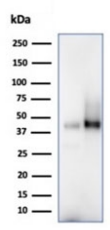
CD38 Antibody / Microarray Specificity Validated Antibody [clone CD38/4328] (V9174)

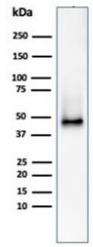
Catalog No.	Formulation	Size
V9174-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9174-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9174SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

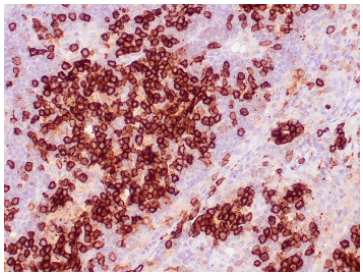
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CD38/4328
Purity	Protein A/G affinity
UniProt	P28907
Localization	Cell surface and cytoplasm
Applications	Flow cytometry: 1-2ug/million cells Immunofluorescence: 1-2ug/million cells Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD38 Antibody / Microarray Specificity Validated Antibody is available for research use only.



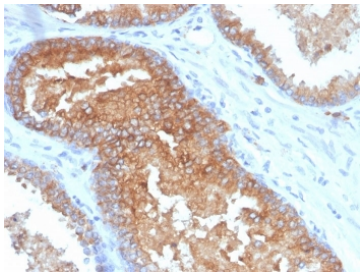
CD38 Antibody human spleen and Raji lysate WB. Western blot analysis of CD38 / plasma cell marker expression in human spleen tissue and Raji cell lysate using CD38 antibody clone CD38/4328. Lane 1: human spleen lysate, Lane 2: human Raji cell lysate. A band is detected at approximately 40-45 kDa, consistent with the predicted molecular weight of CD38, with higher apparent molecular weight reflecting glycosylation of this cell surface protein and aligning with expression in immune cell-rich tissues and B cell-derived lines.



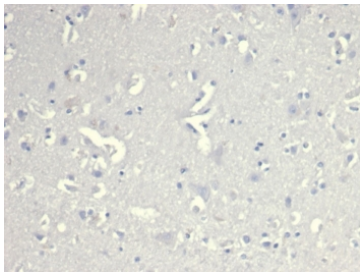
Western blot testing of human Raji cell lysate using CD38 antibody (clone CD38/4328). Expected molecular weight: 34-46 kDa depending on glycosylation level.



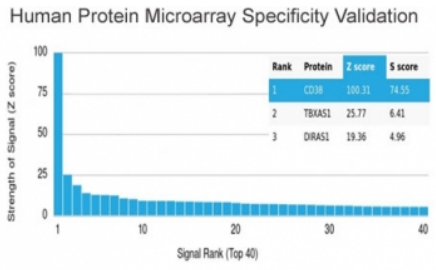
IHC staining of FFPE human tonsil tissue with CD38 antibody (clone CD38/4328) at 2ug/ml in PBS for 30min RT. Strong cytoplasmic and membranous staining is observed. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



CD38 Antibody human prostate carcinoma tissue IHC. Immunohistochemistry analysis of CD38 / plasma cell marker expression in FFPE human prostate carcinoma tissue using CD38 antibody clone CD38/4328 at 2 ug/ml. Strong membranous and cytoplasmic HRP-DAB brown staining is observed in tumor-associated epithelial structures, with positive signal highlighting infiltrating immune cells within the tumor microenvironment. The staining pattern demonstrates prominent immune cell presence within malignant tissue, while surrounding stromal elements show lower background signal. 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.



Negative control: IHC staining of FFPE human cerebral cortex tissue with CD38 antibody (clone CD38/4328) at 2ug/ml in PBS for 30min RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



CD38 Antibody microarray validation. Analysis of HuProt(TM) human protein microarray containing more than 19,000 full-length human proteins using CD38 Antibody clone CD38/4328 demonstrates highly selective binding to CD38 as the top-ranked target. Z-score of 100.31 indicates strong signal intensity, while the S-score of 74.55 reflects a substantial separation from the next highest-ranking proteins, supporting high specificity. Z-score represents signal strength in standard deviations above the array mean, and S-score reflects the difference between consecutive ranked targets, indicating relative target specificity.

Description

CD38 (CD38) is a type II transmembrane glycoprotein and ectoenzyme of the ADP-ribosyl cyclase family that regulates NAD metabolism, cyclic ADP-ribose generation, and calcium-dependent signaling pathways. It is widely expressed on plasma cells, activated T and B lymphocytes, natural killer cells, and additional immune cell subsets, where it contributes to immune activation, cellular differentiation, adhesion, and signal transduction. Because CD38 is studied in complex immune cell systems containing many co-expressed surface proteins, antibody specificity is especially important for accurate interpretation of staining and detection results.

CD38 Antibody / Microarray Specificity Validated Antibody (clone CD38/4328) is designed to provide selective detection of CD38 with validation supported by human protein microarray screening. CD38 antibody, also known as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is commonly used in studies of plasma cell biology, lymphocyte activation, hematologic malignancy, and tumor immune infiltration, all of which benefit from high-confidence target recognition. For a marker with broad use across immunology and oncology, microarray-based specificity confirmation provides an important layer of experimental confidence.

In the human protein microarray assay, clone CD38/4328 showed CD38 as the top-ranked target by a wide margin, with a Z score of 100.31 and an S score of 74.55. The next-ranked proteins, TBXA51 and DRIA51, showed much lower values, with Z scores of 25.77 and 19.36 and S scores of 6.41 and 4.96, respectively. This large separation between the intended target and lower-ranked off-target candidates demonstrates a strong specificity profile and supports selective recognition of CD38 across a high-content protein screening platform. The magnitude of this score gap is particularly useful for differentiating this clone from antibodies supported only by standard application data without broad proteome-level specificity assessment.

Microarray specificity validation is valuable because it evaluates antibody binding against a large panel of full-length human proteins under standardized conditions, allowing quantitative comparison of target recognition against possible off-target interactions. In practical terms, this means clone CD38/4328 has been challenged in a much broader specificity setting than conventional single-sample assays alone can provide. For researchers working with immune tissues, lymphoid malignancies, or mixed-cell populations, this type of validation can reduce uncertainty when interpreting positive signal in biologically complex samples.

The specificity profile of clone CD38/4328 is particularly relevant for CD38 because immune cells frequently co-express multiple surface antigens, adhesion molecules, and signaling proteins with overlapping tissue distributions. In these environments, antibodies with weak selectivity can generate misleading signal attribution. A microarray-validated CD38 antibody helps address that concern by demonstrating that the dominant binding event is directed toward CD38 itself rather than unrelated proteins present in immune-rich specimens.

As a mouse monoclonal antibody, clone CD38/4328 provides consistent epitope recognition and reproducible binding characteristics across experiments. The monoclonal format supports stable lot-to-lot performance and clear target definition, while the added microarray validation strengthens confidence that the recognized epitope is associated with the intended antigen. This is especially useful in studies where reproducibility and analytical rigor are priorities, including biomarker characterization, assay development, and comparative expression analysis.

CD38 Antibody clone CD38/4328 is therefore well positioned for research settings where antibody specificity is a primary consideration. Its strong human protein microarray performance, with CD38 identified as the clear top target and a substantial score separation from lower-ranked proteins, supports its use as a high-confidence reagent for CD38 detection in immune and cancer research applications.

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 / Microarray Specificity Validated Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human CD38 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 microarray validated antibody, CD38 specificity validated antibody, CD38 ADPRC1 antibody, CD38 plasma cell marker antibody, CD38 monoclonal antibody

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