

# Recombinant Mouse PO5F1 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP51306

Size: 10ug, 100ug

Protein Name: POU domain, class 5, transcription factor 1 (NF-A3) (Octamer-binding protein 3) (Oct-3) (Octamer-binding protein 4) (Oct-4) (Octamer-binding transcription factor 3) (OTF-3)

Synonym: Pou5f1, Oct-3, Oct-4, Otf-3, Otf3

UniProt ID: P20263

UniProt Link: [www.uniprot.org/uniprotkb/P20263/entry](http://www.uniprot.org/uniprotkb/P20263/entry)

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 352 AA

Molecular Weight: 38 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MAGHLASDFAFSPPPGGGDGSAGLEPGWVDPRTWLSFQGPPGGPGIGPGSEVLGISPCPPAYEFC  
GGMAYCGPQVGLGLVPQVGVELQPEGQAGARVESNSEGTSSEPCADRPNAVKLEKVEPTPEES  
QDMKALQKELEQFAKLLKQKRITLGYTQADVGLTLGVLFQKVFSSQTTICRFEALQLSLKNMCKLRPLL  
EKWVEEADNNENLQEICKSETLVQARKRKRTSIENRVRWSLETMFLKCPKPSLQQITHIANQLGLEK  
DVVRVWFCNRRQKGKRSSIEYSQREEYEATGTPFPGGAVSFPLPPGPHFGTPGYGSPHFTTLYSVP  
FPEGEAFPSVPVTALGSPMHSN

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant POU domain, class 5, transcription factor 1 (NF-A3) (Octamer-binding protein 3) (Oct-3) (Octamer-binding protein 4) (Oct-4) (Octamer-binding transcription factor 3) (OTF-3) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Transcription factor that binds to the octamer motif (5'-ATTTGCAT-3') (PubMed:1690859, PubMed:17525163, PubMed:1967980, PubMed:1972777, PubMed:23376973). Forms a trimeric complex with SOX2 or SOX15 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206 (PubMed:15863505, PubMed:17097055, PubMed:17496161, PubMed:19740739). Critical for early embryogenesis and for embryonic stem cell pluripotency (PubMed:1690859, PubMed:17496161, PubMed:18662995, PubMed:18687992, PubMed:1972777, PubMed:19740739, PubMed:23376973, PubMed:29153991, PubMed:32703285).

**Subcellular Localization:** Cytoplasm . Nucleus . Note=Expressed in a diffuse and slightly punctuate pattern (By similarity). Colocalizes with MAPK8 and MAPK9 in the nucleus (PubMed:29153991).

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.