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# EMX1 Antibody
**Catalog # ASC11415**

## Specification

### EMX1 Antibody - Product Information

| | |
|---|---|
| Application | **WB, E** |
| Primary Accession | Q04741 |
| Other Accession | NP_004088, 94536800 |
| Reactivity | **Human, Mouse, Rat** |
| Host | **Chicken** |
| Clonality | **Polyclonal** |
| Isotype | **IgY** |
| Application Notes | **EMX1 antibody can be used for detection of EMX1 by Western blot at 1 µg/mL.** |

### EMX1 Antibody - Additional Information

Gene ID **2016**

**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.

### EMX1 Antibody - 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.

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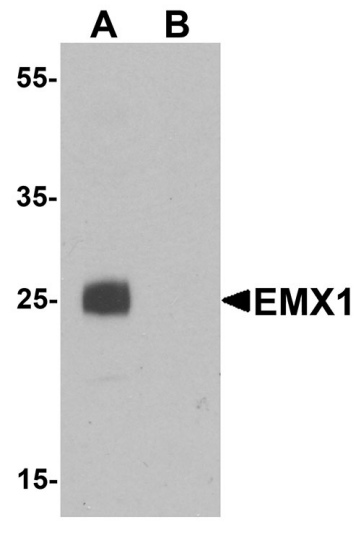
## EMX1 Antibody - Protocols

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

## EMX1 Antibody - 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.

## EMX1 Antibody - 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.

## EMX1 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. 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.