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EMX2 Antibody
Catalog # ASC10523

Specification

EMX2 Antibody - Product Information

Application	**IHC**
Primary Accession	Q04743
Other Accession	Q04743, 19862512
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**28 kDa KDa**
Application Notes	**EMX2 antibody can be used for detection of EMX2 by immunohistochemistry at 5 µg/mL.**

EMX2 Antibody - Additional Information

Gene ID **2018**

Other Names
EMX2 Antibody: Homeobox protein EMX2, Empty spiracles homolog 2, empty spiracles homeobox 2

Target/Specificity
EMX2; At least two isoforms of EMX2 are known to exist; this antibody will detect both isoforms. EMX2 antibody is predicted to not cross-react with EMX1.

Reconstitution & Storage
EMX2 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
EMX2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

EMX2 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.

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}

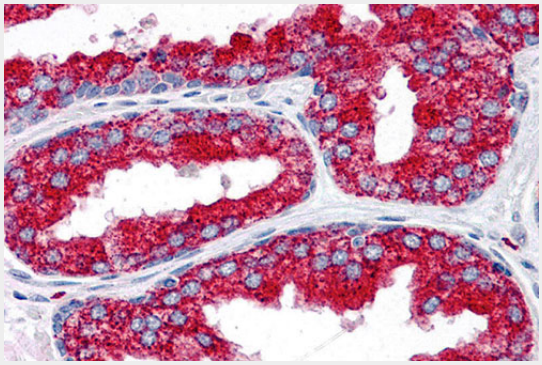
Tissue Location
Cerebral cortex.

EMX2 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

EMX2 Antibody - Images



Immunohistochemistry of EMX2 in human prostate tissue with EMX2 antibody at 5 µg/mL.

EMX2 Antibody - Background

EMX2 Antibody: EMX2, like its closely related homolog EMX1, is a homeobox transcription factor involved in specifying cell fates in the developing central nervous system and participates in the development of olfactory neurons. EMX2 is expressed in the dorsal telencephalon during development in a low rostral-lateral to high caudal-medial gradient and is proposed to pattern the neocortex into defined functional areas. It is also expressed in embryonic and adult olfactory neuroepithelia where it complexes with eukaryotic translation initiation factor 4E (eIF4E) and possibly regulates mRNA transport or translation. In the developing urogenital system, it is expressed in epithelial tissues and is negatively regulated by HOXA10.

EMX2 Antibody - 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. EMX2 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.

Nedelec S, Foucher I, Brunet I, et al. Emx2 homeodomain transcription factor interacts with eukaryotic translation initiation factor 4E (eIF4E) in the axons of olfactory sensory neurons. Proc. Natl. Acad. Sci. USA 2004; 101:10815-20.