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# OLIG2 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52803

## Product Information

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| **Application** | WB |
| **Primary Accession** | Q13516 |
| **Reactivity** | Transfected |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgG1 |
| **Calculated MW** | 32385 |

## Additional Information

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| **Gene ID** | 10215 |
| **Other Names** | Basic domain helix loop helix protein class B 1; Basic helix loop helix protein class B 1; BHLHB; bHLHB1; bHLHe19; Class B basic helix loop helix protein 1; Class B basic helix-loop-helix protein 1; class E basic helix loop helix protein 19; Class E basic helix-loop-helix protein 19; Human protein kinase C binding protein RACK17; Olig2; OLIG2_HUMAN; Oligo2; Oligodendrocyte lineage transcription factor 2; Oligodendrocyte specific bHLH transcription factor 2; Oligodendrocyte transcription factor 2; OTTHUMP00000067569; OTTHUMP00000067570; PRKCBP2; Protein kinase C binding protein 2; Protein kinase C binding protein RACK17; Protein kinase C-binding protein 2; Protein kinase C-binding protein RACK17; RACK17. |
| **Dilution** | WB~~1:1000 |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3. |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

## Protein Information

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| **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. Works in coordination with ZNF488 to promote oligodendrocyte differentiation. Orchestrates progenitor cell fates during cortical gliogenesis and gliomagenesis. In cooperation with OLIG2, activates oligodendrocyte |

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| | precursor cells (OPCs) formation while repressing the generation of olfactory bulb interneuron intermediate progenitors (OBIN) generation through transcriptional regulation of GSX2. Mechanistically, binds and silences multiple conserved enhancer elements of GSX2. 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 |

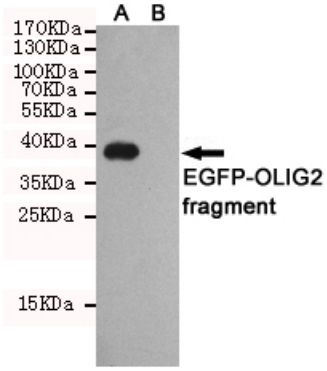
## Background

Required for oligodendrocyte and motor neuron specification in the spinal cord, as well as for the development of somatic motor neurons in the hindbrain. 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 (By similarity).

## References


Kuroda S.,et al.Submitted (FEB-1996) to the EMBL/GenBank/DDBJ databases.
Wang J.,et al.Proc. Natl. Acad. Sci. U.S.A. 97:3497-3502(2000).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Marie Y.,et al.Lancet 358:298-300(2001).
Lu Q.R.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:10851-10856(2001).


## Images




Western blot detection of OLIG2 in CHO-K1 cell lysate(B)and CHO-K1 transfected by EGFP-OLIG2 fragment(A)cell lysate using OLIG2 mouse mAb (1:1000 diluted).


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