

Product Datasheet

MLH1 Antibody (G168-728) [Alexa Fluor™ Plus 647] NBP3-08602AFP647

Unit Size: 0.1 ml

Store at 4C in the dark.

www.novusbio.com



technical@novusbio.com

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP3-08602AFP647

Updated 4/11/2026 v.20.1

Earn rewards for product
reviews and publications.

Submit a publication at www.novusbio.com/publications

Submit a review at www.novusbio.com/reviews/destination/NBP3-08602AFP647



NBP3-08602AFP647

MLH1 Antibody (G168-728) [Alexa Fluor™ Plus 647]

| Product Information | |
|--------------------------------|--|
| Unit Size | 0.1 ml |
| Concentration | Please see the vial label for concentration. If unlisted please contact technical services. |
| Storage | Store at 4C in the dark. |
| Clonality | Monoclonal |
| Clone | G168-728 |
| Preservative | 0.05% Sodium Azide |
| Isotype | IgG1 Kappa |
| Conjugate | Alexa Fluor Plus 647 |
| Purity | Protein A or G purified |
| Buffer | 50mM Sodium Borate |
| Product Description | |
| Host | Mouse |
| Gene ID | 4292 |
| Gene Symbol | MLH1 |
| Species | Human |
| Specificity/Sensitivity | 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. |
| Immunogen | Recombinant full-length human MLH1 protein (Uniprot: P40692) |

| | |
|--------------|--|
| Notes | <p>This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not (1) use this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; or (c) manufacturing or quality assurance or quality control, and/or (2) sell or transfer this product or its components for resale, whether or not 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, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com. 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> |
|--------------|--|

| Product Application Details | |
|------------------------------------|--|
| Applications | Immunohistochemistry-Paraffin |
| Recommended Dilutions | Immunohistochemistry-Paraffin |
| Application Notes | Optimal dilution of this antibody should be experimentally determined. |



Novus Biologicals USA

10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada

21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd

19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information

www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP3-08602AFP647

Earn gift cards/discounts by submitting a publication using this product:
www.novusbio.com/publications

