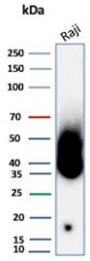
CD38 Antibody / Immunometabolism NAD Signaling Antibody [clone CD38/8335R] (V5015)

Catalog No.	Formulation	Size
V5015-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5015-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5015SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

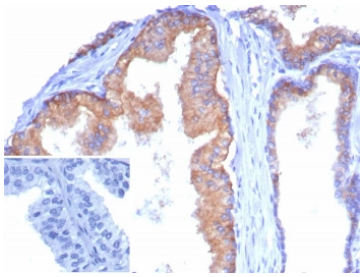
Recombinant RABBIT MONOCLONAL

Bulk quote request

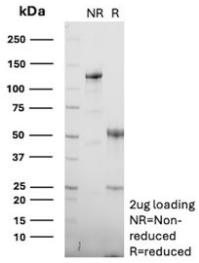
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	CD38/8335R
Purity	Protein A/G affinity
UniProt	P28907
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This CD38 Antibody / Immunometabolism NAD Signaling Antibody is available for research use only.



CD38 Antibody human Raji lysate WB. Western blot analysis of CD38 expression in human Raji cell lysate using CD38 antibody. Lane 1: human Raji cell lysate. A band is detected at approximately 40-45 kDa, consistent with the predicted molecular weight of CD38, with higher apparent molecular weight reflecting glycosylation of this NAD-metabolizing cell surface protein. The detection profile supports its role in studies of immunometabolism and NAD-dependent signaling pathways in immune cells.



CD38 Antibody human tonsil tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human tonsil tissue using CD38 antibody clone CD38/8335R. Strong membranous and cytoplasmic HRP-DAB brown staining highlights plasma cells and activated lymphocytes within interfollicular regions, reflecting metabolically active immune cell populations consistent with NAD-dependent signaling activity. 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.



SDS-PAGE analysis of purified, BSA-free CD38 antibody (clone CD38/8335R) as confirmation of integrity and purity.

Description

CD38 (CD38) is a multifunctional type II transmembrane glycoprotein and ectoenzyme that plays a central role in immunometabolism through regulation of NAD metabolism and generation of cyclic ADP-ribose. As a member of the ADP-ribosyl cyclase family, CD38 catalyzes the conversion of NAD into signaling molecules that influence intracellular calcium dynamics and metabolic pathways. It is widely expressed on plasma cells, activated lymphocytes, natural killer cells, and other immune populations, linking its expression to both cellular identity and metabolic function.

CD38 Antibody / Immunometabolism NAD Signaling Antibody is uniquely positioned for studies examining the metabolic and signaling functions of CD38, enabling detection of CD38 expression in systems where NAD-dependent pathways are of interest. CD38 antibody, also referred to as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is widely used in research focused on immune cell metabolism, signaling regulation, and the relationship between metabolic state and immune activity.

CD38 enzymatic activity regulates the availability of NAD, a key cofactor in cellular metabolism, and generates cyclic ADP-ribose, which functions as a second messenger in calcium signaling pathways. These processes influence a range of cellular functions, including activation, proliferation, and differentiation of immune cells. As a result, CD38 expression is closely associated with metabolically active and functionally engaged immune populations.

In immune cells, CD38-mediated NAD metabolism contributes to regulation of cellular energy balance and signaling cascades that coordinate immune responses. Changes in CD38 expression can reflect shifts in metabolic demand, activation status, and cellular differentiation, making it a valuable marker for studying immunometabolic dynamics. Detection of CD38 therefore provides insight into both metabolic activity and functional state within immune populations.

CD38 is increasingly studied in the context of metabolic regulation within the immune system, where its activity influences interactions between metabolism and immune signaling. This includes roles in shaping cellular responses to environmental cues and regulating pathways that support immune cell function. Detection of CD38 supports investigation of how metabolic pathways contribute to immune cell behavior and how these processes are altered in disease states.

In addition to its metabolic functions, CD38 contributes to broader signaling networks that integrate metabolic and immune processes. Its dual role as both an enzyme and a surface marker enhances its value in studies examining the interface between metabolism and immune regulation. This makes CD38 particularly relevant in research focused on immune cell activation, differentiation, and functional specialization.

The ability to detect CD38 in metabolically active cells provides a powerful tool for studying immunometabolism, enabling identification of cell populations engaged in NAD-dependent signaling pathways. This supports analysis of metabolic heterogeneity within immune systems and contributes to a deeper understanding of immune function at the molecular level.

CD38 Antibody CD38/8335R for immunometabolism research therefore enables detailed investigation of NAD signaling pathways and metabolic regulation in immune cells, supporting studies of cellular activation, energy balance, and functional immune responses across diverse biological systems.

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 / Immunometabolism NAD Signaling 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 NAD metabolism antibody, CD38 immunometabolism antibody, CD38 ADPRC1 enzyme antibody, CD38 metabolic signaling antibody, CD38 immune metabolism marker antibody