

# Product Datasheet

## MLH1 Antibody (G168-728) [Alexa Fluor® 750] NBP3-08602AF750

Unit Size: 100 ul

Store at 4C in the dark.

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**NBP3-08602AF750**

MLH1 Antibody (G168-728) [Alexa Fluor® 750]

<b>Product Information</b>	
<b>Unit Size</b>	100 ul
<b>Concentration</b>	Please see the vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C in the dark.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	G168-728
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1 Kappa
<b>Conjugate</b>	Alexa Fluor 750
<b>Purity</b>	Protein A or G purified
<b>Buffer</b>	50mM Sodium Borate
<b>Product Description</b>	
<b>Host</b>	Mouse
<b>Gene ID</b>	4292
<b>Gene Symbol</b>	MLH1
<b>Species</b>	Human
<b>Specificity/Sensitivity</b>	This monoclonal antibody recognizes a protein of 83kDa, identified as MLH1. Defects in MLH1 are the cause of hereditary non-polyposis colorectal cancer type 2 (HNPCC2). Heterodimerizes with PMS2 to form MutL alpha, a component of the post-replicative DNA mismatch repair system (MMR). 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. Heterodimerizes with MLH3 to form MutL gamma, which plays a role in meiosis.
<b>Immunogen</b>	Recombinant full-length human MLH1 protein (Uniprot: P40692)



<b>Notes</b>	<p>Alexa Fluor (R) products are provided under an intellectual property license from Life Technologies Corporation. The purchase of this product conveys to the buyer the non-transferable right to use the purchased 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, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment; (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or <a href="mailto:outlicensing@lifetech.com">outlicensing@lifetech.com</a>. This conjugate is made on demand. Actual recovery may vary from the stated volume of this product. The volume will be greater than or equal to the unit size stated on the datasheet.</p>
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<b>Product Application Details</b>	
<b>Applications</b>	Immunohistochemistry-Paraffin
<b>Recommended Dilutions</b>	Immunohistochemistry-Paraffin
<b>Application Notes</b>	Optimal dilution of this antibody should be experimentally determined.



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### **Products Related to NBP3-08602AF750**

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IC002S	Mouse IgG1 Isotype Control (11711) [Alexa Fluor® 750]
H00004292-Q01-10ug	Recombinant Human MLH1 GST (N-Term) Protein
H00004292-P01-10ug	Recombinant Human MLH1 GST (N-Term) Protein
AF2535	MMR/CD206/Mannose Receptor Antibody [Unconjugated]

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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