Technical Data Sheet

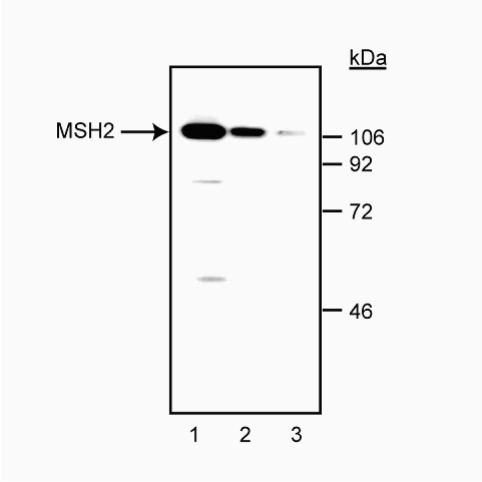
Purified Mouse Anti-Human MSH-2

Product Information

Material Number:	**556349**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G219-1129
Immunogen:	Recombinant Human MSH2 Protein
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	102 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The repair of mismatched DNA is essential to maintaining the integrity of genetic information over time. In bacteria the DNA repair process is accomplished by the MutL, MutH, and MutS proteins. The MutS protein initially recognizes and binds to mismatched DNA. Following this, MutH, an endonuclease, and MutL form a complex with MutS and carry out an excision repair mechanism. When bacteria are deficient in one of these enzymes a mutator phenotype arises characterized by genetic instability. The important role played by DNA repair enzymes is emphasized by the fact that they are highly conserved from bacteria to yeast to mammals. In yeast the proteins are called MutS homolog 2 (MSH2), MutL homolog (MLH1), and PMS1 which is also a homolog of MutL. MSH2 is involved in the initial recognition of mismatched nucleotides during the replication mismatch repair process. It is thought that after MSH2 binds to a mismatched DNA duplex it is joined by a heterodimer of MLH1 and PMS1 which together help facilitate the later steps in mismatch repair. The human homologs of DNA mismatch repair enzymes MLH1, PMS2, and MSH2 have recently been cloned. G219-1129 recognizes human MSH-2. A recombinant full-length human MSH2 protein was used as immunogen.



Western blot analysis of MSH-2. *Lysate from A-431 human epidermal carcinoma cells were probed with anti-MSH2 (clone G219-1129) with concentrations between 1 µg/ml to 0.04 µg/ml (lanes 1-3). MSH-2 is identified at ~102 kD.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Immunohistochemistry-paraffin	Tested During Development
Immunohistochemistry-frozen	Tested During Development

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Recommended Assay Procedure:
For IHC, intestine is suggested as a positive control. Staining is typically seen in the crypts of Lieberkuhn, similar to that described by others. Staining is primarily nuclear, but may also be observed in the cytoplasm.

Suggested Companion Products

Catalog Number	Name	Size	Clone
611447	A431 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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