Human MSH2 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6780G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MSH2 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human MSH2 Ala2-Asp140 Accession # P43246
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MSH2 (MutS Homolog 2) is a 100-106 kDa member of the mutS family of DNA mismatch repair molecules. It is a DNA binding protein that is expressed in rapidly proliferating cells, and acts in concert with multiple subunits. MSH2 forms a heterodimer with MSH6, forming MutSα. This dimer recognizes and repairs both nucleotide misparings and one or two aberrant nucleotide insertions/deletions. MSH2 also heterodimerizes with MSH3, forming MutSβ. This complex acts on DNA double-stranded breaks, and repairs large nucleotide insertions/deletions (<15 bases). MutSα is associated with BLM:p53:RAD51 complexes, while MSH2β is associated with SLX4/BTBD12 complexes. Human MSH2 is 934 amino acids (aa) in length. It contains three MutS domains (aa 18-132; 158-284; 297-612) plus an ABC transporter signature motif that may hydrolyze ATP (aa 633-852). There are multiple splice variants. One shows a premature truncation after His429, while others contain a 46 aa substitution for aa 879-934, a 29 aa substitution for aa 462-934, a 28 aa substitution for aa 783-934, a 3 aa substitution for aa 532-934, a 5 aa substitution for aa 482-934 and a 31 aa substitution for aa 379-934. Over aa 1-140, human MSH2 shares 94% aa identity with mouse MSH2.

PRODUCT SPECIFIC NOTICES

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