

IDH1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP7454c**Specification**

IDH1 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O75874](#)**IDH1 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 3417**Other Names**

Isocitrate dehydrogenase [NADP] cytoplasmic, IDH, Cytosolic NADP-isocitrate dehydrogenase, IDP, NADP(+)-specific ICDH, Oxalosuccinate decarboxylase, IDH1, PICD

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7454c](/products/AP7454c) was selected from the Center region of human IDH1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IDH1 Antibody (Center) Blocking Peptide - Protein Information**Name** IDH1**Synonyms** PICD**Function**

Catalyzes the NADP(+)-dependent oxidative decarboxylation of isocitrate (D-threo-isocitrate) to 2-ketoglutarate (2-oxoglutarate), which is required by other enzymes such as the phytanoyl-CoA dioxygenase (PubMed: [10521434](http://www.uniprot.org/citations/10521434), PubMed: [19935646](http://www.uniprot.org/citations/19935646)). Plays a critical role in the generation of NADPH, an important cofactor in many biosynthesis pathways (PubMed: [10521434](http://www.uniprot.org/citations/10521434)). May act as a corneal epithelial crystallin and may be involved in maintaining corneal epithelial transparency (By similarity).

Cellular Location

Cytoplasm, cytosol. Peroxisome

IDH1 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

IDH1 Antibody (Center) Blocking Peptide - Images**IDH1 Antibody (Center) Blocking Peptide - Background**

IDH1 belongs to two distinct subclasses. The protein is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. This protein 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.

IDH1 Antibody (Center) Blocking Peptide - References

Geisbrecht B.V., Gould S.J.J. Biol. Chem. 274:30527-30533(1999) Xu X., Zhao J., Xu Z.J. Biol. Chem. 279:33946-33957(2004) Bleeker F.E., Lamba S. Hum. Mutat. 30:7-11(2009)