10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP1927a

Specification

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - Product Information

Primary Accession P50213

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - Additional Information

Gene ID 3419

Other Names
Isocitrate dehydrogenase [NAD] subunit alpha, mitochondrial, Isocitric dehydrogenase subunit alpha, NAD(+)-specific ICDH subunit alpha, IDH3A

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1927a was selected from the C-term region of human Isocitrate dehydrogenase. 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.

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - Protein Information

Name IDH3A (HGNC:5384)

Function
Catalytic subunit of the enzyme which catalyzes the decarboxylation of isocitrate (ICT) into alpha-ketoglutarate. The heterodimer composed of the alpha (IDH3A) and beta (IDH3B) subunits and the heterodimer composed of the alpha (IDH3A) and gamma (IDH3G) subunits, have considerable basal activity but the full activity of the heterotetramer (containing two subunits of IDH3A, one of IDH3B and one of IDH3G) requires the assembly and cooperative function of both heterodimers.

Cellular Location
Mitochondrion.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - Images

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - 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. NAD(+)-dependent isocitrate dehydrogenases catalyze the allosterically regulated rate-limiting step of the tricarboxylic acid cycle. Each isozyme is a heterotetramer that is composed of two alpha subunits, one beta subunit, and one gamma subunit. The protein described here is the alpha subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase.

IsocitRe dehydrogenase (IDH3) Antibody (C-term) Blocking peptide - References

Soundar, S., et al., J. Biol. Chem. 278(52):52146-52153 (2003).Weiss, C., et al., Biochemistry 39(7):1807-1816 (2000).Kim, Y.O., et al., J. Biol. Chem. 274(52):36866-36875 (1999).Huh, T.L., et al., Genomics 32(2):295-296 (1996).Kim, Y.O., et al., Biochem. J. 308 (PT 1), 63-68 (1995) (): ().