## CD38 Recombinant Antibody [PD01-49] - Mouse IgG1 (Chimeric) - BSA and Azide free

# HA610369

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| **Product Type:** | Recombinant Chimeric Antibody, primary antibodies |
| **Species reactivity:** | Human |
| **Applications:** | WB, IHC-P, FC |
| **Molecular Wt:** | Predicted band size: 34 kDa |
| **Clone number:** | PD01-49 |

**Description:** CD38 is a type II integral membrane glycoprotein which is present on early B and T cell lineages and activated B and T cells but is absent from most mature resting peripheral lymphocytes. CD38 is also found on thymocytes, pre-B cells, germinal center B cells, mitogen-activated T cells, monocytes and Ig-secreting plasma cells. CD38 acts as a NAD glycohydrolase in T lymphocytes. On hematopoietic cells CD38 induces activation, proliferation, and differentiation of mature T and B cells and mediates apoptosis of myeloid and lymphoid progenitor cells. In addition to acting as a signaling receptor, CD38 is also an enzyme capable of producing several calcium-mobilizing metabolites, including cyclic adenosine diphosphate ribose (cADPR). CD38 also plays a role in maintaining survival of an invariant NK T (iNKT) cell subset that preferentially contributes to the maintenance of immunological tolerance.

**Immunogen:** Synthetic peptide within human CD38 aa 250-300.

**Positive control:** THP-1 cell lysate, Raji cell lysate, human spleen tissue, human tonsil tissue, Raji.

**Subcellular location:** Membrane.

**Database links:** SwissProt: P28907 Human

**Recommended Dilutions:**

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| **WB** | 1:2,000-1:5,000 |
| **IHC-P** | 1:30,000 |
| **FC** | 1:1,000 |

**Storage Buffer:** PBS (pH7.4).

**Storage Instruction:** Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

## Images

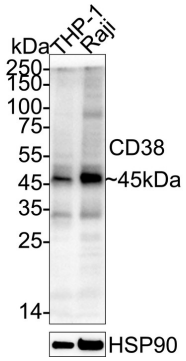


**Fig1:** Western blot analysis of CD38 on different lysates with Mouse anti-CD38 antibody (HA610369) at 1/5,000 dilution.

Lane 1: THP-1 cell lysate
Lane 2: Raji cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 34 kDa
Observed band size: 45 kDa

Exposure time: 3 minutes; ECL: K1802;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA610369) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

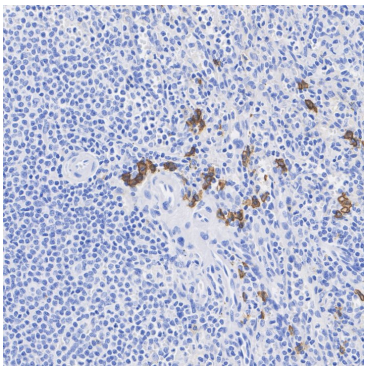

**Fig2:** Immunohistochemical analysis of paraffin-embedded human spleen tissue with Mouse anti-CD38 antibody (HA610369) at 1/30,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA610369) at 1/30,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

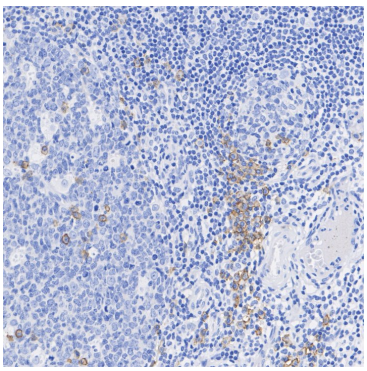

**Fig3:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Mouse anti-CD38 antibody (HA610369) at 1/30,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA610369) at 1/30,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

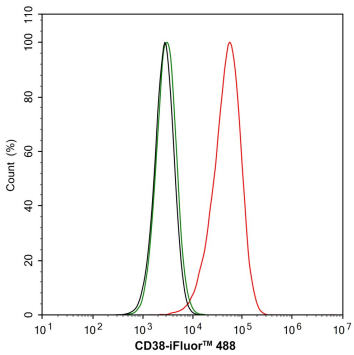


**Fig4:** Flow cytometric analysis of Raji cells labeling CD38.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA610369, 1/1,000) (red) compared with Mouse IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Yang Q et al. NADase CD38 is a key determinant of ovarian aging. Nat Aging. 2024 Jan
2. Yu S et al. CD38-Targeting Peptide Vaccine Ameliorates Aging-Associated Phenotypes in Mice. Aging Cell. 2025 Sep