abcam

Product datasheet

Anti-Olig2 antibody ab56643

1 Abreviews 3 Images

Overview

Product name	Anti-Olig2 antibody
Description	Mouse monoclonal to Olig2
Tested applications	**Suitable for:** WB, IHC-P, Sandwich ELISA
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein: DSDASLVSSR PSSPEPDDLF LPARSKGSSG SAFTGGTVSS STPSDCPPEL SAELRGAMGS AGAHPGDKLG GSGFKSS, corresponding to amino acids 2-78 of Human Olig2 Run BLAST with ExPASy Run BLAST with NCBI
Positive control	Purchase matching WB positive control: **Recombinant Human Olig2 protein** ›

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: None PBS, pH 7.2
Purity	Protein G purified
Clonality	Monoclonal
Isotype	IgG2a
Light chain type	kappa

Applications

Our Abpromise guarantee covers the use of **ab56643** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 5 µg/ml. This antibody has only been tested in WB against the recombinant fragment used as immunogen. We have no data on the detection of endogenous protein.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Sandwich ELISA		Use a concentration of 5 µg/ml. For sandwich ELISA, use this antibody as Capture at 5 µg/ml with Rabbit polyclonal to Olig2 (ab77953)ab> as Detection.

Target

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.

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.

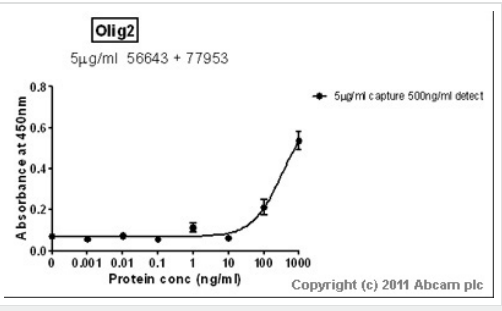
Involvement in disease
Note=A chromosomal aberration involving OLIG2 may be a cause of a form of T-cell acute lymphoblastic leukemia (T-ALL). Translocation t(14;21)(q11.2;q22) with TCRA.

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

Domain
The bHLH is essential for interaction with NKX2-2.

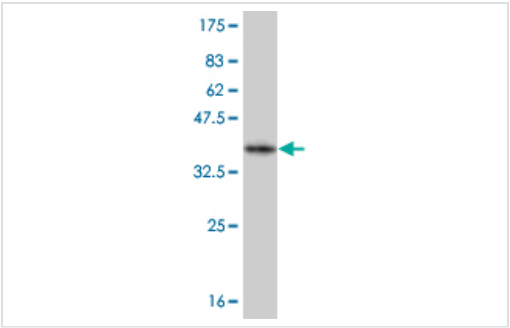
Cellular localization
Nucleus. Cytoplasm. The NLS contained in the bHLH domain could be masked in the native form and translocation to the nucleus could be mediated by interaction either with class E bHLH partner protein or with NKX2-2.

Images



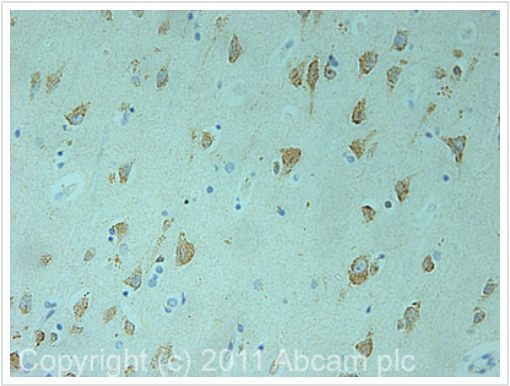
Sandwich ELISA - Olig2 antibody (ab56643)

Standard Curve for Olig2; dilution range 1 pg/ml to 1 ug/ml using Capture Antibody Mouse monoclonal to Olig2 (ab56643) at 5 ug/ml and Detector Antibody Rabbit polyclonal to Olig2 (ab77953) at 0.5 ug/ml.



Western blot - Olig2 antibody (ab56643)

Western blot against tagged recombinant protein immunogen using ab56643 Olig2 antibody at 1ug/ml. Predicted band size of immunogen is 35 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)-Olig2 antibody(ab56643)

IHC image of ab56643 staining in human normal cerebral cortex formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab56643, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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