

## **Certificate of Analysis**

Catalog Number	BP62859
Product Name	Anti-MLH1 antibody

## **Physical and Chemical Properties**

Molecular Weight	85 kDa
GenBank	BC006850
Uniprot	P40692
Concentration	620 μg/ml
Form	Liquid
Storage Instruction	10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA and 50% glycerol. Store at -20°C. Do Not Aliquot.
Chemical Structure OR Tested Image	250 - 150 - 100 - 75 - 37 - 25 - 15 - 10 -

## **Product Information**

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Description	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. 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. This antibody is specific to MLH1.
Tested Applications	WB: 1:1000; IF: 1:100-1:300; IHC:1:50-1:200
Species Reactivity	Human, Mouse, Rat
Host Species/Isotype	Rabbit/IgG

## **Analytical Data**

Quality Assurance	The biological and chemical parameters such as concentration, purity, application and specificity of the tested antibody comply with the above-mentioned criteria of the product.
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