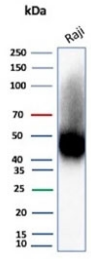
CD38 Antibody / Calcium Signaling Pathway Antibody [clone rCD38/8045] (V5035)

Catalog No.	Formulation	Size
V5035-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5035-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5035SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

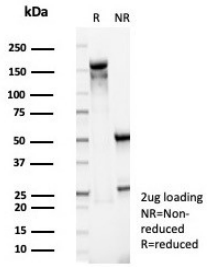
Recombinant | MOUSE MONOCLONAL

Bulk quote request

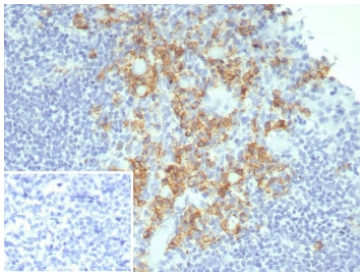
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rCD38/8045
Purity	Protein A/G affinity
UniProt	P28907
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This CD38 Antibody / Calcium Signaling Pathway 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 rCD38/8045. 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 calcium-dependent signaling pathways and intracellular signal transduction in immune cells.



SDS-PAGE analysis of purified, BSA-free CD38 antibody (clone rCD38/8045) as confirmation of integrity and purity.



IHC staining of FFPE human tonsil tissue with CD38 antibody (clone rCD38/8045). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

CD38 (CD38) is a type II transmembrane glycoprotein and ectoenzyme that plays a critical role in calcium signaling through its regulation of cyclic ADP-ribose production. As a member of the ADP-ribosyl cyclase family, CD38 catalyzes the formation of second messengers that trigger release of calcium from intracellular stores, linking its expression directly to signaling pathways that control immune cell activation, proliferation, and functional responses. It is widely expressed on plasma cells, activated lymphocytes, and other immune cell populations, where it contributes to both signaling and cellular communication.

CD38 Antibody / Calcium Signaling Pathway Antibody is uniquely positioned for studies examining intracellular signaling mechanisms, enabling detection of CD38 in systems where calcium-dependent pathways are of interest. CD38 antibody, also known as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is widely used in research focused on signal transduction, immune activation, and cellular communication.

Through its enzymatic activity, CD38 generates cyclic ADP-ribose, a key mediator of calcium release from intracellular stores. This signaling mechanism plays an essential role in lymphocyte activation and other immune processes, linking CD38 expression to functional signaling capacity. Detection of CD38 therefore provides insight into cells that are actively engaged in signaling pathways.

In immune cells, calcium signaling is a central regulator of activation, proliferation, and effector function. CD38 contributes to these processes by controlling the production of signaling molecules that initiate calcium mobilization. As a result, CD38 expression is closely associated with signaling-active cells and reflects engagement of intracellular signaling pathways.

CD38 is frequently studied in the context of signal transduction networks, where it influences communication between cells and coordination of immune responses. Detection of CD38 supports analysis of signaling dynamics and helps identify cell populations involved in active signaling processes within tissues and cellular systems.

In addition to its role in immune cells, CD38-mediated calcium signaling contributes to broader biological processes, including regulation of cellular interactions and response to environmental stimuli. This expands the relevance of CD38 detection beyond simple cell identification to include functional analysis of signaling pathways.

The ability to detect CD38 in signaling-active populations provides valuable information about both cellular identity and functional state, enabling detailed investigation of how signaling pathways regulate immune responses and cellular behavior. This is particularly important in studies examining activation-dependent processes and communication between

immune cells.

CD38 Antibody rCD38/8045 for calcium signaling research therefore provides a powerful tool for studying intracellular signaling pathways and calcium-dependent processes, supporting analysis of immune activation, signal transduction, and cellular communication across a wide range of 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 / Calcium Signaling Pathway 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 calcium signaling antibody, CD38 signal transduction antibody, CD38 ADPRC1 signaling enzyme antibody, CD38 immune signaling marker antibody, CD38 cyclic ADP ribose antibody