10320 Camino Santa Fe, Suite G
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OLIG2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1519a

Specification

OLIG2 Antibody - Product Information

Application	**E, WB, IHC, IF**
Primary Accession	Q13516
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**32kDa KDa**

Description
This gene encodes a basic helix-loop-helix transcription factor which is expressed in oligodendroglial tumors of the brain. The protein is an essential regulator of ventral neuroectodermal progenitor cell fate. The gene is involved in a chromosomal translocation t(14;21)(q11.2;q22) associated with T-cell acute lymphoblastic leukemia. Its chromosomal location is within a region of chromosome 21 which has been suggested to play a role in learning deficits associated with Down syndrome. Tissue specificity: Expressed in the brain, in oligodendrocytes. Strongly expressed in oligodendrogliomas, while expression is weak to moderate in astrocytomas. Expression in glioblastomas highly variable.

Immunogen
Purified recombinant fragment of human OLIG2 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

OLIG2 Antibody - Additional Information

Gene ID 10215

Other Names
Oligodendrocyte transcription factor 2, Oligo2, Class B basic helix-loop-helix protein 1, bHLHb1, Class E basic helix-loop-helix protein 19, bHLHe19, Protein kinase C-binding protein 2, Protein kinase C-binding protein RACK17, OLIG2, BHLHB1, BHLHE19, PRKCBP2, RACK17

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/500 - 1/2000
IF~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

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OLIG2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

OLIG2 Antibody - Protein Information

Name OLIG2

Synonyms BHLHB1, BHLHE19, PRKCBP2, RACK17

Function
Required for oligodendrocyte and motor neuron specification in the spinal cord, as well as for the development of somatic motor neurons in the hindbrain. Functions together with ZNF488 to promote oligodendrocyte differentiation. Cooperates with OLIG1 to establish the pMN domain of the embryonic neural tube. Antagonist of V2 interneuron and of NKX2-2-induced V3 interneuron development.

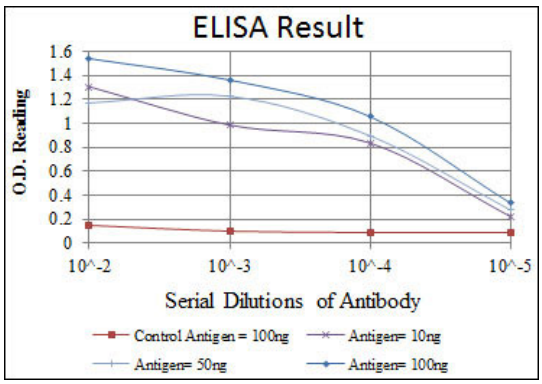
Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00981}. Cytoplasm. Note=The NLS contained in the bHLH domain could be masked in the native form and translocation to the nucleus could be mediated by interaction either with class E bHLH partner protein or with NKX2-2.

Tissue Location
Expressed in the brain, in oligodendrocytes. Strongly expressed in oligodendrogliomas, while expression is weak to moderate in astrocytomas. Expression in glioblastomas highly variable

OLIG2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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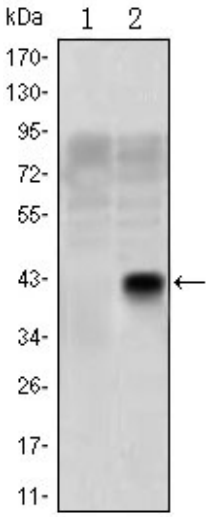


Figure 1: Western blot analysis using OLIG2 mAb against HEK293 (1) and OLIG2(AA: 1-122)-hIgGFc transfected HEK293 (2) cell lysate.

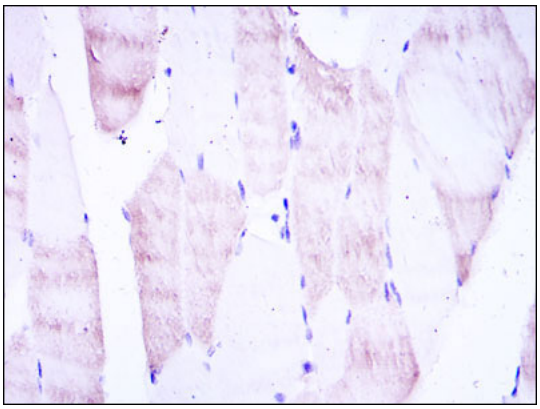


Figure 2: Immunohistochemical analysis of paraffin-embedded muscle tissues using OLIG2 mouse mAb with DAB staining.

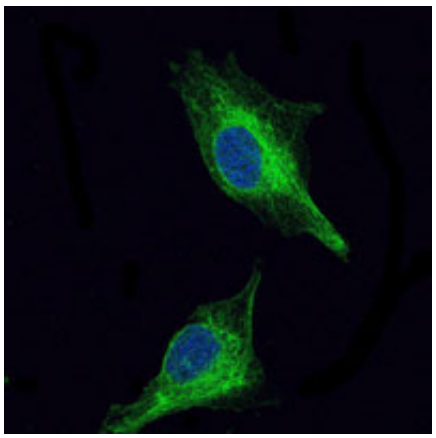


Figure 3: Immunofluorescence analysis of U251 cells using OLIG2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

OLIG2 Antibody - References

1. Am J Med Genet B Neuropsychiatr Genet. 2008 Jun 5;147B(4):538-9. 2. Virchows Arch. 2007 May;450(5):575-84.