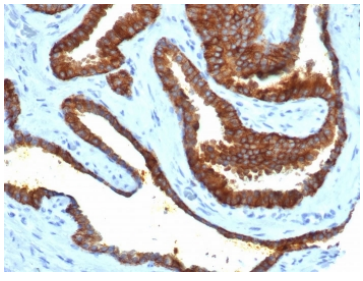
# CD38 Antibody / Activated Lymphocyte Marker Antibody [clone CD38/6448R] (V9180)

| Catalog No. | Formulation | Size |
|---|---|---|
| V9180-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V9180-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V9180SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

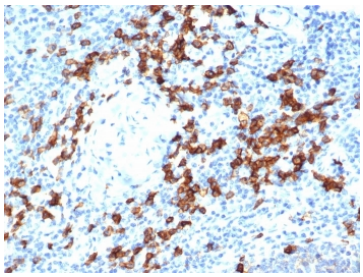
Recombinant RABBIT MONOCLONAL

**Bulk quote request**

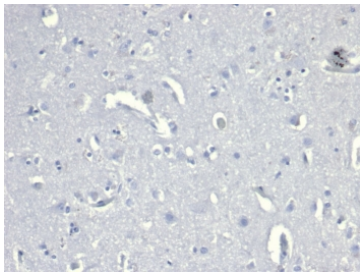
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | CD38/6448R |
| **Purity** | Protein A/G affinity |
| **UniProt** | P28907 |
| **Localization** | Cell Surface, Cytoplasm |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 1-2ug/ml |
| **Limitations** | This CD38 Antibody / Activated Lymphocyte Marker Antibody is available for research use only. |



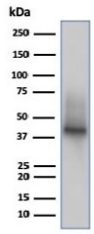
CD38 Antibody human prostate adenocarcinoma tissue IHC. Immunohistochemistry analysis of CD38 expression in FFPE human prostate adenocarcinoma tissue using CD38 antibody clone CD38/6448R at 2 ug/ml. Strong membranous and cytoplasmic HRP-DAB brown staining highlights tumor-infiltrating lymphocytes within stromal and peri-glandular regions, consistent with an activated lymphocyte marker pattern, with positive immune cells interspersed among malignant epithelial structures. The staining demonstrates immune activation within the tumor microenvironment, while tumor cells show variable staining. 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.



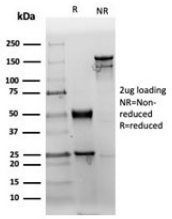
IHC staining of FFPE human tonsil tissue with recombinant CD38 antibody (clone CD38/6448R) at 2ug/ml in PBS for 30min RT. Strong cytoplasmic and membranous staining is observed. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Negative control: IHC staining of FFPE human brain tissue with recombinant CD38 antibody (clone CD38/6448R) 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.




Western blot testing of human Raji cell lysate using recombinant CD38 antibody (clone CD38/6448R). Expected molecular weight: 34-46 kDa depending on glycosylation level.




SDS-PAGE analysis of purified, BSA-free recombinant CD38 antibody (clone CD38/6448R) as confirmation of integrity and purity.

## Description

CD38 (CD38) is a multifunctional type II transmembrane glycoprotein and ectoenzyme that regulates NAD metabolism and calcium signaling, playing a central role in immune activation and intracellular signaling pathways. It is expressed across multiple immune cell types, including activated T cells, B cells, natural killer cells, and plasma cells, where its expression level is closely linked to cellular activation status and functional state. This dynamic regulation makes CD38 a valuable marker for identifying activated lymphocyte populations in diverse biological systems.

CD38 Antibody / Activated Lymphocyte Marker Antibody is uniquely positioned for detection of activation-dependent CD38 expression, enabling analysis of immune cell activation states within complex cellular and tissue environments. CD38 antibody, also referred to as cyclic ADP-ribose hydrolase antibody or ADPRC1 antibody, is widely used to characterize functional immune responses and to distinguish activated cells from naÃƒÂ¯ve or resting counterparts.

In lymphocyte populations, CD38 expression is upregulated following activation, resulting in increased surface density that can be readily detected. Activated T cells and B cells typically exhibit intermediate to high CD38 expression, forming distinct populations relative to CD38-low or negative resting cells. This expression gradient allows CD38 to serve as both a qualitative and quantitative marker of immune activation, supporting detailed analysis of immune response dynamics.

CD38 is frequently used in studies of immune stimulation, inflammation, and immune-mediated disease, where identification of activated lymphocytes provides insight into ongoing biological processes. Its expression can reflect responses to antigen exposure, cytokine signaling, or disease-associated activation, making it a useful indicator of immune system engagement.

In addition to its role as a surface marker, CD38 contributes directly to signaling pathways that regulate immune cell activation. Through its enzymatic activity, CD38 generates cyclic ADP-ribose, which participates in calcium mobilization and intracellular signaling cascades. These processes are closely linked to lymphocyte activation, proliferation, and effector function, reinforcing the association between CD38 expression and immune activity.

CD38 is often analyzed in conjunction with other activation and lineage markers to refine identification of specific immune cell subsets. Its integration into multiparametric analysis supports detailed characterization of immune populations and their functional states within both normal and disease contexts.

The ability to detect CD38 expression as a marker of activation makes it particularly valuable in studies examining immune response kinetics, cellular differentiation, and functional immune status. Its dynamic expression profile allows researchers to track changes in immune cell populations over time or in response to experimental conditions.

CD38 Antibody CD38/6448R for activated lymphocyte detection therefore provides a powerful tool for identifying and characterizing immune activation states, supporting research into immune regulation, inflammatory processes, and disease-associated immune responses.

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 / Activated Lymphocyte Marker Antibody should be determined by the researcher.

## Immunogen

A portion of amino acids 200-300 of human CD38 protein was used as the immunogen for the recombinant CD38 antibody.

## Storage

Aliquot the recombinant CD38 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

## Alternate Names

CD38 activated lymphocyte antibody, CD38 immune activation marker antibody, CD38 T cell activation antibody, CD38 B cell activation antibody


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