10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

EMX1 Antibody

Catalog # ASC11415

Product Information

Application	WB, E
Primary Accession	Q04741
Other Accession	NP_004088, 94536800
Reactivity	Human, Mouse, Rat
Host	Chicken
Clonality	Polyclonal
Isotype	IgY
Calculated MW	31295
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	EMX1 antibody can be used for detection of EMX1 by Western blot at 1 □g/mL.

Additional Information

Gene ID	2016
Other Names	Homeobox protein EMX1, Empty spiracles homolog 1, Empty spiracles-like protein 1, EMX1
Target/Specificity	EMX1; At least two isoforms of EMX1 are known to exist; this antibody will detect the longer isoform. EMX1 antibody is predicted to not cross-react with other EMX family members.
Reconstitution & Storage	EMX1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	EMX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EMX1 (HGNC:3340)
Function	Transcription factor, which in cooperation with EMX2, acts to generate the boundary between the roof and archipallium in the developing brain. May function in combinations with OTX1/2 to specify cell fates in the developing central nervous system.
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108, ECO:0000269|PubMed:20887964}. Cytoplasm Note=Might be shuttling between the nucleus and the cytoplasm

Tissue Location Cerebral cortex.

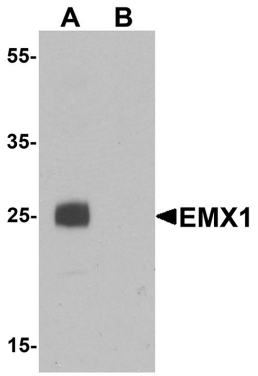
Background

EMX1 Antibody: EMX1 is a homeobox transcription factor involved in specifying cell fates in the developing central nervous system and it participates in the development of olfactory neurons. EMX1 is specifically expressed in the developing telencephalic cortex expression, where epxression is restricted to pyramidal neurons. EMX1 is a reliable marker of pyramidal neurons and pyramidal cell lineage. EMX1 has been shown to be one of the downstream target genes for Gli-Kruppel family member 3 (Gli3) transcription factor, which is a part of the Sonic hedgehog-Patched-Gli signaling pathway important in endocrine signaling.

References

Bishop KM, Garel S, Nakagawa Y, et al. Emx1 and Emx2 cooperate to regulate cortical size, lamination, neuronal differentiation, development of cortical efferents, and thalamocortical pathfinding. J. Comp. Neurol. 2003; 457:345-60.
Lichtneckert R, Nobs L, Reichert H. Empty spiracles is required for the development of olfactory projection neuron circuitry in Drosophila. Development 2008; 135:2415-24
Gulisano M, et al. Emx1 and Emx2 show different patterns of expression during proliferation and differentiation of the developing cerebral cortex in the mouse. Eur. J. Neurosci. 1996; 8:1037-50.
Chan CH, Godinho LN, Thomidou D, et al. 2001. Emx1 is a marker for pyramidal neurons of the cerebral cortex. Cereb. Cortex 11:1191-8.

Images



Western blot analysis of EMX1 in rat liver tissue lysate with EMX1 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.