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Anti-IDH1 R132H / DIA-H09-L RTU Mouse monoclonal anti-brain tumor marker (Astrocytoma, Oligodendroglioma), Clone H09

Product Information

Catalog No.:	DIA-H09-L 8ml prediluted, ready to use (RTU)	Visualization:	Cytoplasmic
Clone:	H09		
Isotype:	Mouse IgG2a	Presentation:	Prediluted antibody purified from culture
Specificity:	Human IDH1 R132H point mutation		supernatant in PBS with 2% BSA, 0.05%
Immunogen:	Synthetic peptide, amino acid sequence CKPIIIGHHAYGD Liquid, prediluted, 8ml	Applications:	NaN3, pH 7.4. Immunohistochemistry (standard formalin-fixed paraffin sections) No further dilution is required
Physical State:			
Species	Human	Dilutions:	
Reactivity:			(Positive/pegative controls should be run
Positive	Oligodendroglioma, diffuse astrocytoma		simultaneously with tissue specimen)
Control:			
Negative	Pilocytic astrocytoma, primary		
Control:	glioblastoma (ca. 95% of cases negative)	Associated Antibody: DIA-AX1, anti-ATRX, clone AX1	

Reactivity

Antibody clone H09 reacts specifically with the isocitrate dehydrogenase 1 (IDH1) R132H point mutation in tissue sections from formalin-fixed brain tumor specimens. Heterozygous point mutations of IDH1 codon 132 are frequent in World Health Organization (WHO) grade II and III gliomas. IDH1 R132H mutations occur in approximately 70% of astrocytomas and oligodendroglial tumors. The high frequency and distribution of the IDH1 R132H mutation among specific brain tumor entities allow the highly sensitive and specific discrimination of various tumors by immunohistochemistry, such as anaplastic astrocytoma from primary glioblastoma or diffuse astrocytoma WHO grade II from pilocytic astrocytoma or ependymoma. Noteworthy is the discrimination of the infiltrating edge of tumors with IDH1 mutation from reactive gliosis. This antibody is highly useful for tumor classification and in detecting single infiltrating tumor cells. The routine practical approach for diagnosing astrocytomas and oligodendrogliomas begins with perfoming IHC for IDH1 R132H and ATRX expression (Reuss et al., 2015).

Instructions for Use

Immunohistochemical staining of standard formalin-fixed paraffin sections

Deparaffinize and rehydrate according to standard procedures. Recommended for manual staining procedures and heat induced antigen retrieval with citrate buffer pH 6.0. For immunohistochemical detection follow the instructions provided with the particular visualization system. This antibody has been pretitered and quality controlled on FFPE tissue sections following a standard protocol on Ventana Benchmark XT stainer (pretreatment CC1 mild, detection DAB ultraView kit). No further dilution is required. **Technical note**

Diffuse astrocytoma WHO grade II may have low protein-expression. At high dilution of the antibody single tumor cells in the infiltration zone may not be stained.

Storage and Stability

The stability of the liquid H09 antibody has been tested intensively. This liquid antibody formulation is highly stable even at room temperature for several weeks. We recommend to store liquid antibody at 2-8°C for several month.

Safety Notes

The material contains 0.05% sodium azide as preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material. Avoid skin and eye contact, inhalation, and ingestion.

For research use only. Not for diagnostic or therapeutic use.



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Immunohistochemistry of human IDH1 R132H in formalin-fixed paraffin-embedded brain tissue sections

Strong reaction of prediluted anti-IDH1 mutation specific antibody lone H09 with IDH1 R132H mutated glioma following a standard protocol for Ventana Benchmark XT automated stainer: Pretreatment CC1 mild, detection: DAB ultraView kit.



References

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