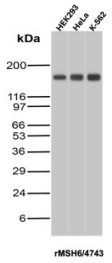
MSH6 Antibody for Western Blot / Recombinant MSH6 Antibody [clone rMSH6/4743] (V8634)

Catalog No.	Formulation	Size
V8634-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8634-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8634SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

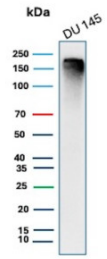
Recombinant MOUSE MONOCLONAL

Bulk quote request

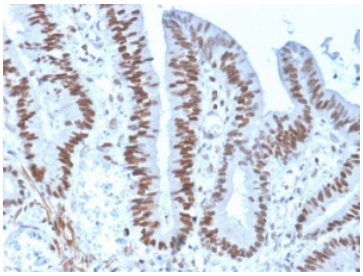
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	rMSH6/4743
Purity	Protein G affinity chromatography
UniProt	P52701
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT Western blot: 2-4ug/ml
Limitations	This MSH6 Antibody for Western Blot is available for research use only.



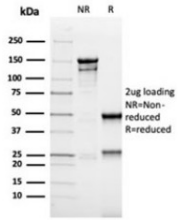
MSH6 Antibody for Western Blot rMSH6/4743 in Human Cancer Cell Lines. Western blot testing of MSH6 Antibody for Western Blot / Recombinant MSH6 Antibody, clone rMSH6/4743, in human HEK293, HeLa cervical cancer and K-562 leukemia cell lysates. A prominent band is detected at approximately 160 kDa across the tested samples, consistent with the predicted molecular weight of MSH6. This MSH6 Antibody for Western Blot demonstrates detection of the DNA mismatch repair protein across multiple human cell lysates.



MSH6 Antibody for Western Blot rMSH6/4743 in Human DU145 Prostate Cancer Cells. Western blot testing of MSH6 Antibody for Western Blot / Recombinant MSH6 Antibody, clone rMSH6/4743, in human DU145 prostate cancer cell lysate. A prominent high-molecular-weight band is detected at approximately 160 kDa, consistent with the predicted molecular weight of MSH6. This MSH6 Antibody for Western Blot demonstrates detection of the DNA mismatch repair protein in human prostate cancer cells.



MSH6 Antibody rMSH6/4743 in Human Colon Carcinoma IHC. Immunohistochemistry testing of MSH6 Antibody, clone rMSH6/4743, in FFPE human colon carcinoma tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 min followed by cooling prior to staining. Nuclear staining is observed in the carcinoma tissue, consistent with the established nuclear localization of MSH6.



MSH6 Antibody rMSH6/4743 Purity Analysis by SDS-PAGE. Electrophoretic analysis of purified, BSA-free MSH6 Antibody, clone rMSH6/4743, to evaluate antibody purity and integrity. The observed antibody protein pattern supports the purity and integrity of the recombinant monoclonal antibody preparation.

Description

MSH6 Antibody for Western Blot / Recombinant MSH6 Antibody recognizes MSH6, a nuclear DNA mismatch repair protein responsible for identifying errors generated during DNA replication. MSH6 associates with MSH2 to form the MutSalpha heterodimer, which recognizes base-base mismatches and small insertion/deletion loops. Detection of these errors initiates the mismatch repair process, helping preserve genomic stability and limit the accumulation of mutations.

MSH6, historically known as GTBP or G/T mismatch-binding protein, contains domains involved in DNA recognition, mismatch binding and ATP-dependent signaling. Following recognition of incorrectly paired DNA, the MSH2-MSH6 complex recruits additional mismatch repair factors that coordinate removal of the error-containing strand and accurate DNA resynthesis. MSH6 therefore plays an important role in replication fidelity, mutation suppression and maintenance of microsatellite stability.

Loss of functional MSH6 can result in mismatch repair deficiency and microsatellite instability. Germline pathogenic variants in MSH6 are associated with Lynch syndrome, historically called hereditary nonpolyposis colorectal cancer, and increased susceptibility to colorectal, endometrial and other malignancies. MSH6 is consequently studied alongside MSH2, MLH1 and PMS2 in research involving DNA repair, genomic instability and cancer biology.

Clone rMSH6/4743 is a recombinant mouse monoclonal antibody generated against amino acids 374-540 of human MSH6 and purified by Protein G affinity chromatography. NSJ Bioreagents provides this MSH6 Antibody for Western Blot for research into MSH6 expression, mismatch repair and genomic stability. A Recombinant MSH6 Antibody provides a defined monoclonal reagent for investigating this important component of the DNA mismatch repair pathway.

For a protein microarray-validated reagent and additional information on mismatch repair and genomic stability, visit our MSH6 Antibody / DNA Mismatch Repair Protein Antibody page.

Application Notes

Optimal dilution of the MSH6 Antibody for Western Blot should be determined by the researcher.

Immunogen

A portion of amino acids 374-540 from the human protein was used as the immunogen for the recombinant MSH6 antibody.

Storage

Store the recombinant MSH6 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

MSH6 antibody, recombinant MSH6 antibody, DNA mismatch repair protein Msh6 antibody, GTBP antibody, p160 antibody

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