

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MSH2 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -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 mispairings 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

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.