

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Rabbit Anti-Isocitrated Dehydrogenase Antibody

Catalog No: 130-10088	Isotype: Rabbit IgG	Species: Human	Accession No: O75874
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Description

Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Isocitrate dehydrogenases appears to function as a tumor suppressor that, when mutationally inactivated, contributes to tumorigenesis in part through induction of the HIF-1 pathway.

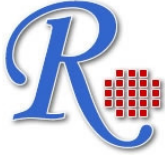
Applications

Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1 : 320,000
Western Blotting			*	
Enzyme Immunoassay(EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation			*	
Flow Cytometry			*	
Neutralization			*	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Preparation

Immunogen was recombinant protein from human isocitrate dehydrogenases. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum followed by Protein A/G affinity chromatography.

Specificity

The antibody binds to human isocitrate dehydrogenases. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat isocitrate dehydrogenases was not tested.

Reconstitution

Product is supplied as a powder obtained from lyophilization of purified antibody in PBS without preservatives. Reconstitute the antibody with sterile 1x PBS to a final concentration of 1 mg/ml.

Storage

Store at 4°C if intended for use within one month, otherwise, store at -20°C to -80°C. The lyophilized antibody is stable for at least 18 months after the date of receipt when stored at -20°C to -80°C. After reconstitution, it can be aliquoted and stored frozen at -20°C to -80°C in a manual defrost freezer for at least 6 months without detectable loss of activity. Upon reconstitution, the antibody can also be stored for 1 month at 4°C. **Please avoid freeze-thaw cycles, as this will lower the activity of the antibody.**

Related products

1. Rabbit Anti-Alcohol Dehydrogenase (cat# MD-14-0981)
2. Mouse Anti-Alcohol Dehydrogenase (cat#MD-15-0109)

Reference

1. Bleeker FE, et al.. (2009) IDH1 mutations at residue p.R132 (IDH1(R132)) occur frequently in high-grade gliomas but not in other solid tumors. Hum Mutat. 30(1):7-11.
2. Murugan AK, et al.. (2010) Identification and functional characterization of isocitrate dehydrogenase 1 (IDH1) mutations in thyroid cancer. Biochem Biophys Res Commun. 393(3):555-9.

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