Product Datasheet

MYH Antibody (4D10) - Azide and BSA Free H00004595-M01

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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Updated 2/21/2025 v.20.1

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H00004595-M01

MYH Antibody (4D10) - Azide and BSA Free

Product Information	
Unit Size	0.1 mg
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	4D10
Preservative	No Preservative
Isotype	IgG1 Kappa
Purity	IgG purified
Buffer	In 1x PBS, pH 7.4
Product Description	
Description	Quality control test: Antibody Reactive Against Recombinant Protein.
Host	Mouse
Gene ID	4595
Gene Symbol	MUTYH
Species	Human, Mouse
Specificity/Sensitivity	MUTYH - mutY homolog (E. coli)
Immunogen	MUTYH (AAH03178, 436 a.a. ~ 535 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa. KLTYQVYGLALEGQTPVTTVPPGARWLTQEEFHTAAVSTAMKKVFRVYQGQQ PGTCMGSKRSQVSSPCSRKKPRMGQQVLDNFFRSHISTDAHSLNSAAQ
Notes	This product is produced by and distributed for Abnova, a company based in Taiwan.
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:500, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin, Knockdown Validated
Application Notes	Antibody reactivity against cell lysate and recombinant protein for WB. It has been used for RNAi Validation and ELISA.



Images









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Western Blot: MYH Antibody (4D10) [H00004595-M01] - Simultaneous suppression of MTH1 & MYH was efficiently achieved using a two-vector system. (a) Steps of cell line establishment are illustrated here. Top 15% of cells expressing GFP & RFP670 were sorted to improve the knockdown efficiency. Expression levels of MYH & MTH1 were analyzed after 96 h of treatment with Dox in shRNA set1 (b) & shRNA set2 (c) using qRT–PCR analysis. Data were normalized to NT-shRNA expressing cells & presented as mean±s.e.m. from three independent experiments in triplicate. To investigate the knockdown efficiency at protein level, western blot analysis was performed after 96 h of Dox treatment of cells with shRNA set1 (d) & shRNA set2 (e). Data were double normalized with GAPDH & NT-shRNA control samples & expressed as percentage. The graphs represent mean±s.e.m. from three independent experiments. P-values were calculated using one-way analysis of variance (ANOVA). *P<0.05, **P<0.01, ***P<0.001, ****P
0.0001, NS, not significant. Image collected & cropped by CiteAb from the following publication

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Publications

Shangming Tang, Ema Stokasimov, Yuxiang Cui, David Pellman Breakage of cytoplasmic chromosomes by pathological DNA base excision repair Nature 2023-11-27 [PMID: 35477155]

Hahm SH, Chung JH, Agustina L et al Human MutY homolog induces apoptosis in EPE-treated HEK293 cells Oncol Lett 2012-12-01 [PMID: 23226797]

Eshtad S, Mavajian Z, Rudd SG et al. hMYH and hMTH1 cooperate for survival in mismatch repair defective T-cell acute lymphoblastic leukemia. Oncogenesis 2016-12-05 [PMID: 27918552]

Shinmura K, Kato H, Kawanishi Y et al. Reduced expression of the DNA glycosylase gene MUTYH is associated with an increased number of somatic mutations via a reduction in the DNA repair capacity in prostate adenocarcinoma. Mol Carcinog 2016-06-02 [PMID: 27253753]

Shinmura K, Goto M, Suzuki M et al. 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. The Journal of Pathology. 2011-11-01 [PMID: 21826668]

van der Post RS, Kets CM, Ligtenberg MJ et al. Immunohistochemistry is not an accurate first step towards the molecular diagnosis of MUTYH-associated polyposis. Virchows Arch. 2009-01-01 [PMID: 19031083]

Suzuki T, Harashima H, Kamiya H. Effects of base excision repair proteins on mutagenesis by 8-oxo-7,8dihydroguanine (8-hydroxyguanine) paired with cytosine and adenine. DNA Repair (Amst). 2010-02-28 [PMID: 20197241]

Raetz AG, Xie Y, Kundu S et al. Cancer-associated variants and a common polymorphism of MUTYH exhibit reduced repair of oxidative DNA damage using a GFP-based assay in mammalian cells. Carcinogenesis. 2012-09-20 [PMID: 22926731]

Shinmura K, Goto M, Tao H et al. Impaired 8-Hydroxyguanine Repair Activity of MUTYH Variant p.Arg109Trp Found in a Japanese Patient with Early-Onset Colorectal Cancer. Oxid Med Cell Longev. 2014-03-23 [PMID: 24799981]

Agustina L, Hahm SH, Han SH et al. Visualization of the physical and functional interaction between hMYH and hRad9 by Dronpa bimolecular fluorescence complementation. BMC Mol Biol. 2014-08-15 [PMID: 25127721]

Komine K, Shimodaira H, Takao M et al. Functional Complementation Assay for 47 MUTYH Variants in a MutY-Disrupted Escherichia coli strain. Hum Mutat. 2015-03-27 [PMID: 25820570]







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Products Related to H00004595-M01

	Mini Antibody blocking replice
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NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]

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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