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AP21327BT-N Polyclonal Antibody to Isocitrate dehydrogenase / IDH - Biotin

Alternate names: Cytosolic NADP-isocitrate dehydrogenase, ICDH, IDP, NADP(+)-specific ICDH, Oxalosuccinate decarboxylase, PICD, cytoplasmic Isocitrate dehydrogenase [NADP]

Quantity: 1 ml

Concentration: 10 mg/ml

Background: Isocitrate dehydrogenase is an enzyme involved in the citric acid cycle. It is 416 amino acids long with a molecular weight of approximately 45 kDa.
Isocitrate dehydrogenase enzymes catalyze the oxidative decarboxylation of isocitrate to produce alfa ketoglutarate. The human genome has 5 IDH genes coding for 3 IDH enzymes. The IDH1 and IDH2 require nicotinamide adeninedinucleotide phosphate (NADP) as co-substrate, whereas IDH3 require nicotinamide adenine dinucleotide (NAD). The IDH2 and 3 are localized in mitochondria and are actively involved in the citric acid cycle (TCA) for energy production in contrast, IDH1 is localized in cytoplasm and peroxisomes where it generates NADPH, reduced form of NADP for biosynthetic and other types of reaction. Since alfa KG and NADPH both are intermediately substrate for a number of cellular process, which allows the possibility of oncogenic or tumor suppressive activities of IDH1.

Uniprot ID: P20304

NCBI: 9823

Host / Isotype: Rabbit / IgG

Immunogen: Isocitrate Dehydrogenase isolated and purified from Porcine heart.
Freund's complete adjuvant is used in the first step of the immunization procedure.

Format:
State: Lyophilized hyperimmune IgG fraction
Purification: Ammonium Sulphate Precipitation and Ion Exchange Chromatography
Buffer System: PBS, pH 7.2 without preservatives and foreign proteins
Label: Biotin
Molar Ratio: Biotin/IgG ~6.5
Reconstitution: Restore by adding 1.0 ml sterile distilled water

Applications: This product is intended for use in precipitating and non-precipitating antibody-binding assays (such as e.g., ELISA and Western blotting and Immunofluorescence or Histochemical techniques), to prepare an insoluble immuno-affinity adsorbent, for labelling with a marker of choice.
Working Dilutions:
Non-precipitating antibody-binding techniques: 1/1,000-1/15,000.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Isocitrate Dehydrogenase isolated and purified from Porcine heart.
The reagents were evaluated for potency, purity and specificity using most or all of the following techniques: Immunoelectrophoresis, Cross-Immunoelectrophoresis, Single Radial Immunodiffusion (Ouchterlony), block titration, ELISA, Immunoblotting and enzyme inhibition.
Cross-reactivities against enzymes of other sources may occur but have not been determined.
Species: Pig.
Other species not tested.

Storage:

Store the antibody lyophilized at 2-8°C and reconstituted at 2-8°C for one week or (in aliquots) at -20°C for longer.
If a slight precipitation occurs upon storage, this should be removed by centrifugation.
Shelf life: one year from despatch.