# Anti-MUM1 Antibody [A7D1]

## HA601030

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| **Product Type:** | Mouse monoclonal IgG1, primary antibodies |
| **Species reactivity:** | Human |
| **Applications:** | IHC-P, WB |
| **Molecular Wt:** | Predicted band size: 52 kDa |
| **Clone number:** | A7D1 |

**Description:** MUM1 belongs to the IRF gene family containing at least 10 widely expressed genes with similar DNA binding motif all involved in regulation of cell growth, transformation and induction of apoptosis as well as development of T-cell immune response. MUM1 plays an important role in the regulation of gene expression in response to interferon and other cytokines. MUM1 is a gene primarily identified in Multiple Myeloma cell line where it was localized in region of chromosomal translocations t(6;14)(p25;q32) placing this gene in proximity of IgH enhancer locus. Expression is also important for the differentiation of monocytes along macrophage and dendritic cell pathways. The expression of MUM1 protein appears at the later stages of B-cell differentiation after the expression of CD10 and Bcl-6. B-lymphocytes in light zone of germinal centers (late stage of germinal center differentiation) and post-germinal lymphocytes are generally positive. The expression of MUM1 and Bcl-6 in normal germinal center B cells appears to be mutually exclusive. MUM1 is constantly found at all stages of differentiation of plasma cells. Nuclear expression is present also in a subpopulation of activated T- lymphocytes. MUM1 protein is furthermore expressed in normal and neoplastic melanocytes but not found in other cell types. Some oncogenic viruses (HTLV-I and EBV), activate the NF-?B pathway and consequently elevate MUM1/IRF4 expression.

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| **Immunogen:** | Synthetic peptide within human MUM1 aa 402-451/451. |
| **Positive control:** | Ramos cell lysate, human colon tissue, human lymph nodes tissue. |
| **Subcellular location:** | Nucleus. |
| **Database links:** | SwissProt: Q15306 Human |
| **Recommended Dilutions:** | |
| **IHC-P** | 1:1,500-1:2,000 |
| **WB** | 1:2,000 |
| **Storage Buffer:** | PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide. |
| **Storage Instruction:** | Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles. |
| **Purity:** | Protein G affinity purified. |

## Images

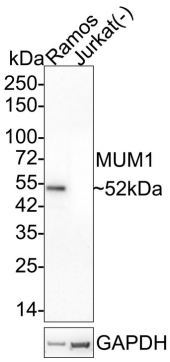


**Fig1:** Western blot analysis of MUM1 on different lysates with Mouse anti-MUM1 antibody (HA601030) at 1/2,000 dilution.

Lane 1: Ramos cell lysate
Lane 2: Jurkat cell lysate (negative)

Lysates/proteins at 30 µg/Lane.

Predicted band size: 52 kDa
Observed band size: 52 kDa

Exposure time: 1 minute 22 seconds;

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 (HA601030) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

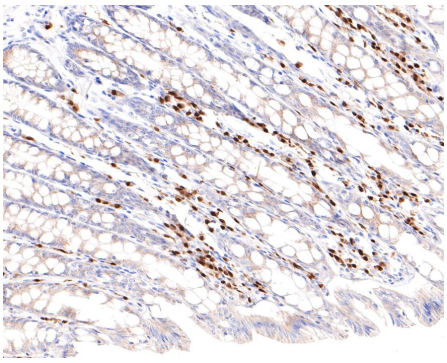

**Fig2:** Immunohistochemical analysis of paraffin-embedded human colon tissue with Mouse anti-MUM1 antibody (HA601030) at 1/1,500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA601030) at 1/1,500 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.

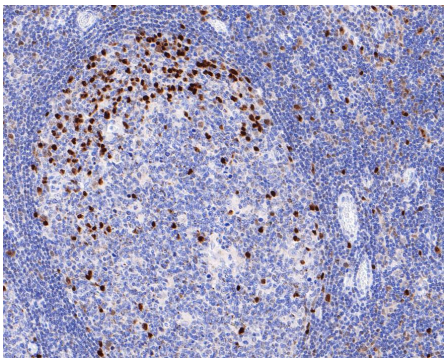

**Fig3:** Immunohistochemical analysis of paraffin-embedded human lymph nodes tissue with Mouse anti-MUM1 antibody (HA601030) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA601030) at 1/2,000 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.

## Background References

1. Alvisi G. et. al. IRF4 instructs effector Treg differentiation and immune suppression in human cancer. J Clin Invest. 2020 Jun
2. Al Mamun A. et. al. Microglial IRF5-IRF4 regulatory axis regulates neuroinflammation after cerebral ischemia and impacts stroke outcomes. Proc Natl Acad Sci U S A. 2020 Jan