10320 Camino Santa Fe, Suite G
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EMX2 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54541

Specification

EMX2 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q04743
Reactivity	**Rat, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**28 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human EMX2**
Epitope Specificity	**151-250/252**
Isotype	**IgG**
Purity	
affinity purified by Protein A	
Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Nucleus.**
SIMILARITY	**Belongs to the EMX homeobox family. Contains 1 homeobox DNA-binding domain.**
DISEASE	**Defects in EMX2 are the cause of schizencephaly (SCHZC) [MIM:269160]. Schizencephaly is an extremely rare human congenital disorder characterized by a full-thickness cleft within the cerebral hemispheres. These clefts are lined with gray matter and most commonly involve the parasylvian regions. Large portions of the cerebral hemispheres may be absent and replaced by cerebro-spinal fluid.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
Emx1 and Emx2 are human homologs to the Drosophila developmental genes empty spiracles expressed in anterior body regions during early Drosophila embryogenesis. Emx1 and Emx2 are homeobox proteins expressed in the developing vertebrate brain. Emx2 is expressed in the dorsal telencephalon and small diencephalic regions, while Emx1 expression is exclusively confined to pyramidal neurons of the dorsal telencephalon. In the embryonic brain, Emx1 is expressed in both proliferating and differentiating neurons while Emx2 is expressed only in proliferating neurons. OTX1 and OTX2 are human homologs of the Drosophila developmental genes orthodenticle. In development, the sequence of expression begins with OTX2 at day ten post coitum followed by OTX1, Emx2 and finally Emx1. The genes encoding human Emx1 and Emx2 map to chromosomes 2p13.2 and 10q26.11, respectively.

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EMX2 Polyclonal Antibody - Additional Information

Gene ID 2018

Other Names
Homeobox protein EMX2, Empty spiracles homolog 2, Empty spiracles-like protein 2, EMX2

Target/Specificity
Cerebral cortex.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. 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 ℃.

EMX2 Polyclonal Antibody - Protein Information

Name EMX2

Function
Transcription factor, which in cooperation with EMX1, acts to generate the boundary between the roof and archipallium in the developing brain. May function in combination with OTX1/2 to specify cell fates in the developing central nervous system. In the inner ear, it controls the distribution of GPR156 at hair cell boundaries, and regulates the organization of stereociliary bundles in opposite orientations across the line of polarity reversal (LPR).

Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q04744}. Cell projection, axon {ECO:0000250|UniProtKB:Q04744}. Note=Detected in axons within the olfactory mucosa and glomeruli in the olfactory bulb {ECO:0000250|UniProtKB:Q04744}

Tissue Location
Cerebral cortex.

EMX2 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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EMX2 Polyclonal Antibody - Images