


Product datasheet

Anti-PMS2 antibody ab94534

画像数 1

製品の概要

製品名	Anti-PMS2 antibody
製品の詳細	Rabbit polyclonal to PMS2
由来種	Rabbit
アプリケーション	適用あり: WB
種交差性	交差種: Human 交差が予測される動物種: Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Cat, Dog, Saccharomyces cerevisiae 
免疫原	Synthetic peptide corresponding to a region within internal sequence amino acids 612-661 (NKKVVPLDFS MSSSLAKRIKQ LHHEAQQSEG EQNYRKFRK ICPGENQAAE) of Human PMS2 (NP_000526). Run BLAST with ExPASy Run BLAST with NCBI
ポジティブ・コントロール	HepG2 cell lysate

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
バッファー	Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab94534** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 96 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

ターゲット情報

機能

Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MLH1 to form MutL alpha. DNA repair is initiated by MutS alpha (MSH2-MSH6) or MutS beta (MSH2-MSH6) binding to a dsDNA mismatch, then MutL alpha is recruited to the heteroduplex. Assembly of the MutL-MutS-heteroduplex ternary complex in presence of RFC and PCNA is sufficient to activate endonuclease activity of PMS2. It introduces single-strand breaks near the mismatch and thus generates new entry points for the exonuclease EXO1 to degrade the strand containing the mismatch. DNA methylation would prevent cleavage and therefore assure that only the newly mutated DNA strand is going to be corrected. MutL alpha (MLH1-PMS2) interacts physically with the clamp loader subunits of DNA polymerase III, suggesting that it may play a role to recruit the DNA polymerase III to the site of the MMR. Also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages.

関連疾患

Defects in PMS2 are the cause of hereditary non-polyposis colorectal cancer type 4 (HNPCC4) [MIM:600259]. Mutations in more than one gene locus can be involved alone or in combination in the production of the HNPCC phenotype (also called Lynch syndrome). Most families with clinically recognized HNPCC have mutations in either MLH1 or MSH2 genes. HNPCC is an autosomal, dominantly inherited disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early onset colorectal carcinoma (CRC) and extra-colonic cancers of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world, and accounts for 15% of all colon cancers. Cancers in HNPCC originate within benign neoplastic polyps termed adenomas. Clinically, HNPCC is often divided into two subgroups. Type I: hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II: patients have an increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected.

Defects in PMS2 are a cause of mismatch repair cancer syndrome (MMRCS) [MIM:276300]; also known as Turcot syndrome or brain tumor-polyposis syndrome 1 (BTPS1). MMRCS is an autosomal dominant disorder characterized by malignant tumors of the brain associated with multiple colorectal adenomas. Skin features include sebaceous cysts, hyperpigmented and cafe au lait spots.

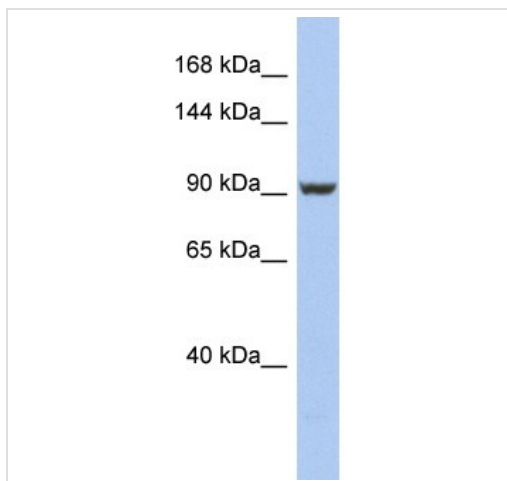
配列類似性

Belongs to the DNA mismatch repair mutL/hexB family.

細胞内局在

Nucleus.

画像



Western blot - Anti-PMS2 antibody (ab94534)

Anti-PMS2 antibody (ab94534) at 1 µg/ml (in 5% skim milk / PBS buffer) + HepG2 cell lysate at 10 µg

Secondary

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

Predicted band size: 96 kDa

Gel concentration: 6-18%

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