

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

Intended Use: For Research Use Only

Description: Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses that utilize either NAD or NADP⁺ as an electron acceptor. 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 (IDH2) and the other predominantly cytosolic (IDH1). Each NADP⁺ dependent isozyme is a homodimer. IDH2, a 452 amino acid enzyme, is involved in the reduction of NADP⁺ to NADPH and maintains mitochondrial glutathione levels. It plays a role in intermediary metabolism and energy production. This protein may tightly associate or interact with the pyruvate dehydrogenase complex.

Specifications

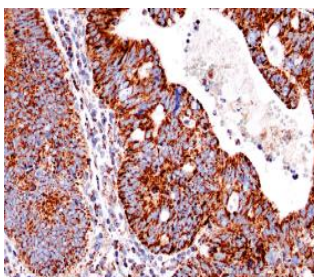
Clone: MD68R
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human, mouse, rat
 Immunogen: Synthetic peptide of human IDH2 protein Val195
 Localization: Mitochondrion
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, IP, WB
 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.