

Recombinant Mouse PITX3 Protein (1-302 aa), GST-tagged

Cat. No. PITX3-720M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse PITX3 Protein (1-302 aa) is produced by E. coli expression system. This protein is fused with a GST tag at the N-terminal. Protein Description: Full Length.
Species	Mouse
Source	E.coli
ProteinLength	1-302 aa
Description	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.

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Form	Tris-based buffer, 50% glycerol
Molecular Mass	58.7 kDa
AA Sequence	MEFGLLGAEARSPALSLSDAGTPHPPLPEHGCKGQEHS DSEKASASLPGGSPED GSLKKKQRRQRTHFTSQQLQELEATFQRNRYPD MSTREEIAVWTNLTEARVRVWF KNRRAKWRKRERSQQAELCKGGFAAPLGGLVPPYEEVYPGYSYGNWPPKALAPPL AAKTFPFAFNSVNVGPLASQPVFSPSSIAASMVPSAAAAPGTVPGPGALQGLGGA PPGLAPAAVSSGAVSCPYASAAAAAASSPYVYRDPCNSSLASRLKAKQHASF SYPAVPGPPPAANLSPCQYAVERP V
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA with concentration instruction is sent along with the products.

GENE INFORMATION

Gene Name	Pitx3 paired-like homeodomain transcription factor 3 [Mus musculus]
Official Symbol	PITX3
Synonyms	PITX3; aphakia; ak; Ptx3;

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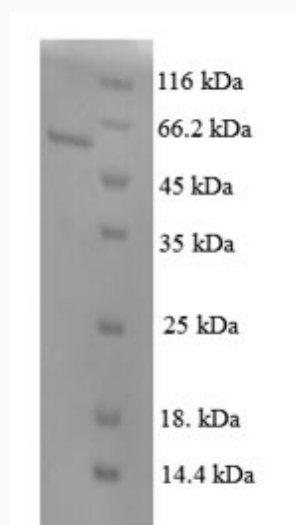
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Gene ID 18742

mRNA Refseq NM_008852

Protein Refseq NP_032878

UniProt ID O35160



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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