

PITX3 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP6969a**Specification**

PITX3 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O75364](#)**PITX3 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 5309**Other Names**

Pituitary homeobox 3, Homeobox protein PITX3, Paired-like homeodomain transcription factor 3, PITX3, PTX3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6969a](/products/AP6969a) was selected from the N-term region of human PITX3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PITX3 Antibody (N-term) Blocking Peptide - Protein Information**Name** PITX3**Synonyms** PTX3**Function**

Transcriptional regulator which is important for the differentiation and maintenance of meso-diencephalic dopaminergic (mdDA) neurons during development. In addition to its importance during development, it also has roles in the long-term survival and maintenance of the mdDA neurons. Activates NR4A2/NURR1-mediated transcription of genes such as SLC6A3, SLC18A2, TH and DRD2 which are essential for development of mdDA neurons. Acts by decreasing the interaction of NR4A2/NURR1 with the corepressor NCOR2/SMRT which acts through histone deacetylases (HDACs) to keep promoters of NR4A2/NURR1 target genes in a repressed deacetylated state. Essential for the normal lens development and differentiation. Plays a critical role in the maintenance of mitotic activity of lens epithelial cells, fiber cell differentiation and in

the control of the temporal and spatial activation of fiber cell-specific crystallins. Positively regulates FOXE3 expression and negatively regulates PROX1 in the anterior lens epithelium, preventing activation of CDKN1B/P27Kip1 and CDKN1C/P57Kip2 and thus maintains lens epithelial cells in cell cycle (By similarity).

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108, ECO:0000255|PROSITE-ProRule:PRU00138}

Tissue Location

Highly expressed in developing eye lens.

PITX3 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

PITX3 Antibody (N-term) Blocking Peptide - Images**PITX3 Antibody (N-term) Blocking Peptide - Background**

PITX3 is a member of the RIEG/PITX homeobox family, which is in the bicoid class of homeodomain proteins. Members of this family act as transcription factors. This protein is involved in lens formation during eye development.

PITX3 Antibody (N-term) Blocking Peptide - References

Martinat,C., et.al., Proc. Natl. Acad. Sci. U.S.A. 103 (8), 2874-2879 (2006)Finzi,S., et.al., Ophthalmic Genet. 26 (3), 125-130 (2005)