

**Rabbit Anti-ADH5/ADH3 [MD72R]: RM0460, RM0460RTU7**

**Intended Use:** For Research Use Only

**Description:** The alcohol dehydrogenase family of proteins metabolizes a wide variety of substrates, including retinol, hydroxysteroids, ethanol, aliphatic alcohols and lipid peroxidation products. ADH5 (alcohol dehydrogenase 5 (class III)), also known as FDH (formaldehyde dehydrogenase), ADHX, ADH-3 or GSNOR, is a 374 amino acid cytoplasmic protein that belongs to the class III subfamily of alcohol dehydrogenases. Expressed ubiquitously, ADH5 uses iron as a cofactor to catalytically oxidize both long-chain primary alcohols and S-hydroxymethyl-glutathione, a product formed spontaneously between formaldehyde and glutathione. ADH5 exists as a homodimer and, via its ability to oxidize S-hydroxymethyl-glutathione and, thus, eliminate formaldehyde, functions as an important component of cellular metabolism. Genetic variations in the gene encoding ADH5 may affect drug and alcohol dependence in humans.

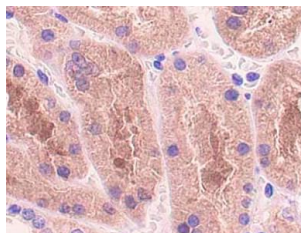
**Specifications:**

Clone: MD72R  
Source: Rabbit  
Isotype: IgG  
Reactivity: Human  
Localization: Cytoplasm  
Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
Storage: Store at 2°- 8°C  
Applications: IHC, WB  
Package:

Description	Catalog No.	Size
ADH5/ADH3 Concentrated	RM0460	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Brain, kidney  
Concentrated Dilution: 100-500  
Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
Incubation Time and Temp: 30-60 minutes @ RT  
Detection: Refer to the detection system manual  
\* Result should be confirmed by an established diagnostic procedure.



FFPE human kidney tissue stained with anti-ADH5/ADH3 using DAB

**References:**

1. Expression pattern, ethanol-metabolizing activities, and cellular localization of alcohol and aldehyde dehydrogenases in human pancreas: implications for pathogenesis of alcohol-induced pancreatic injury. Chiang CP1, et al. Alcohol Clin Exp Res. Jun;33(6):1059-68, 2009.
2. Posttranscriptional regulation of human ADH5/FDH and Myf6 gene expression by upstream AUG codons. Kwon HS, et al. Arch Biochem Biophys. Feb 15;386(2):163-71, 2001.

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Rev. A