

Product Specification Sheet

**Human mutY Antibodies**

<b>Cat #</b> MUTY12-P	Human mutY Control/blocking peptide #2	<b>SIZE:</b> 100 ug
<b>Cat #</b> MUTY12-S	Rabbit Anti-Human mutY antiserum # 2	<b>SIZE:</b> 100 ul
<b>Cat #</b> MUTY12-A	Rabbit Anti-Human mutY IgG # 2, aff pure	<b>SIZE:</b> 100 ug

Escherichia coli **MutY** is an adenine DNA glycosylase active on DNA substrates containing A/G, A/8-oxoG, or A/C mismatches and also has a weak guanine glycosylase activity on G/8-oxoG-containing DNA. The N-terminal domain of MutY, residues 1-226, has been shown to retain catalytic activity. The post-replicative adenine:8-oxo-7,8-dihydroguanine (GO) mismatch is crucial for G:C to T:A transversion. This mismatch is corrected by Escherichia coli MutY which excises the adenine from A:GO. A candidate gene coding for the human counterpart of MutY has been cloned as hMYH (535 aa) (1).

**Source of Antigen and Antibodies**

<b>Antigen</b>	19-aa peptide from <b>human mutY-(1)</b> ; <b>Designation (#MUTY12-P, control/blocking peptide)</b> conjugated to KLH; epitope location ~ C-terminus
<b>Ab Host/type</b>	Rabbit, Polyclonal unpurified antiserum ( <b>#MUTY12-S</b> ) and IgG, purified over antigen-agarose (Cat # <b>MUTY12-A</b> )
<b>2-Ab</b>	Cat # 20320, <b>goat anti-rabbit IgG-HRP</b> (AP, biotin, FITC conjugates also available).
<b>-ve control IgG</b>	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control**

**Antiserum (unpurified)**

100ul solution lyophilized powder  
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% BSA  
**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

100 ug/100 ul solution lyophilized powder  
Supplied in **Buffer:** PBS pH 7.5,  
**Reconstitute powder** in PBS at 1 mg/ml.

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder

**Recommended Usage**

**Western Blotting:** An initial dilution of 1:1K-5K is recommended for Western. Human mutY is approx. 55 kDa protein. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions.

**ELISA** (1:10-50K; using 50-100 ng control peptide/well).

**Histochemistry & Immunofluorescence:** not tested. An initial dilution of 1:500:1K is recommended for IHC. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions.

**Specificity & Cross-reactivity**

Human MUTY12-P peptide sequence has no significant homology with E. coli mutY (1). Antibody crossreactivity in various species is not known. **Control peptide**, because of its low mol size (<3 Kda), is not recommended for Western. It should be used in ELISA, dot blot, and for antibody blocking to confirm specificity of antibodies.

**General References:** 1. Slupska MM et al (1996) J. Bacteriol. 178, 3885-3892; Slupska MM et al (1999) J. Bacteriol 181, 6210-3 Ohtsubo T, et al (2000) Nucleic Acids Res 15:1355-1364; Wright PM et al (1999) J Biol Chem 274, 29011-29018; Takao M et al (1999) Nucleic Acids Res. 27, 3638-44; Noll DM et al (1999) Biochemistry;38, 6374-9

**\*This product is for In vitro research use only.**

**Related material available from ADI**

Antibodies to MGMT, hNTH, Ape, mutY, OGG1, XRCC1, DNA Ligase, Polymerase, XPG, ORC1 etc are available.

MUTY12-S-A-P

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