# (KO Validated) IDH1 Polyclonal Antibody

Catalog Number: E-AB-64515



Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Description**

Reactivity Human, Mouse, Rat

**Immunogen** Recombinant fusion protein of human IDH1 (NP\_005887.2).

Host Rabbit
Isotype IgG

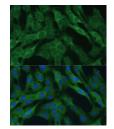
Purification Affinity purification
Conjugation Unconjugated

**Formulation** PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Applications** Recommended Dilution

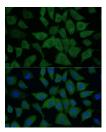
**IF** 1:50-1:200

## Data



Immunofluorescence analysis of C6 cells using IDH1 Polyclonal Antibody at dilution of 1:100 (40x lens).

Blue: DAPI for nuclear staining.



Immunofluorescence analysis of L929 cells using IDH1 Polyclonal Antibody at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

### **Preparation & Storage**

**Storage** Store at -20°C. Avoid freeze / thaw cycles.

#### **Background**

Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. 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. Alternatively spliced transcript variants encoding the same protein have been found for this gene.

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