

Rabbit Anti-IDH2 (Isocitrate Dehydrogenase 2) [MD68R]: RM0295, RM0295RTU7

Intended Use: For Research Use Only

Description: It recognizes a 45kDa protein, which is identified as isocitrate dehydrogenase (IDH1). It belongs to the isocitrate and isopropylmalate dehydrogenases family. IDH1 catalyzes the third step of the citric acid cycle, which involves the oxidative decarboxylation of isocitrate, forming alpha-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 alpha-ketoglutarate. During this process, either NADH or NADPH is produced along with CO₂. Recently, an inactivating mutation of IDH1 has been implicated in glioblastoma. IDH1 appears to function as a tumor suppressor that, when mutationally inactivated, contributes to tumorigenesis in part through induction of the HIF-1 pathway.

Specifications

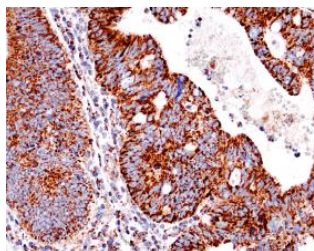
Clone: MD68R
Source: Rabbit
Isotype: IgG
Reactivity: Human, mouse, rat
Localization: Mitochondrion
Formulation: Antibody in PBS pH7.4., containing BSA and ≤ 0.09% sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC, IP, WB
Package:

Description	Catalog No.	Size
IDH2 (Isocitrate Dehydrogenase 2) Concentrated	RM0295	1 ml
IDH2 (Isocitrate Dehydrogenase 2) Prediluted	RM0295RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Liver
Concentrated Dilution: 25-100
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.



FFPE human colon adenocarcinoma stained with anti-IDH2 using DAB

References

1. Reverse TCA cycle flux through isocitrate dehydrogenases 1 and 2 is required for lipogenesis in hypoxic melanoma cells. Philipp FV, et al. Pigment Cell Melanoma Res. May;25(3):375-83, 2012.
2. Acquired mutations in the genes encoding IDH1 and IDH2 both are recurrent aberrations in acute myeloid leukemia: prevalence and prognostic value. Abbas S, et al. Blood. Sep 23;116(12):2122-6, 2010.
3. IDH1 mutations are early events in the development of astrocytomas and oligodendrogliomas. Watanabe T, et al. Am J Pathol. Apr;174(4):1149-53, 2009.

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Rev. A