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IDH3G Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9797b

Product Information

Application	FC, WB, E
Primary Accession	P51553
Other Accession	P41564, Q58CP0
Reactivity	Human
Predicted	Bovine, Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24877
Calculated MW	42794
Antigen Region	366-393

Additional Information

Gene ID	3421
Other Names	Isocitrate dehydrogenase [NAD] subunit gamma, mitochondrial, Isocitric dehydrogenase subunit gamma, NAD(+)-specific ICDH subunit gamma, IDH3G
Target/Specificity	This IDH3G antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 366-393 amino acids from the C-terminal region of human IDH3G.
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IDH3G Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IDH3G
Function	Regulatory subunit which plays a role in the allosteric regulation of the enzyme catalyzing 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.

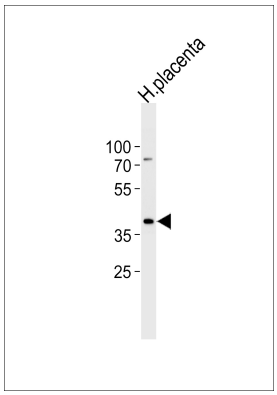
Background

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 encoded by this gene is the gamma subunit of one isozyme of NAD(+)-dependent isocitrate dehydrogenase. This gene is a candidate gene for periventricular heterotopia.

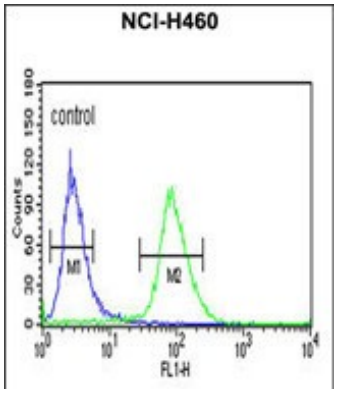
References

Bzymek, K.P., et al. Biochemistry 46(18):5391-5397(2007)
Soundar, S., et al. J. Biol. Chem. 281(30):21073-21081(2006)
Simpson, J.C., et al. EMBO Rep. 1(3):287-292(2000)
Weiss, C., et al. Biochemistry 39(7):1807-1816(2000)

Images



Western blot analysis of lysate from human placenta tissue lysate, using IDH3G Antibody (C-term)(Cat. #AP9797b). AP9797b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



IDH3G Antibody (C-term) (Cat. #AP9797b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.