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# Polyclonal Anti-PROX1 Antibody

Catalog Number: PA2229

## Description

| | |
|---|---|
| **Gene Name** | prospero homeobox 1 |
| **Recommended Protein Name** | Prospero homeobox protein 1 |
| **Lot No.** | 0221312c0329103 |
| **Size** | 100μg/vial |
| **Form** | lyophilized |
| **Ig type** | Rabbit IgG |
| **Specificity** | No cross reactivity with other proteins. |
| **Purification** | Immunogen affinity purified. |
| **Species** | **Reacts with:** human, rat<br>**Predicted to work with**: mouse |
| **Immunogen** | A synthetic peptide corresponding to a sequence in the middle region of human PROX1(346-359aa KHLAETLKQELNTA), identical to the related mouse and rat sequences. |
| **Contents** | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg $Na_2HPO_4$, 0.05mg Thimerosal, 0.05mg $NaN_3$. |

## Application

| | Concentration | Tested Species | Predicted Species | Antigen Retrieval |
|---|---|---|---|---|
| Western blot | 0.1-0.5μg/ml | Hu, Rat | Ms | - |

**Tested Species:** In-house tested species with positive results.

**Predicted Species:** Species predicted to be fit for the product based on sequence similarities.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end users.*

## Preparation and storage

**Reconstitution:** 0.2ml of distilled water will yield a concentration of 500μg/ml.

**Storage:** At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for a longer time.
Avoid repeated freezing and thawing.

## Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

## Background

Prospero homeobox protein 1, also called PROX1 is a protein that in humans is encoded by the PROX1 gene. This gene is mapped to 1q32.3. The protein encoded by this gene is a member of the homeobox transcription factor family. Members of this family contain a homeobox domain that consists of a 60-amino acid helix-turn-helix structure that binds DNA and RNA. The protein encoded by this gene is conserved across vertebrates and may play an essential role during development. Altered levels of this protein have been reported in cancers of different organs, such as colon, brain, blood, breast, pancreas, liver and esophagus.

**Reference**


1. Dyer, M. A., Livesey, F. J., Cepko, C. L., Oliver, G. Prox1 function controls progenitor cell proliferation and horizontal cell genesis in the mammalian retina. Nature Genet. 34: 53-58, 2003.
2. Harvey, N. L., Srinivasan, R. S., Dillard, M. E., Johnson, N. C., Witte, M. H., Boyd, K., Sleeman, M. W., Oliver, G. Lymphatic vascular defects promoted by Prox1 haploinsufficiency cause adult-onset obesity. Nature Genet. 37: 1072-1081, 2005.
3. Kazenwadel, J., Michael, M. Z., Harvey, N. L. Prox1 expression is negatively regulated by miR-181 in endothelial cells. Blood 116: 2395-2401, 2010.