

Rabbit Anti-IDH1 Polyclonal: RC0414, RC0414RTU7

Intended Use: For Research Use Only

Description: The Isocitrate dehydrogenase cytoplasmic enzyme is a homodimer of 416 residues that belongs to the isocitrate and isopropylmalate dehydrogenases family. IDHC catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming α -ketoglutarate and CO₂ in a two step reaction. The first step involves the oxidation of isocitrate to the intermediate oxalosuccinate, while the second step involves the production of α -ketoglutarate. During this process, either NADH or NADPH is produced along with CO₂. Ca²⁺ can bind to IDHC as a complex with isocitrate, acting as a competitive inhibitor of Mg²⁺. The IDHC enzyme is inactivated by phosphorylation at Ser-113 and contains a clasp-like domain wherein both polypeptide chains in the dimer interlock. IDHC is expressed in a wide range of species and also in organisms that lack a complete citric acid cycle.

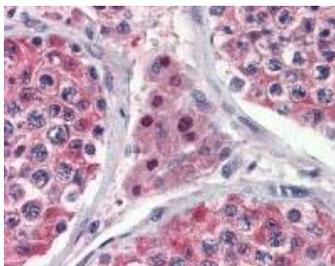
Specifications:

Clone: Polyclonal
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human, mouse
 Localization: Cytoplasm
 Formulation: Purified in PBS pH 7.5, containing BSA, and < 0.09% sodium azide (NaN₃).
 Storage: Store at 2°- 8°C
 Applications: IHC, ELISA, Flow Cyt., ICC, IF, WB
 Package:

Description	Catalog No.	Size
IDH1 Concentrated	RC0414	1 ml
IDH1 Prediluted	RC0414RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Kidney or testis lysates, normal liver
 Concentrated Dilution: 10-100
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual
 * Result should be confirmed by an established diagnostic procedure.



Human FFPE testis tissue stained with anti-IDH1 using AEC

References:

1. Diagnostic discrepancies in malignant astrocytoma due to limited small pathological tumor sample can be overcome by IDH1 testing. Kim BY, et al. J Neurooncol. Jun;118(2):405-12, 2014.
2. Isocitrate dehydrogenase 1 is a novel plasma biomarker for the diagnosis of non-small cell lung cancer. Sun N, et al. Clin Cancer Res. Sep 15;19(18):5136-45, 2013.
3. Immunohistochemical detection of IDH1 mutation, p53, and internexin as prognostic factors of glial tumors. Takano S, et al. J Neurooncol. Jul;108(3):361-73, 2012.

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Rev. A