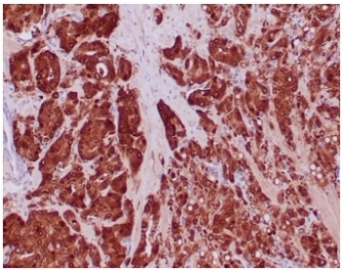
IDH1 R132H Antibody IDH1/6806R / IDH1 R132H Mutation Antibody [clone IDH1/6806R] (V9378)

Catalog No.	Formulation	Size
V9378-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9378-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9378SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

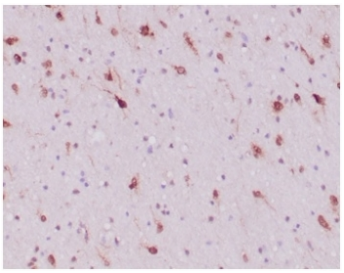
Recombinant RABBIT MONOCLONAL

Bulk quote request

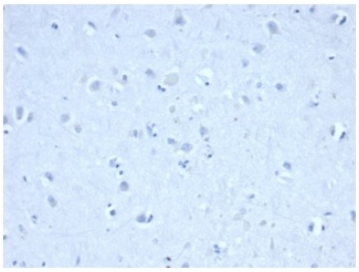
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	IDH1/6806R
Purity	Protein A/G affinity
UniProt	O75874
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This IDH1 R132H Antibody IDH1/6806R / IDH1 R132H Mutation Antibody is available for research use only.



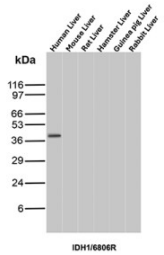
IDH1 R132H Antibody IDH1/6806R Staining of R132H-Mutant Human Prostate Carcinoma IHC. Immunohistochemistry of FFPE human prostate carcinoma tissue containing IDH1 R132H-mutated protein using IDH1 R132H Antibody, clone IDH1/6806R. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before staining. Strong brown immunoreactivity is visible in tumor cells, demonstrating detection of the IDH1 R132H mutation protein in the tested prostate carcinoma specimen.



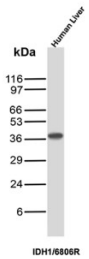
IDH1 R132H Antibody IDH1/6806R Staining of Human Glioblastoma IHC. Immunohistochemistry of FFPE human glioblastoma tissue using IDH1 R132H Antibody, clone IDH1/6806R. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before staining. Prominent brown immunoreactivity is observed throughout numerous tumor cells, demonstrating detection of IDH1 R132H Mutation protein in the tested glioblastoma tissue.



IDH1 R132H Antibody IDH1/6806R Negative Control in Human Cerebellum IHC. Immunohistochemistry of FFPE human cerebellum tissue using IDH1 R132H Antibody, clone IDH1/6806R, at 2 ug/ml for 30 min at RT. HIER was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling before staining. The absence of appreciable specific brown immunoreactivity provides a negative tissue control for this IDH1 R132H Mutation Antibody under the tested conditions.



IDH1 R132H Antibody IDH1/6806R Detection in Human and Animal Liver Samples WB. Western blot analysis of liver tissue lysates from human, mouse, rat, hamster, guinea pig, and rabbit using IDH1 R132H Antibody, clone IDH1/6806R. A prominent band is detected at approximately 45-47 kDa in the human liver lane, while no comparable signal is visible in the mouse, rat, hamster, guinea pig, or rabbit liver samples. The observed result demonstrates selective detection in the human liver sample by this IDH1 R132H Mutation Antibody under the tested conditions.



IDH1 R132H Antibody IDH1/6806R Detection in Human Liver WB. Western blot analysis of human liver tissue lysate using IDH1 R132H Antibody, clone IDH1/6806R. A strong, discrete band is detected at approximately 40 kDa, near the expected molecular weight of IDH1. The prominent target band and minimal additional background demonstrate clean detection by this IDH1 R132H Mutation Antibody under the tested conditions.

Description

IDH1 R132H Antibody IDH1/6806R / IDH1 R132H Mutation Antibody recognizes the R132H mutant form of isocitrate dehydrogenase 1 (IDH1), a recurrent cancer-associated alteration in which arginine at amino acid 132 is replaced by histidine. IDH1 is normally an NADP-dependent metabolic enzyme that catalyzes conversion of isocitrate to alpha-ketoglutarate while generating NADPH. The R132H substitution alters the catalytic properties of IDH1 and creates a neomorphic enzyme with important consequences for cellular metabolism and epigenetic regulation.

Mutant IDH1 R132H converts alpha-ketoglutarate to D-2-hydroxyglutarate rather than carrying out the normal IDH1 reaction. Accumulation of D-2-hydroxyglutarate can interfere with alpha-ketoglutarate-dependent enzymes, including proteins involved in DNA and histone demethylation. These effects can produce widespread changes in cellular differentiation and gene regulation, providing a mechanistic connection between mutant IDH1 activity and tumor biology.

The R132H substitution is the most common IDH1 mutation in diffuse gliomas and is particularly associated with lower-grade diffuse gliomas and secondary glioblastomas. Detection of this specific mutant protein is therefore widely investigated in neuropathology and cancer research. IDH1 mutations are also studied in other malignancies, but the frequency and specific amino acid substitution vary among tumor types. An IDH1 R132H Mutation Antibody enables researchers to distinguish this mutant protein from wild-type IDH1 rather than measuring total IDH1 expression.

Clone IDH1/6806R is a recombinant rabbit monoclonal antibody generated using a portion of amino acids 281-414 of human IDH1 as the immunogen. The antibody recognizes IDH1 R132H-mutated protein without binding wild-type IDH1. NSJ Bioreagents offers this IDH1 R132H Antibody for researchers investigating mutant IDH1 expression and cancer-associated metabolic alterations. An IDH1 R132H Antibody provides a mutation-specific reagent for studying the R132H form of this metabolically altered enzyme.

Explore our Cancer Marker Antibodies page for additional reagents targeting mutation-associated proteins and other markers used in cancer biology and tumor classification.

Application Notes

Optimal dilution of the IDH1 R132H Antibody IDH1/6806R / IDH1 R132H Mutation Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 281-414 was used as the immunogen for the IDH1 R132H Antibody IDH1/6806R.

Storage

Aliquot the IDH1 R132H Antibody IDH1/6806R and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

IDH1 R132H antibody, IDH1 R132H mutation antibody, IDH1 R132H mutant antibody, Isocitrate dehydrogenase 1 R132H antibody, Isocitrate dehydrogenase R132H antibody

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