Mouse CD74 Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7478R
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CD74 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant human CD74 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant mouse CD74 Gln56-Leu215 Accession # NP_034675
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.
Immunohistochemistry	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

CD74 (also known as H2 class II histocompatibility antigen gamma chain and Ia antigen-associated invariant chain/Ii) is 31-41 kDa glycoprotein, member of no known protein family. It is expressed by multiple cell types, including dendritic cells, macrophages, immature and mature B cells, type II greater alveolar epithelial cells and colonic epithelium. CD74 is best known as an ER-embedded trimeric chaperone that directs MHC class II dimers through the endosome and into the cell membrane. When embedded in the endosome, it undergoes cleavage that both facilitates MHC dimer transit, and generates a cytosolic signaling fragment. It also appears on the cell surface where, in conjunction with CD44 (and possibly c-met), it binds MIF, inducing either cell proliferation, cell survival,or cytokine release. Mouse CD74 is a 279 amino acid (aa) type II transmembrane protein (SwissProt P04441). It possesses a 30 aa cytoplasmic region plus a 224 aa luminal/extracellular domain (aa 56-279) that contains one thyroglobulin type-1 repeat (aa 193-254). CD74 is known to be phosphorylated on Ser9, and occasionally undergo glycanation with chrondroitin at Ser265 (on monocytes and B cells). There are multiple potential splice forms. The isoform used for antibody formation by R&D Systems, Inc. exhibits a deletion of aa 192-255 (GenBank NP_034675). Two other splice forms show either the same deletion just described coupled to a four aa substitution for aa 277-279, or a 10 aa substitution for aa 131-279. Over aa 56-215 of the NP_034675 isoform, mouse CD74 shares 86% and 69% aa sequence identity with rat and human CD74, respectively.

PRODUCT SPECIFIC NOTICES

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