Human/Mouse CXADR Alexa Fluor® 350-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 331930

Catalog Number: FAB3724U

100 µg

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects mouse CXADR in direct ELISAs and Western blots. In direct ELISAs and Western blots, 100% cross-reactivity with recombinant human CXADR is observed.
Source	Monoclonal Rat IgG_{2B} Clone # 331930
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CXADR Leu20-Gly237 Accession # P97792
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 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) mouse 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). A PDZ binding motif at the C-terminus interacts with several cytoplasmic junctional proteins (1). The ECD of mouse CXADR shares 97%, 90%, 89%, 89% and 88% aa sequence identity with the corresponding regions of rat, human, bovine, porcine and canine CXADR, respectively. An alternately spliced isoform (CXADR2) that diverges in the C-terminal 15 aa shows the same expression pattern, but may show different subcellular localization (4, 8). Transcription of other splice variants has been detected, but not their translation. A secreted form identified in serum and pleural fluid can block viral infection (9).

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