

Anti-OLIG2 Antibody

Catalog Number: A02247-1

About OLIG2

The oligodendrocyte transcription factors 1 and 2 (OLIG1 and OLIG2, respectively) make up part of basic helix-loop-helix (bHLH) family of transcription factors that are specifically expressed in zones of the neuroepithelium from which oligodendrocyte precursors emerge (1). Both OLIG1 and OLIG2 genes are downstream targets of Sonic hedgehog and are expressed exclusively in the central nervous system (2). OLIG2 is first observed in the ventral most p3 progenitor domain of the ventral neural tube while OLIG1 is first expressed in the dorsal portion of the p3 domain (2). Mice overexpressing OLIG2 exhibit impaired potassium channel expression in neural progenitors and proliferation of these cells similar to that seen in Down Syndrome, suggesting that OLIG2 may play a role in this pathology (3).

Overview

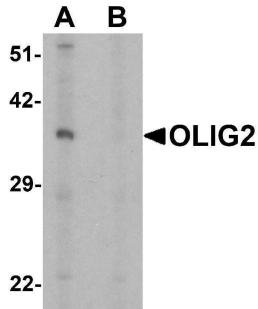
Product Name	Anti-OLIG2 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-OLIG2 Antibody (Catalog # A02247-1). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	OLIG2 Antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	OLIG2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Host	Rabbit
Uniprot ID	Q13516

Technical Details

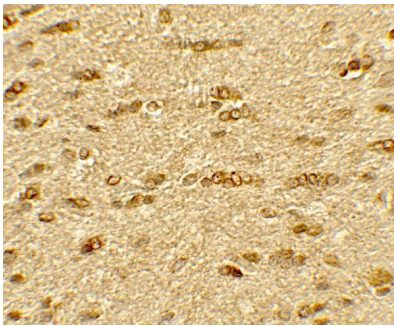
Immunogen	OLIG2 antibody was raised against a 15 amino acid peptide near the amino terminus of human OLIG2. The immunogen is located within amino acids 80 - 130 of OLIG2.
Predicted Reactive Species	Chicken
Cross Reactivity	OLIG2 antibody is human, mouse and rat reactive. It is predicted to not cross-react with other members of the OLIG family of proteins. At least three isoforms of OLIG2 are known to exist; this antibody will detect all three isoforms.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL

Purification	OLIG2 antibody is affinity chromatography purified via peptide column.
Suggested Dilutions	OLIG2 antibody can be used for detection of OLIG2 by Western blot at 1 - 2 ug/ml. Antibody can also be used for Immunohistochemistry at 5 ug/mL. For Immunofluorescence start at 20 ug/mL. Antibody validated: Western Blot in mouse samples; Immunohistochemistry in mouse and rat samples and Immunofluorescence in mouse and rat samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

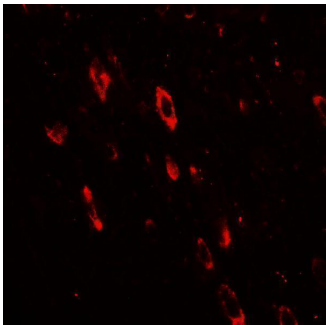
Anti-OLIG2 Antibody (A02247-1) Images



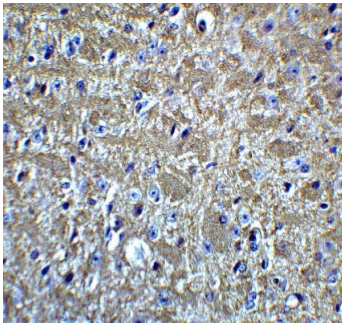
Western blot analysis of OLIG2 in EL4 cell lysate with OLIG2 antibody at 1 ug/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of OLIG2 in rat brain tissue with OLIG2 antibody at 5 ug/mL.

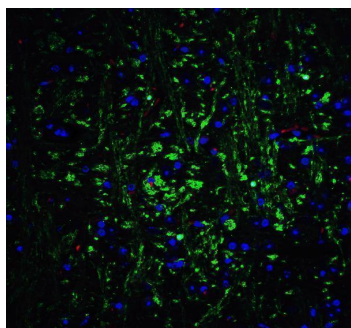


Immunofluorescence of OLIG2 in rat brain tissue with OLIG2 antibody at 20 ug/mL.



Immunohistochemistry of OLIG2 in mouse brain tissue with OLIG2 Antibody at 5 ug/mL.

Immunofluorescence of OLIG2 in mouse brain tissue with OLIG2 Antibody at 20 ug/mL. Green: OLIG2 antibody (A02247-1) Red: Phylloidin staining Blue: DAPI staining



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Anti-OLIG2 Antibody

For Research Use Only. Not for use in diagnostic procedures.