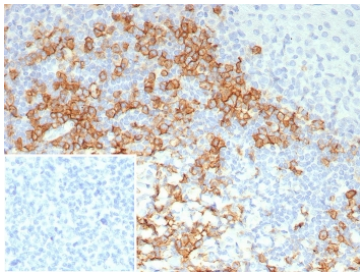
CD38 Antibody / Cell Surface Ectoenzyme Marker Antibody [clone CD38/8114R] (V5038)

Catalog No.	Formulation	Size
V5038-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5038-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5038SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD38/8114R
Purity	Protein A/G affinity
UniProt	P28907
Localization	Cell Surface, Cytoplasm
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD38 Antibody / Cell Surface Ectoenzyme Marker Antibody is available for research use only.



CD38 Antibody human tonsil tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human tonsil tissue using CD38 antibody clone CD38/8114R. Strong membranous HRP-DAB brown staining highlights lymphocyte populations within interfollicular regions and surrounding germinal centers, consistent with cell surface localization of this ectoenzyme on immune cells. The staining pattern demonstrates prominent membrane-associated signal with minimal background in surrounding lymphocytes. Inset: PBS was used in place of the primary antibody as a secondary antibody negative control. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to antibody incubation.

Description

CD38 (CD38) is a multifunctional type II transmembrane glycoprotein that functions as a cell surface ectoenzyme, catalyzing reactions involved in NAD metabolism and the generation of signaling intermediates such as cyclic ADP-ribose. As a member of the ADP-ribosyl cyclase family, CD38 occupies a unique position among immune markers by combining structural cell surface localization with active enzymatic function. It is widely expressed on plasma cells, activated T and B lymphocytes, natural killer cells, and additional immune cell populations, where it contributes to both cellular identity and biochemical activity at the plasma membrane.

CD38 Antibody / Cell Surface Ectoenzyme Marker Antibody is uniquely positioned for studies focused on extracellular enzymatic activity and membrane-associated signaling processes, enabling detection of CD38 in systems where NAD turnover and cell surface catalysis are of interest. CD38 antibody, also known as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is widely used in research examining how extracellular metabolic reactions influence immune cell behavior and intercellular signaling networks.

CD38 is predominantly localized to the plasma membrane with its catalytic domain oriented toward the extracellular environment, allowing it to regulate substrate availability and generate signaling molecules outside the cell. This orientation enables CD38 to modify the extracellular microenvironment while simultaneously initiating intracellular signaling cascades, linking external metabolic activity with internal cellular responses. The ability to detect CD38 at the cell surface therefore provides insight into both enzymatic function and cellular positioning within tissues.

As an ectoenzyme, CD38 catalyzes the conversion of NAD into cyclic ADP-ribose and related metabolites that act as second messengers in calcium signaling pathways. These reactions influence immune cell activation, proliferation, and communication, making CD38 a key mediator of signaling processes that originate at the cell surface. Detection of CD38-positive cells often reflects populations actively engaged in metabolic and signaling interactions within immune environments.

CD38-mediated enzymatic activity contributes to shaping the extracellular milieu, particularly in lymphoid tissues and sites of inflammation where immune cells interact closely. By regulating substrate availability and generating signaling intermediates, CD38 influences the behavior of neighboring cells and supports coordinated immune responses. This functional role distinguishes CD38 from markers that serve solely as identifiers of cell type.

The ability to detect CD38 as a cell surface enzyme is particularly valuable in studies examining the interface between metabolism and signaling. It allows researchers to identify cells that are not only present within a system but also actively participating in biochemical processes that regulate immune function. This is especially relevant in complex tissue environments where extracellular signaling plays a critical role in cellular coordination.

CD38 Antibody CD38/8114R for ectoenzyme detection therefore provides a powerful tool for studying membrane-associated enzymatic activity, extracellular signaling processes, and their impact on immune cell function, enabling detailed investigation of how metabolic reactions at the cell surface influence cellular communication and biological outcomes.

This antibody is part of our CD38 antibody collection, which includes application-specific formats for immunohistochemistry, flow cytometry, western blot, and immunofluorescence research.

Application Notes

Optimal dilution of the CD38 Antibody / Cell Surface Ectoenzyme Marker Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 200-300) from the human protein was used as the

immunogen for the CD38 antibody.

Storage

Aliquot the CD38 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD38 ectoenzyme antibody, CD38 cell surface enzyme antibody, CD38 ADPRC1 enzyme antibody, CD38 membrane enzyme marker antibody

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