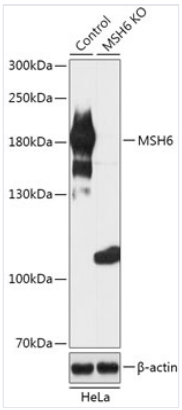
MSH6 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MSH6, Polyclonal Antibody
Full Product Name	[KO Validated] MSH6 Rabbit pAb
Product Gene Name	anti-MSH6 antibody
Product Synonym Names	MSH6; GTBP; GTMBP; HNPCC5; HSAP; p160
Immunogen Sequence	EASLQNQIVW KIKETVKEFY GENIKESPDY ERIINLRHFK RILSLLEGQK IAFGGETDEA TRYIAPTVLT D
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Monkey
Form/Format	PBS with 0.01% thiomersal, 50% glycerol, pH7.3.
Purity/Purification	Affinity purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	485
OMIM	phenotype 609523
3D Structure	ModBase 3D Structure for P51648
Positive Samples	HeLa
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 1-290 of human MSH6 (NP_000170.1).
Cellular Location	Chromosome, Nucleus
Product Categories/Family for anti-MSH6 antibody	Epigenetics & Nuclear Signaling; DNA Damage & Repair; Cell Biology & Developmental Biology; Apoptosis; Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MSH6 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)
Application Notes for anti-MSH6 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF/ICC: 1:20-1:100
Related Product Information for anti-MSH6 antibody	This gene encodes a member of the DNA mismatch repair MutS family. In E. coli, the MutS protein helps in the recognition of mismatched nucleotides prior to their repair. A highly conserved region of approximately 150 aa, called the Walker-A adenine nucleotide binding motif, exists in MutS homologs. The encoded protein heterodimerizes with MSH2 to form a mismatch recognition complex that functions as a bidirectional molecular switch that exchanges ADP and ATP as DNA mismatches are bound and dissociated. Mutations in this gene may be associated with hereditary nonpolyposis colon cancer, colorectal cancer, and endometrial cancer. Transcripts variants encoding different isoforms have been described.
Other Notes	Small volumes of anti-MSH6 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for MSH6 purchase	MBS9144621 is an antibody targeting MSH6. Also known as [KO Validated] MSH6 Rabbit pAb. Reactive in Human, Mouse, Monkey. Host: Rabbit.



Western Blot (WB) of anti-MSH6 antibody
Western blot analysis of extracts from normal (control) and MSH6 knockout (KO) HeLa cells, using MSH6 antibody at 1:500 dilution.Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (MBS128200) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% nonfat dry milk in TBST.Detection: ECL Basic Kit.Exposure time: 1min.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MSH6. It may not necessarily be applicable to this product.

NCBI GI #	1706379
NCBI GeneID	224
NCBI Accession #	P51648.1
UniProt Primary Accession #	P51648
UniProt Secondary Accession #	Q6I9T3; Q93011; Q96J37
UniProt Related Accession #	P51648
NCBI Official Full Name	Fatty aldehyde dehydrogenase
NCBI Official Synonym Full Names	aldehyde dehydrogenase 3 family, member A2
NCBI Official Symbol	ALDH3A2
NCBI Official Synonym Symbols	SLS; FALDH; ALDH10
UniProt Protein Name	Fatty aldehyde dehydrogenase
UniProt Synonym Protein Names	Aldehyde dehydrogenase 10; Aldehyde dehydrogenase family 3 member A2; Microsomal aldehyde dehydrogenase
Protein Family	DNA mismatch repair protein
UniProt Gene Name	ALDH3A2
UniProt Synonym Gene Names	ALDH10; FALDH
UniProt Entry Name	AL3A2_HUMAN
NCBI Protein Information	fatty aldehyde dehydrogenase; aldehyde dehydrogenase 10; microsomal aldehyde dehydrogenase; aldehyde dehydrogenase family 3 member A2
NCBI Summary for MSH6	Aldehyde dehydrogenase isozymes are thought to play a major role in the detoxification of aldehydes generated by alcohol metabolism and lipid peroxidation. This gene product catalyzes the oxidation of long-chain aliphatic aldehydes to fatty acid. Mutations in the gene cause Sjogren-Larsson syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for MSH6	ALDH3A2: Catalyzes the oxidation of long-chain aliphatic aldehydes to fatty acids. Active on a variety of saturated and unsaturated aliphatic aldehydes between 6 and 24 carbons in length. Responsible for conversion of the sphingosine 1-phosphate (S1P) degradation product hexadecenal to hexadecenoic acid. Defects in ALDH3A2 are the cause of Sjoegren-Larsson syndrome (SLS). SLS is an autosomal recessive neurocutaneous disorder characterized by a combination of severe mental retardation, spastic di- or tetraplegia and congenital ichthyosis (increased keratinization). Ichthyosis is usually evident at birth, neurologic symptoms appear in the first or second year of life. Most patients have an IQ of less than 60. Additional clinical features include glistening white spots on the retina, seizures, short stature and speech defects. Belongs to the aldehyde dehydrogenase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Carbohydrate Metabolism - propanoate; Amino Acid Metabolism - histidine; Membrane protein, integral; Oxidoreductase; EC 1.2.1.3; Amino Acid Metabolism - lysine degradation; Carbohydrate Metabolism - ascorbate and aldarate; Carbohydrate Metabolism - pyruvate; Carbohydrate Metabolism - butanoate; Other Amino Acids Metabolism - beta-alanine; Lipid Metabolism - fatty acid; Amino Acid Metabolism - arginine and proline; Secondary Metabolites Metabolism - limonene and pinene degradation; Lipid Metabolism - glycerolipid; Carbohydrate Metabolism - glycolysis and gluconeogenesis; Amino Acid Metabolism - tryptophan; Amino Acid Metabolism - valine, leucine and isoleucine degradation; Mitochondrial Chromosomal Location of Human Ortholog: 17p11.2 Cellular Component: endoplasmic reticulum membrane; intracellular membrane-bound organelle; mitochondrial inner membrane; integral to membrane; peroxisome Molecular Function: long-chain-alcohol oxidase activity; aldehyde dehydrogenase (NAD) activity; aldehyde dehydrogenase [NAD(P)+] activity; 3-chloroallyl aldehyde dehydrogenase activity; long-chain-aldehyde dehydrogenase activity Biological Process: phytol metabolic process; epidermis development; central nervous system development; aldehyde metabolic process; sesquiterpenoid metabolic process; peripheral nervous system development Disease: Sjogren-larsson Syndrome
Research Articles on MSH6	**1.** variation in the neurologic phenotype of Sjogren-Larsson syndrome is not strictly determined by the ALDH3A2 mutation or a biochemical defect, but by unidentified epigenetic/environmental factors, gene modifiers, or other mechanisms.
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