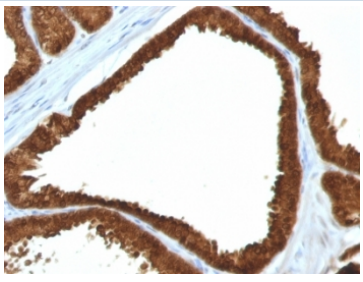
# IDH1 Antibody [clone IDH1/1152] (V2609)

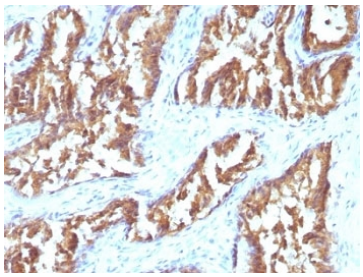
| Catalog No. | Formulation | Size |
|---|---|---|
| V2609-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V2609-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V2609SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |
| V2609IHC-7ML | Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only* | 7 ml |

## Bulk quote request

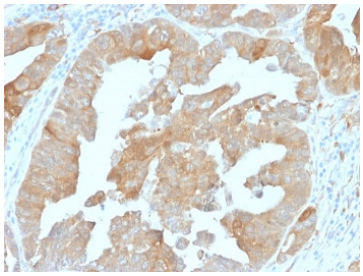
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | IDH1/1152 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | O75874 |
| **Localization** | Cytoplasmic & nuclear |
| **Applications** | Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT<br>Immunofluorescence : 1-2ug/ml |
| **Limitations** | This IDH1 antibody is available for research use only. |



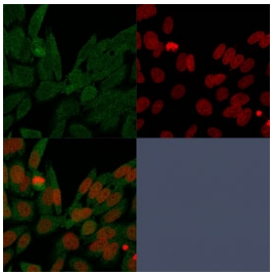
IHC: Formalin-fixed, paraffin-embedded human colon carcinoma stained with IDH1 antibody (clone IDH1/1152).



IHC: Formalin-fixed, paraffin-embedded human prostate carcinoma stained with IDH1 antibody (clone IDH1/1152).



IHC: Formalin-fixed, paraffin-embedded human prostate carcinoma stained with IDH1 antibody (clone IDH1/1152).



Immunofluorescent staining of PFA-fixed human HeLa cells with IDH1 antibody (clone IDH1/1152, green) and Reddot nuclear stain (red).

## 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 a-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 a-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.

## Application Notes

Optimal dilution of the IDH1 antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0 or 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

## Immunogen

A recombinant fragment (119 amino acid residues around aa 280-420) from the human protein was used as the immunogen for the IDH1 antibody.

## Storage

Store the IDH1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).