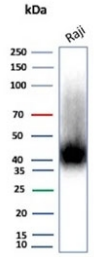
CD38 Antibody / Immune Cell Differentiation Marker Antibody [clone rCD38/8334] (V5037)

Catalog No.	Formulation	Size
V5037-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5037-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5037SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

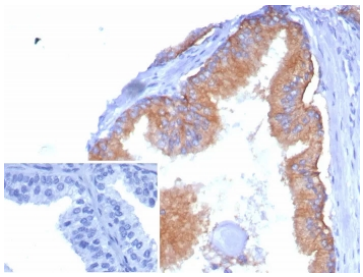
Recombinant | MOUSE MONOCLONAL

Bulk quote request

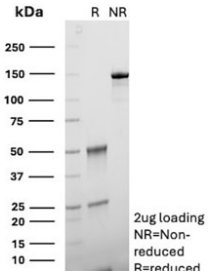
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCD38/8334
Purity	Protein A/G affinity
UniProt	P28907
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This CD38 Antibody / Immune Cell Differentiation Marker 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 clone rCD38/8334. 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 cell surface protein. The detection profile supports its role in studies of immune cell differentiation and maturation across B cell-derived populations.



CD38 Antibody human tonsil tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human tonsil tissue using CD38 antibody clone rCD38/8334. Strong membranous and cytoplasmic HRP-DAB brown staining highlights plasma cells and activated lymphocytes within interfollicular regions and around germinal centers, consistent with a differentiation-associated expression pattern across immune cell populations. The staining demonstrates variable intensity among positive cells, reflecting heterogeneity in maturation state, 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 rCD38/8334) as confirmation of integrity and purity.

Description

CD38 (CD38) is a type II transmembrane glycoprotein and ectoenzyme that plays a central role in immune cell differentiation and maturation, with expression levels that vary across developmental and activation states of lymphoid cells. It is widely expressed on plasma cells, activated T and B lymphocytes, and additional immune populations, where its expression reflects progression through differentiation pathways and functional specialization. This dynamic regulation makes CD38 a valuable marker for tracking immune cell lineage transitions and maturation states.

CD38 Antibody / Immune Cell Differentiation Marker Antibody is uniquely positioned for studies examining immune cell development and maturation, enabling detection of CD38 expression across different stages of lymphocyte differentiation. CD38 antibody, also known as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is widely used to characterize differentiation pathways and to identify transitions between naÃƒÂ¯Ã‚Â¨ve, activated, and terminally differentiated immune cell populations.

During B cell development, CD38 expression increases as cells progress toward plasma cell differentiation, where it reaches high levels associated with antibody secretion. This progressive upregulation allows CD38 to serve as a marker for identifying late-stage differentiation and distinguishing plasma cells from earlier developmental forms. The strong expression of CD38 in plasma cells provides a clear endpoint marker for antibody-secreting lineage commitment.

In T cells and other immune populations, CD38 expression reflects activation-associated differentiation, where increased expression accompanies functional maturation and acquisition of effector capabilities. This makes CD38 a useful marker for identifying cells that have undergone activation-driven changes and progressed toward specialized functional states.

The dynamic expression pattern of CD38 provides a continuous readout of immune cell state, capturing both lineage identity and progression through differentiation pathways. Detection of CD38 enables mapping of immune cell development and identification of shifts in population composition in response to physiological or experimental conditions.

Beyond its role as a marker, CD38 contributes functionally to differentiation processes through its involvement in signaling and metabolic pathways. Its enzymatic activity influences intracellular signaling cascades that regulate gene expression and cellular behavior, linking expression to the biological mechanisms underlying immune cell maturation.

CD38 is widely used in research focused on adaptive immune responses, immune system development, and cellular

differentiation, where understanding the progression of immune cells through distinct stages is essential for interpreting biological outcomes. Its expression provides both phenotypic and functional insight into immune system dynamics.

CD38 Antibody rCD38/8334 for immune cell differentiation studies therefore enables detailed analysis of lymphocyte maturation and lineage progression, supporting investigation of developmental pathways and functional specialization within the immune system.

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 / Immune Cell Differentiation 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 differentiation marker antibody, CD38 lymphocyte differentiation antibody, CD38 plasma cell differentiation marker, CD38 immune maturation marker