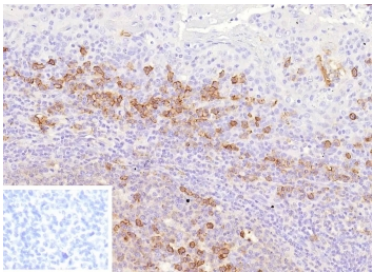
ADP-ribosyl cyclase 1 Antibody / CD38 Enzymatic Activity Antibody [clone CD38/9332] (V5826)

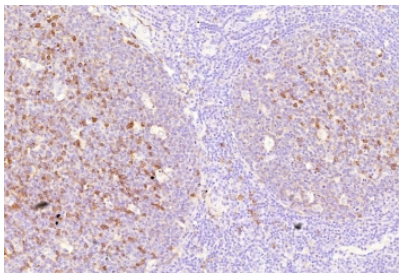
Catalog No.	Formulation	Size
V5826-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5826-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5826SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

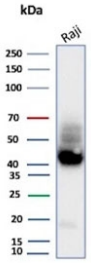
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CD38/9332
Purity	Protein G affinity
UniProt	P28907
Localization	Membrane
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This ADP-ribosyl cyclase 1 Antibody / CD38 Enzymatic Activity Antibody is available for research use only.



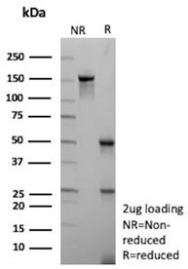
ADP-ribosyl cyclase 1 Antibody human tonsil tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human tonsil tissue using ADP-ribosyl cyclase 1 antibody clone CD38/9332. Strong membranous and cytoplasmic HRP-DAB brown staining highlights plasma cells and activated lymphocytes within interfollicular regions and around germinal centers, consistent with expression of this NAD-metabolizing ectoenzyme in immune cell populations. The staining pattern demonstrates dense immune cell distribution with clear contrast against predominantly negative background 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.



ADP-ribosyl cyclase 1 Antibody human tonsil tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human tonsil tissue using ADP-ribosyl cyclase 1 antibody clone CD38/9332. Strong membranous and cytoplasmic HRP-DAB brown staining highlights plasma cells and activated lymphocytes distributed throughout interfollicular regions and germinal center-associated areas, consistent with expression of this NAD-metabolizing enzyme in immune cell populations. The staining pattern demonstrates widespread immune cell localization with clear contrast against predominantly negative background 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.



ADP-ribosyl cyclase 1 Antibody human Raji lysate WB. Western blot analysis of CD38 expression in human Raji cell lysate using ADP-ribosyl cyclase 1 antibody clone CD38/9332. Lane 1: human Raji cell lysate. A band is detected at approximately 40â€“45 kDa, consistent with the predicted molecular weight of CD38, with higher apparent molecular weight reflecting glycosylation of this NAD-metabolizing enzyme. The detection profile supports its role in studies of enzymatic activity and second messenger generation in immune cells.



SDS-PAGE analysis of purified, BSA-free ADP-ribosyl cyclase 1 antibody (clone CD38/9332) as confirmation of integrity and purity.

Description

ADP-ribosyl cyclase 1 (CD38) is a multifunctional ectoenzyme that catalyzes the conversion of NAD into cyclic ADP-ribose and related metabolites, functioning as a key regulator of calcium-dependent signaling and cellular metabolic processes. As a member of the ADP-ribosyl cyclase family, CD38 exhibits both cyclase and NAD glycohydrolase activity, enabling it to generate second messengers that directly influence intracellular signaling cascades. This catalytic capability distinguishes CD38 from conventional cell surface markers, positioning it as an active enzymatic component of cellular regulation rather than solely a structural identifier.

ADP-ribosyl cyclase 1 Antibody / CD38 Enzymatic Activity Antibody (clone CD38/9332) is uniquely positioned for studies focused on the catalytic function of CD38, enabling detection of the enzyme in systems where NAD turnover and second messenger generation are central to biological investigation. ADP-ribosyl cyclase 1 antibody, also referred to as CD38 enzyme antibody or ADPRC1 antibody, is widely used in research examining enzyme-driven signaling pathways and the biochemical mechanisms underlying immune and cellular responses.

CD38 catalyzes the formation of cyclic ADP-ribose, a potent intracellular messenger that regulates calcium release from intracellular stores such as the endoplasmic reticulum. This reaction links extracellular NAD metabolism to intracellular calcium mobilization, allowing CD38 to function as a biochemical bridge between metabolic substrate availability and signal transduction. Detection of CD38 therefore identifies cells capable of generating these signaling intermediates and participating in enzyme-mediated communication networks.

In addition to cyclase activity, CD38 exhibits NAD glycohydrolase activity, contributing to the breakdown of NAD and modulation of extracellular NAD pools. This dual enzymatic function enables CD38 to regulate both the production of signaling molecules and the availability of metabolic substrates, influencing cellular behavior at multiple levels. As a

result, CD38 plays a central role in coordinating metabolic and signaling pathways within the cellular microenvironment.

Cells expressing CD38 are often associated with active signaling states, where enzyme-mediated generation of second messengers supports processes such as activation, proliferation, and communication. The catalytic activity of CD38 is therefore closely linked to functional cellular states, making its detection particularly valuable in studies examining dynamic signaling processes and metabolic regulation.

CD38 enzymatic function also contributes to shaping the extracellular environment by regulating NAD availability and generating metabolites that influence neighboring cells. This expands its role beyond individual cell signaling to include modulation of local signaling landscapes within tissues, particularly in immune-rich environments where intercellular communication is critical.

As a mouse monoclonal antibody, clone CD38/9332 provides consistent recognition of CD38, supporting reproducible detection of the enzyme across experimental systems. The monoclonal format ensures stable epitope-specific binding, enabling reliable identification of CD38 in studies focused on catalytic activity and biochemical function.

ADP-ribosyl cyclase 1 Antibody clone CD38/9332 therefore provides a specialized tool for investigating CD38 enzymatic activity, supporting detailed analysis of NAD metabolism, second messenger generation, and enzyme-driven signaling pathways that regulate cellular function in diverse biological contexts.

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 ADP-ribosyl cyclase 1 Antibody / CD38 Enzymatic Activity Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-200 from human CD38 protein was used as the immunogen for the ADP-ribosyl cyclase 1 antibody.

Storage

Aliquot the ADP-ribosyl cyclase 1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

ADP-ribosyl cyclase 1 antibody, CD38 enzyme activity antibody, CD38 catalytic function antibody, CD38 ADPRC1 enzyme antibody, CD38 NAD hydrolase antibody