



# Recombinant Mouse Pituitary homeobox 3 (Pitx3)

<b>Product Code</b>	CSB-EP018044MO
<b>Relevance</b>	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.
<b>Abbreviation</b>	Recombinant Mouse Pitx3 protein
<b>Storage</b>	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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	O35160
<b>Alias</b>	Homeobox protein PITX3;Paired-like homeodomain transcription factor 3
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Mus musculus (Mouse)
<b>Purity</b>	≥ 90% as determined by SDS-PAGE.
<b>Sequence</b>	MEFGLLGAEARSPALSLSDAGTPHPPLPEHGCKGQEHSDSEKASASLPGGS PEDGSLKKKQRRQRTHFTSQQLQELEATFQRNRYPDMSTREEIAVWTNLTEA RVRVWFKNRRRAKWRKRERSQQAELCKGGFAAPLGGLVPPYEEVYPGYSYGN WPPKALAPPLAAKTFPFAFNSVNVGPLASQPVFSPSSIAASMVPSAAAAPGT VPGPGALQGLGGAPPGLAPAAVSSGAVSCPYASAAAAAAAASSPYVYRDPC NSSLASLRLKAKQHASFYPAVPGPPPAANLSPCQYAVERPV
<b>Research Area</b>	Others
<b>Source</b>	E.coli
<b>Target Names</b>	Pitx3
<b>Expression Region</b>	1-302aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

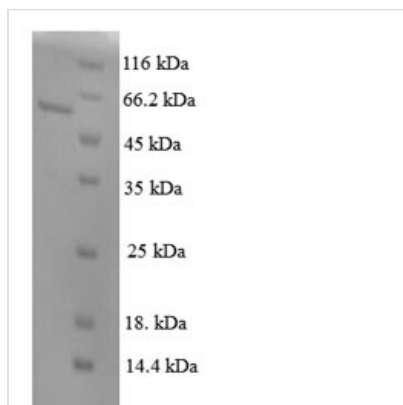


**Tag Info** N-terminal GST-tagged

**Mol. Weight** 58.7kDa

**Protein Length** Full Length

**Image**



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

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life**

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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.