For Research Use Only

CoraLite® Plus 488-conjugated MLH1 Monoclonal antibody



Catalog Number: CL488-67350

Featured Product

Basic Information

Catalog Number: GenBank Accession Number:

CL488-67350 BC006850 GeneID (NCBI):

100ul , Concentration: 1000 $\mu g/ml$ by 4292 Nanodrop: **UNIPROT ID:**

P40692 Mouse Full Name:

Isotype: mutL homolog 1, colon cancer, IgG2a nonpolyposis type 2 (E. coli)

Immunogen Catalog Number: Calculated MW: AG27723 756 aa. 85 kDa Observed MW:

85-100 kDa, 40-45 kDa

Purification Method: Protein A purification

CloneNo.:

Excitation/Emission maxima

wavelengths: 493 nm / 522 nm

2F12C4

Applications

Tested Applications:

Species Specificity:

human, rat

Background Information

 $MLH1, also \ named\ as\ COCA2, belongs\ to\ the\ DNA\ mismatch\ repair\ mutL/hexB\ family.\ It\ heterodimerizes\ with\ PMS2$ to form MutL alpha which is a component of the post-replicative DNA mismatch repair system (MMR). 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. MLH1 also implicated in DNA damage signaling, a process which induces cell cycle arrest and can lead to apoptosis in case of major DNA damages. MLH1 heterodimerizes with MLH3 to form MutL gamma which plays a role in meiosis. (PMID: 16873062, PMID: 18206974) Defects in MLH1 are the cause of hereditary non-polyposis colorectal cancer type 2 (HNPCC2). Defects in MLH1 are a cause of mismatch repair cancer syndrome (MMRCS). Defects in MLH1 are a cause of Muir-Torre syndrome (MTS). Defects in MLH1 are a cause of susceptibility to endometrial cancer. Western blot analysis with an MLH1 antibody detected a 85-100 kDa band. Full-length human MLH1 is specifically cleaved into degradation products of 40-45 kDa by caspase-3 (PMID: 15087450, PMID: 19603033). This antibody is specific to MLH1.

Storage

Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

Aliquoting is unnecessary for -20°C storage

Selected Validation Data