Rat CLEC14A / EGFR-5 Protein (Fc Tag)

Catalog Number: **80211-R02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

C14orf27; CEG1; EGFR-5; 1200003C23Rik; AI642649

Protein Construction:

A DNA sequence encoding the rat CLEC14A (Met1-Thr398) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: (75.4+12.7) % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Glu 22

Molecular Mass:

The recombinant rat CLEC14A/Fc is a disulfide-linked homodimer. The reduced monomer comprises 618 amino acids and has a predicted molecular mass of 67.6 kDa. The apparent molecular mass of the protein is approximately 110 and 37 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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:

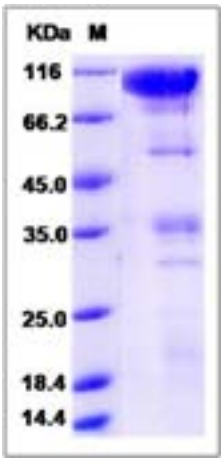
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

C-type lectin domain family 14 member A, also known as Epidermal growth factor receptor 5 and CLEC14A, is a member of the C-type lectin domain (CTLD) family that contains one c-type lectin domain and one EGF-like domain. Mouse CLEC14A is a 459 amino acid single-pass type I membrane protein. The superfamily of proteins containing C-type lectin-like domains (CTLDs) is a large group of extracellular Metazoan proteins with diverse functions. The CTLD structure has a characteristic double-loop ('loop-in-a-loop') stabilized by two highly conserved disulfide bridges located at the bases of the loops, as well as a set of conserved hydrophobic and polar interactions. Members of the C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily share a common fold and are involved in a variety of functions, such as generalized defense mechanisms against foreign agents, discrimination between healthy and pathogen-infected cells, and endocytosis and blood coagulation. Genome-level studies on human, elegans and melanogaster demonstrated almost complete divergence among invertebrate and mammalian families of CTLD-containing proteins (CTLDcps). The vertebrate CTLDcp families were essentially formed early in vertebrate evolution and are completely different from the invertebrate families. The composition of the CTLDcp superfamily in fish and mammals suggests that large scale duplication events played an important role in the evolution of vertebrates.

References

1. Ebner S, et al. (2003) Evolutionary analysis reveals collective properties and specificity in the C-type lectin and lectin-like domain superfamily. Proteins. 53(1): 44-55.
2. Zelensky AN, et al. (2005) The C-type lectin-like domain superfamily. Gready JE. FEBS J. 272(24): 6179-217.