

#13457 Store at -20C

Lmx1B (D1E2) Rabbit mAb**Cell Signaling**
TECHNOLOGY®**Orders:** 877-616-CELL (2355)
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB	Reactivity: H	Sensitivity: Transfected Only	MW (kDa): 50	Source/Isotype: Rabbit IgG	UniProt ID: #O60663	Entrez-Gene Id: 4010
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Lmx1B (D1E2) Rabbit mAb recognizes transfected levels of total Lmx1B protein.

Species predicted to react based on 100% sequence homology:

Mouse, Rat

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Lmx1B protein.

Background

LIM homeobox transcription factor 1 β (Lmx1B) is a member of an evolutionarily conserved family of transcription factors that regulate developmental pattern formation in both vertebrates and invertebrates (1). Numerous developmental studies show that Lmx1B is required for vertebrate dorsoventral limb patterning, as well as normal glomerular basement membrane development and typical differentiation of central serotonergic neurons (2,3).

Mutations in the corresponding *Lmx1B* gene have been associated with nail-patella syndrome (NPS), an autosomal dominant disorder characterized by dysplasia of fingernails, skeletal anomalies and, frequently, renal disease (2). Abnormal developmental disorders such as developmental glaucoma and idiopathic Parkinson's disease have also been associated with Lmx1B function (4,5).

Background References

1. Hobert, O. and Westphal, H. (2000) *Trends Genet* 16, 75-83.
2. Dai, J.X. et al. (2009) *Dev Growth Differ* 51, 241-50.
3. Yan, C.H. et al. (2011) *J Neurosci* 31, 12413-25.
4. Gould, D.B. et al. (2004) *Int J Dev Biol* 48, 1015-29.
5. Ramsden, D.B. et al. (2001) *Mol Pathol* 54, 369-80.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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