

# Product Datasheet

## MLH1 Antibody (MLH1/1324)

### NBP2-47656-0.1mg

Unit Size: 0.1 mg

Store at 4C.

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**NBP2-47656-0.1mg**

MLH1 Antibody (MLH1/1324)

Product Information	
Unit Size	0.1 mg
Concentration	0.2 mg/ml
Storage	Store at 4C.
Clonality	Monoclonal
Clone	MLH1/1324
Preservative	0.05% Sodium Azide
Isotype	IgG2b Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS with 0.05% BSA
Target Molecular Weight	85 kDa

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 human MLH1 protein (Uniprot: P40692)
Notes	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml.  Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C. Antibody is stable for 24 months. Non-hazardous.

Product Application Details	
Applications	ELISA
Recommended Dilutions	ELISA 2-4 ug/ml
Application Notes	ELISA: Use Ab at 2-4ug/ml for coating. Order Ab without BSA. Optimal dilution for a specific application should be 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](mailto: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](mailto: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](mailto:info.EMEA@bio-techne.com)

### **General Contact Information**

[www.novusbio.com](http://www.novusbio.com)

Technical Support: [nb-technical@bio-techne.com](mailto:nb-technical@bio-techne.com)

Orders: [nb-customerservice@bio-techne.com](mailto:nb-customerservice@bio-techne.com)

General: [novus@novusbio.com](mailto: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.

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