

Mouse CXADR Protein (His & Fc Tag)

Catalog Number: 50019-M03H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

2610206D03Rik; AU016810; AW553441; CAR; MCAR; MCVADR

Protein Construction:

A DNA sequence encoding the mouse CXADR (NP_001020363.1) extracellular domain (Met 1-Gly 237) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

Measured by the ability of the immobilized protein to support the adhesion of mouse neutrophils. When 5×10^4 cells/well are added to CXADR-coated plates (4 $\mu\text{g/ml}$ and 100 $\mu\text{l/well}$), approximately 20%-40% will adhere specifically after 60 minutes at 37°C.

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 °C

Predicted N terminal: Leu 20

Molecular Mass:

The recombinant mouse CXADR/Fc is a disulfide-linked homodimer. The reduced monomer consists of 466 amino acids and has a predicted molecular mass of 52 kDa. As a result of glycosylation, the apparent molecular mass of rm CXADR/Fc monomer migrates with an apparent molecular mass of 60-65 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:

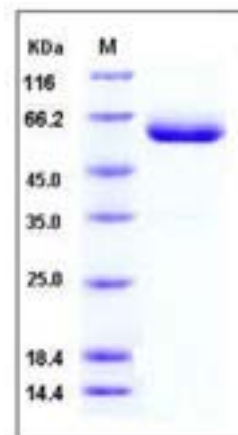
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

CXADR (coxsackie virus and adenovirus receptor), also known as CAR, is a type I transmembrane glycoprotein belonging to the CTX family of the Ig superfamily, and is essential for normal cardiac development in the mouse. Proposed as a homophilic cell adhesion molecule, CXADR is a component of the epithelial apical junction complex that is essential for the tight junction integrity, and probably involved in transepithelial migration of polymorphonuclear leukocytes (PMN). Mature mouse CXADR structurally comprises a 218 aa extracellular domain (ECD) with a V-type (D1) and a C2-type (D2) Ig-like domain, a 21 aa transmembrane segment and a 107 aa intracellular domain, among which, D1 is thought to be responsible for homodimer formation in trans within tight junctions. The ECD of mouse CXADR shares 97%, 90% sequence identity with the corresponding regions of rat, human CXADR.

References

1. Tomko, R.P. et al., 1997, Proc. Natl. Acad. Sci. U.S.A. 94 (7): 3352-3356.
2. van Raaij, M.J. et al., 2001, Structure. 8 (11): 1147-1155.
3. Cohen, C.J. et al., 2001, J. Biol. Chem. 276 (27): 25392-25398.

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