



# Recombinant Protein Technical Manual

**Recombinant Human CXADR/CAR Protein (His Tag)(Active)**  
RPES2887

## Product Data:

**Product SKU:** RPES2887

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_001329.1

## Protein Information:

**Molecular Mass:** 25.6 kDa

**AP Molecular Mass:** 35 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of mouse neutrophils. When  $5 \times 10^4$  cells/well are added to CXADR coated plates (4 µg/ml and 100 µl/well), approximately 20%-40% will adhere specifically after 60 minutes at 37 °C.

**Purity:** > 92 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Coxsackievirus and Adenovirus Receptor; CAR; hCAR; CVB3-Binding Protein; Coxsackievirus B-Adenovirus Receptor; HCVADR; CXADR; CAR

## Immunogen Information:

**Sequence:** Met 1-Gly 237

## Background:

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.