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#5159

## MYH Antibody

**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 55	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q9UIF7	<b>Entrez-Gene Id:</b> 4595
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

MYH Antibody detects endogenous levels of total MYH protein. Based on the amino acid sequence, the antibody is expected to react with all isoforms of human MYH protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to carboxy terminal residues of human MYH protein. Antibodies are purified using protein A and peptide affinity chromatography.

### Background

Base excision repair (BER) proteins catalyze the removal of incorrect or damaged bases, including oxidized bases, from DNA. N-glycosylases specific to a given lesion remove the incorrect base as the first step in BER. MYH is the mammalian ortholog of *E. coli* MutY, a DNA glycosylase that catalyzes the removal of 8-oxoG:A mismatches (1). Several MYH isoforms have been detected in human cells localizing to either the nucleus or the mitochondria (2). MYH interacts with DNA repair proteins and localizes to DNA damage foci after oxidative damage (3). Research studies have shown that mutations in the corresponding MYH gene are associated with human gastric (4) and colorectal (5-7) cancers.

### Background References

- Slupska, M.M. et al. (1996) *J Bacteriol* 178, 3885-92.
- Ohtsubo, T. et al. (2000) *Nucleic Acids Res* 28, 1355-64.
- Shi, G. et al. (2006) *Biochem J* 400, 53-62.
- Kobayashi, K. et al. (2008) *Anticancer Res* 28, 215-21.
- Bai, H. et al. (2007) *Cancer Lett* 250, 74-81.
- Pope, M.A. et al. (2005) *DNA Repair (Amst)* 4, 315-25.
- Wooden, S.H. et al. (2004) *Cancer Lett* 205, 89-95.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human

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