Annu Rev Immunol. 3: 425-53.
3. Iwase, T. et al., 1993, Cell Struct Funct. 18 (5): 297-302.

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