

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CXADR in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant mouse CXADR is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CXADR Leu20-Gly237 Accession # P78310
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

CXADR (coxsackie and adenovirus receptor), also known as CAR, is a 46 kDa type I transmembrane glycoprotein that belongs to the CTX family of the Ig superfamily (1-3). CXADR has received attention as a receptor that facilitates gene transfer mediated by most adenoviruses (1, 2). It is also an adhesion molecule within junctional complexes, notably between epithelial cells lining body cavities and within myocardial intercalated discs (1, 2, 4). CXADR is essential for normal cardiac development in the mouse (7). It is expressed throughout brain neuroepithelium during development, but mainly in ependymal cells in the adult (4-6). The 365 amino acid (aa) human CXADR contains a 19 aa signal sequence, 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. D1 is thought to be responsible for homodimer formation in trans within tight junctions (2). The fiber knob of adenoviruses attaches at a similar site, and evidence suggests that disruption of tight junctions facilitates virus binding (1, 2). The C-terminus interacts with several cytoplasmic junctional proteins, microtubules and the actin cytoskeleton (1, 8, 9). The ECD of human CXADR shares 90% aa sequence identity with mouse, rat, and porcine CXADR, and 92% and 89% aa identity with bovine and canine CXADR, respectively. An alternately spliced isoform (CXADR2) that diverges in the C-terminal 15 aa shows a similar expression pattern (4, 10). Transcription of splice variants that produce soluble forms of CXADR has been detected, and secreted forms in serum and pleural fluid potentially block viral infection (11).

PRODUCT SPECIFIC NOTICES

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