

**Datasheet for 600-401-CL6****LMX1A Antibody****Overview**

|                      |                                            |
|----------------------|--------------------------------------------|
| <b>Description:</b>  | Anti-LMX1A (RABBIT) Antibody - 600-401-CL6 |
| <b>Item No.:</b>     | 600-401-CL6                                |
| <b>Size:</b>         | 100 µg                                     |
| <b>Applications:</b> | ELISA, IF, IHC, WB                         |
| <b>Reactivity:</b>   | Human, Mouse, Rat                          |
| <b>Host Species:</b> | Rabbit                                     |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | The LIM homeobox transcription factor 1 (LMX1A) belongs to the LIM-homeodomain family. Members of this family are known to be important for pattern formation during development. LMX1A binds an A/T-rich sequence and functions in the nucleus as a transcriptional activator to the insulin gene promoter. In the developing embryo, LMX1A is expressed along the neuraxis and leads to the development of the roof plate of the vertebrae. While LMX1A is crucial for the differentiation of dopamine neurons, the related LMX1B appears to be important for both the development and the survival of these cells. It has been suggested that LMX1A might be a useful biomarker or risk factor in tumor aggressiveness. |
| <b>Synonyms:</b>     | LMX1A Antibody, LMX1, LMX1.1, LIM homeobox transcription factor 1-alpha                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

**Target Details**

|                        |                                                                                                                                                               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name:</b>      | LMX1A                                                                                                                                                         |
| <b>Reactivity:</b>     | Human, Mouse, Rat                                                                                                                                             |
| <b>Immunogen Type:</b> | Conjugated Peptide                                                                                                                                            |
| <b>Immunogen:</b>      | Anti- LMX1A antibody was prepared from whole rabbit serum produced by repeated immunizations with a 16 amino acid peptide near the C-terminus of human LMX1A. |

**Purity/Specificity:** Anti-LMX1A Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. At least two isoforms are known to exist. This antibody is predicted to not cross-react with LMX1B.

**Relevant Links:**

- [UniProtKB - Q8TE12](#)
- [GeneID - 4009](#)
- [NCBI - NP\\_796372](#)

## Application Details

**Tested Applications:** ELISA, IF, IHC, WB

**Application Note:** Anti-LMX1A Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 43 kDa in Western Blots of specific cell lysates and tissues.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:10,000 - 1:20,000

**IF:** 20 µg/mL

**IHC:** 2.5 µg/mL

**WB:** 1-2 µg/mL

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 1 mg/mL by UV absorbance at 280 nm

**Buffer:** 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

**Preservative:** 0.02% (w/v) Sodium Azide

**Stabilizer:** None

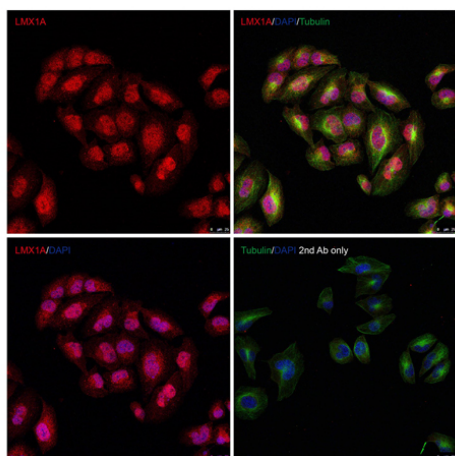
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



### Immunofluorescence Microscopy

Immunofluorescence of LMX1A.

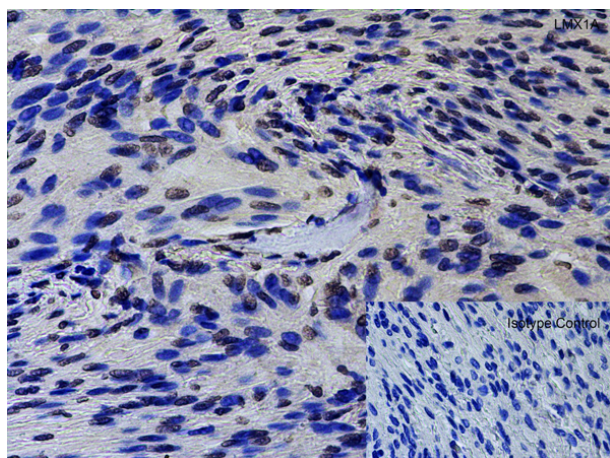
Cell: HeLa cells.

Fixation: methanol-fixed.

Primary Antibody: LMX1A at 10 µg/mL.

Secondary Antibody: goat anti-rabbit IgG secondary antibody at 1:1000. Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody.

Staining: LMX1A (red), Alpha tubulin (green), DAPI (blue). Images were captured with confocal microscopy.



### Immunohistochemistry

Immunohistochemistry of LMX1A.

Tissue: Human Brain Meningioma.

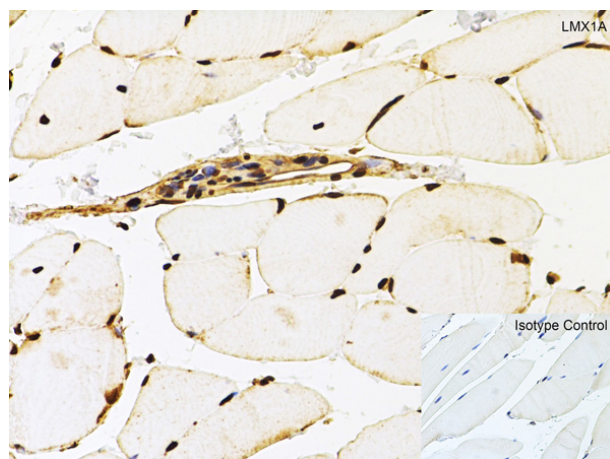
Fixation: paraffin-embedded fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-LMX1A antibody at 2 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250.

Counter stained with Hematoxylin.



### Immunohistochemistry

Immunohistochemistry of LMX1A.

Tissue: rat spleen tissue.

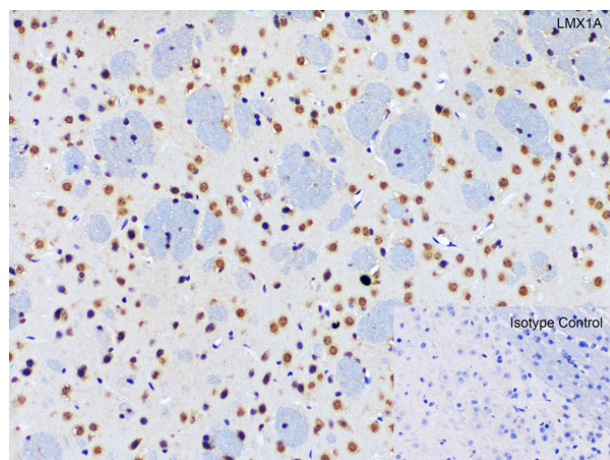
Fixation: paraffin-embedded fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-LMX1A antibody at 5 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250.

Counter stained with Hematoxylin.



### Immunohistochemistry

Immunohistochemistry of LMX1A.

Tissue: Mouse Brain Tissue.

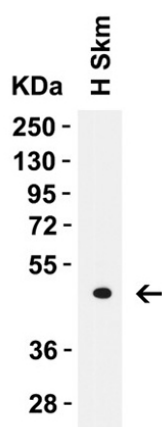
Fixation: paraffin-embedded fixed with formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-LMX1A antibody at 2 µg/ml overnight at 4°C.

Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1:250.

Counter stained with Hematoxylin.



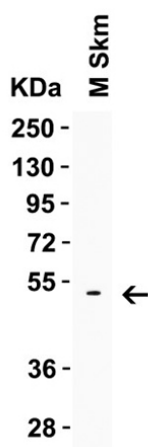
### Western Blot

Western Blot of LMX1A.

Load: 10 µg of Human Skeletal Muscle lysates.

Primary Antibody: LMX1A at 1 µg/mL for 1h incubation at RT in 5% NFDm/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



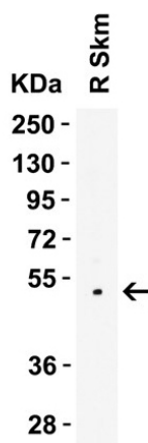
#### Western Blot

Western Blot of LMx1A.

Load: 10 µg of Mouse Skeletal Muscle lysates.

Primary Antibody: LMx1A at 1 µg/mL for 1h incubation at RT in 5% NFDM/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



#### Western Blot

Western Blot of LMx1A.

Load: 10 µg of Rat Skeletal Muscle lysates.

Primary Antibody: LMx1A at 1 µg/mL for 1h incubation at RT in 5% NFDM/TBST.

Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.

## Disclaimer

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