



Rabbit Anti-OLIG2 antibody

SL11194R

Product Name:	OLIG2
Chinese Name:	少突胶质细胞转录因子2抗体
Alias:	Basic domain helix loop helix protein class B 1; Basic helix loop helix protein class B 1; 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; 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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	32kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human OLIG2:81-180/323
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

The oligodendrocyte lineage-specific basic helix-loop-helix (OLIG) family of transcription factors include OLIG1-OLIG3, which differ in tissue expression. OLIG1 and OLIG2 are specifically expressed in nervous tissue as gene regulators of oligodendrogenesis. OLIG2 is more widely expressed in embryonic brain than OLIG1, while OLIG3 is primarily expressed in non-neural tissues. OLIG1 and OLIG2 interact with the Nkx-2.2 homeodomain protein, which is responsible for directing ventral neuronal patterning in response to graded Sonic hedgehog signaling in the embryonic neural tube. These interactions between OLIG proteins and Nkx-2.2 appear to promote the formation of alternate cell types by inhibiting V3 interneuron development. OLIG1 and OLIG2 are abundantly expressed in oligodendroglioma and nearly absent in astrocytomas. Therefore, OLIG proteins are candidates for molecular markers of human glial brain tumors, which are the most common primary malignancies of the human brain.

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. 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.

Subunit:

Contains 1 basic helix-loop-helix (bHLH) domain.

Subcellular Location:

Nucleus. Cytoplasm. 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 Specificity:

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

DISEASE:

Note=A chromosomal aberration involving OLIG2 may be a cause of a form of T-cell acute lymphoblastic leukemia (T-ALL). Translocation t(14;21)(q11.2;q22) with TCRA.

Similarity:

Contains 1 bHLH (basic helix-loop-helix) domain.

SWISS:

Q13516

Gene ID:

10215

Product Detail:

Database links:

[Entrez Gene: 10215](#)Human

[Entrez Gene: 50913](#)Mouse

[Entrez Gene: 304103](#)Rat

[Omin: 606386](#)Human

[SwissProt: Q13516](#)Human

[SwissProt: Q9EQW6](#)Mouse

[Unigene: 176977](#)Human

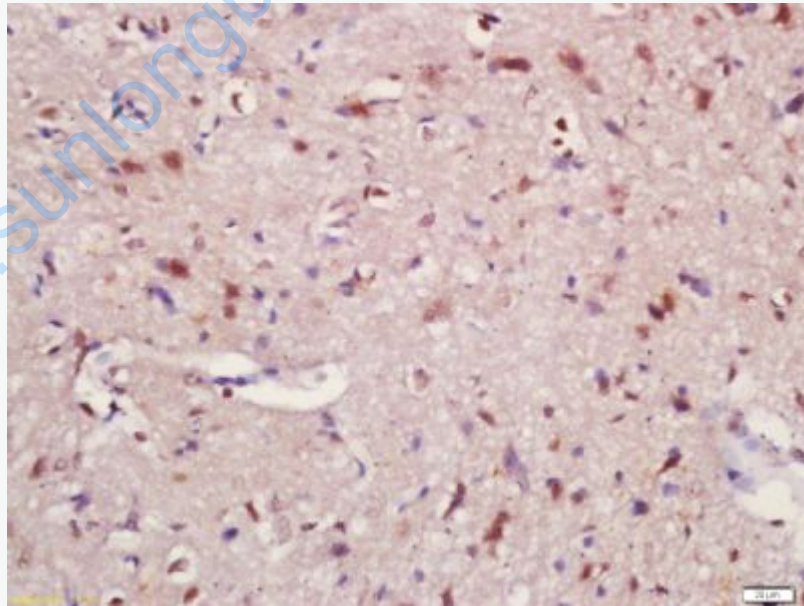
[Unigene: 37289](#)Mouse

[Unigene: 22121](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block
endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer

(normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-OLIG2 Polyclonal Antibody, Unconjugated(SL11194R) 1:200,
overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and
DAB(C-0010) staining

www.sunlongbiotech.com