

**Localization** – Cytoplasm

**Host Species** – Rabbit

**Ig Class** – IgG

### Intended Use

This antibody is designed for the specific localization of IDH1 R132H in formalin-fixed, paraffin-embedded (FFPE) tissue sections.

### Storage & Handling

Store RTU Vial at 2-8°C. Fresh dilutions for concentrated antibodies, if required, should be prepared prior to use and are stable for up to one day at room temperature (20-26°C).

### Working Principle

IHC is a two-step process wherein the primary antibody binds to the antigen of interest and that binding is detected by a chromogen. The primary antibody may be used in IHC using manual techniques or any Automated Staining System. Positive and negative controls should always be run simultaneously with all patient specimens.

### Product Description

The IDH1 gene on chromosome 2q33.3 encodes for isocitrate dehydrogenase 1 (IDH1), located in the cytoplasm and the peroxisomes. This enzyme catalyzes NADPH production via oxidative decarboxylation of isocitrate to alpha-ketoglutarate in the Krebs citric acid cycle. Studies have shown that IDH1 mutation is an early step in gliomagenesis and has been reported to occur in grades II and III astrocytomas, oligodendrogliomas (OG), oligoastrocytomas (OA), and secondary GBM. Mutations involving IDH1 occur in a high proportion of diffuse gliomas, with implications on diagnosis. About 90% involve exon 4 at codon 132, replacing amino acid arginine with histidine (R132H). Preliminary studies comparing Immunohistochemistry (IHC) with IDH1-R132H mutation-specific antibodies have shown concordance with DNA sequencing and no cross-reactivity with wild-type IDH1 or other mutant proteins.

### Material Supplied

IDH1 R132H antibody is affinity purified and diluted in PBS, pH 7.4, containing 1% BSA and 0.09% sodium azide.

### Material required But Not Supplied

- Xylene
- Isopropyl alcohol
- Positive charged slides
- Wash Buffer
- DI Water
- Antigen retrieval buffers
- Blocking Reagents
- Detection System
- Control Tissues
- Hematoxylin
- Mounting media
- Cover glass

### Working Reagent Procedure

- Ready-to-Use antibodies have been optimized for use with the recommended protocols and should not require further dilution.
- Concentrated antibodies must be diluted in accordance with the recommended protocol.

### Recommended Protocol

Refer the following table for the details on specific recommended protocol for this antibody.

<b>Control Tissue</b>	Glioma, Glioblastoma, Astrocytoma with IDH1 R132H Mutation	<b>Antibody Incubation Time</b>	30-60 Minutes at RT
<b>Dilution factor</b>	<b>1:20-50</b> (Antibody Diluent: DH144)	<b>Retrieval Pre-treatment</b>	<b>Tris-EDTA based HIER</b> (AR9 Buffer: DH020)

### Precautions

*This product should be used by qualified and trained professional users only.*

Avoid microbial contamination of reagents to minimize non-specific staining. Never pipette reagents by mouth. Avoid contact of reagents and specimens with skin. If reagents or specimens come into contact with sensitive area, wash with sufficient amounts of water. Dispose of the unused reagents. This kit contains sodium azide at concentrations of less than 0.1%. Sodium azide is not classified as a hazardous chemical at these concentrations, but proper handling protocols should be observed. For more information on product hazards, precautions and waste disposal, *Material Safety Data Sheets* are available upon request.

### Limitations

Improper tissue handling and processing prior to immunostaining can lead to inconsistent results. Variations in embedding and fixation or the nature of the tissue may lead to variations in results. Endogenous peroxidase activity or pseudo peroxidase activity in erythrocytes and tissue biotin may result in non-specific staining based on the detection system employed. Tissues containing Hepatitis B Surface Antigen (HBsAg) may give false positive with horseradish peroxidase systems. Improper counterstaining and mounting may compromise the interpretation of results. Interpretation of the staining result is solely the responsibility of the user. Experimental results should be confirmed by a medically-established diagnostic product or procedure. Evaluation must be performed by a qualified pathologist.

### Troubleshooting

For Technical Support contact us at +91 - 7506501122 or [info@dygnova.com](mailto:info@dygnova.com) or your local distributor to report unusual staining.

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	Manufacturer Details		Use by Date	<b>LOT</b>	Lot/Batch Number
	Manufacturing Date		Consult Instructions for Use	<b>REF</b>	Catalogue Number
	Temperature Limits		Sufficient for 'n' assays / tests	<b>IVD</b>	In-vitro Diagnostic Medical Device