

MUTYH Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant MUTYH.

Catalog # AT2939a

Product Information

Application	WB, IP, E
Primary Accession	Q9UIF7
Other Accession	BC003178
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	4D10
Calculated MW	60069

Additional Information

Gene ID	4595
Other Names	A/G-specific adenine DNA glycosylase, 322-, MutY homolog, hMYH, MUTYH, MYH
Target/Specificity	MUTYH (AAH03178, 436 a.a. ~ 535 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IP~~N/A E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	MUTYH Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

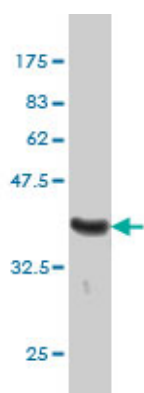
This gene encodes a DNA glycosylase involved in oxidative DNA damage repair. The enzyme excises adenine bases from the DNA backbone at sites where adenine is inappropriately paired with guanine, cytosine, or 8-oxo-7,8-dihydroguanine, a major oxidatively damaged DNA lesion. The protein is localized to the nucleus and mitochondria. Mutations in this gene result in heritable predisposition to colon and stomach cancer. Multiple transcript variants encoding different isoforms have been found for this gene.

References

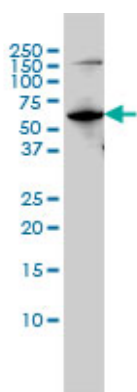
- 1.Impaired 8-Hydroxyguanine Repair Activity of MUTYH Variant p.Arg109Trp Found in a Japanese Patient

with Early-Onset Colorectal Cancer. Shinmura K, Goto M, Tao H, Kato H, Suzuki R, Nakamura S, Matsuda T, Yin G, Morita M, Kono S, Sugimura H. *Oxid Med Cell Longev*. 2014;2014:617351. doi: 10.1155/2014/617351. Epub 2014 Mar 23. 2. Human MutY homolog induces apoptosis in etoposide-treated HEK293 cells. Hahm SH, Chung JH, Agustina L, Han SH, Yoon IS, Park JH, Kang LW, Park JW, Na JJ, Han YS. *Oncol Lett*. 2012 Dec;4(6):1203-1208. Epub 2012 Sep 19. 3. Cancer-associated variants and a common polymorphism of MUTYH exhibit reduced repair of oxidative DNA damage using a GFP-based assay in mammalian cells. Raetz AG, Xie Y, Kundu S, Brinkmeyer MK, Chang C, David SS. *Carcinogenesis*. 2012 Sep 20. [Epub ahead of print] 4. Reduced expression of MUTYH with suppressive activity against mutations caused by 8-hydroxyguanine is a novel predictor of a poor prognosis in human gastric cancer. Shinmura K, Goto M, Suzuki M, Tao H, Yamada H, Igarashi H, Matsuura S, Maeda M, Konno H, Matsuda T, Sugimura H. *The Journal of Pathology* DOI: 10.1002 /path.29535. Effects of base excision repair proteins on mutagenesis by 8-oxo-7,8-dihydroguanine (8-hydroxyguanine) paired with cytosine and adenine. Suzuki T, Harashima H, Kamiya H. *DNA Repair (Amst)*. 2010 Feb 28. [Epub ahead of print] 6. Immunohistochemistry is not an accurate first step towards the molecular diagnosis of MUTYH-associated polyposis. van der Post RS, Kets CM, Ligtenberg MJ, van Krieken JH, Hoogerbrugge N. *Virchows Arch*. 2009 Jan;454(1):25-9. Epub 2008 Nov 25.

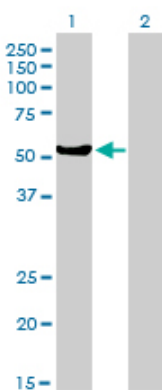
Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



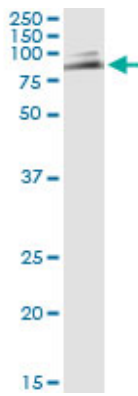
MUTYH monoclonal antibody (M01), clone 4D10 Western Blot analysis of MUTYH expression in HeLa S3 NE (Cat # AT2939a)



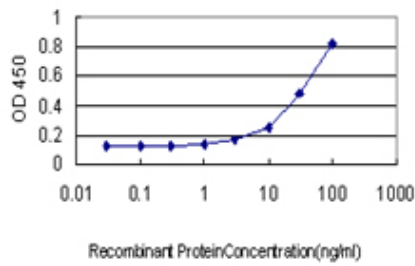
Western Blot analysis of MUTYH expression in transfected 293T cell line by MUTYH monoclonal antibody (M01), clone 4D10.

Lane 1: MUTYH transfected lysate(59.1 KDa).
Lane 2: Non-transfected lysate.

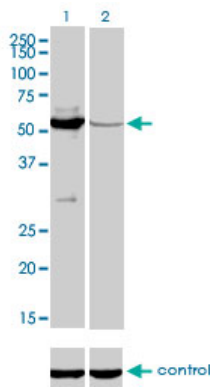
Immunoprecipitation of MUTYH transfected lysate using anti-MUTYH monoclonal antibody and Protein A Magnetic



Bead ([U0007](#)), and immunoblotted with MUTYH MaxPab rabbit polyclonal antibody.



Detection limit for recombinant GST tagged MUTYH is approximately 1ng/ml as a capture antibody.



Western blot analysis of MUTYH over-expressed 293 cell line, cotransfected with MUTYH Validated Chimera RNAi (Cat # AT2939a)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.