

# IDH1-R132S

## monoclonal antibody

### (SMAb-1)

Mutations in the IDH 1 gene are commonly found in human gliomas. The Arginine to Serine substitution at amino acid 132 seen in gliomas, abolishes magnesium binding and alters enzyme activity so that isocitrate is no longer converted to alpha-ketoglutarate but instead alpha-ketoglutarate is converted to R(-)-2- hydroxyglutarate.

Isocitrate dehydrogenase 1 (NADP+), soluble is an enzyme that in humans is encoded by the IDH1 gene. Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. IDH1 is one of three isocitrate dehydrogenase isozymes, the other two being IDH2 and IDH3. IDH1 mutations are heterozygous, typically involving an amino acid substitution in the active site of the enzyme in codon 132. The mutation results in a loss of normal enzymatic function and the abnormal production of 2-hydroxyglutarate (2-HG). Mutations in IDH1 are often the first hit in the development of diffuse gliomas, suggesting IDH1 mutations as key events in the formation of these brain tumors.

This antibody is covered by our [Worry-Free Guarantee](#).

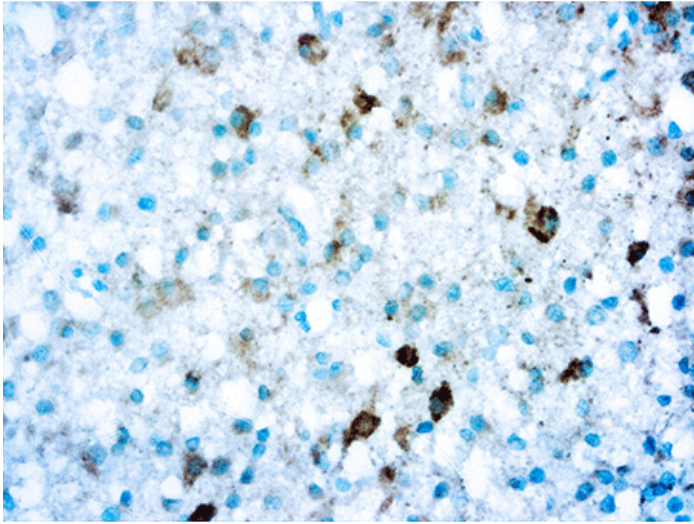
### Ordering Information

[Order Online »](#)

ENZ-ABS854-1000	1ml
ENZ-ABS854-0100	100µl

### Manuals, SDS & CofA

[View Online »](#)



Formalin fixed paraffin embedded anaplastic oligodendroglioma stained with IDH1 antibody

## Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

## Regulatory Status RUO - Research Use Only

## Product Details

Alternative Name Isocitrate dehydrogenase 1

Application IHC (PS)

Application Notes Pretreatment: Tris/EDTA Buffer pH 9.0

Clone SMab-1

Formulation This product is supplied as a purified tissue culture supernatant and contains sodium azide as a preservative.

Host Mouse

Immunogen KLH-conjugated linear peptide corresponding to human Isocitrate Dehydrogenase 1 (IDH1)-R132S

Isotype IgG1k

Positive Control Human Glioma tissue

Recommendation Dilutions/Conditions Antibody dilutions should be appropriately adjusted and verified according to the detection system used. Optimal conditions must be determined individually for each application.

Species Reactivity Human

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