

Product datasheet for **TP311998M**

Oct4 (POU5F1) (NM_002701) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins
Description: Recombinant protein of human POU class 5 homeobox 1 (POU5F1), transcript variant 1, 100 µg
Species: Human
Expression Host: HEK293T
Expression cDNA >RC211998 representing NM_002701
Clone or AA Sequence: **Red**=Cloning site **Green**=Tags(s)

MAGHLASDFAFSPPPGGGGDGPGGPEPGWVDPRTWLSFQGGPPGGPGIGPGVGPGESEVWGIPPCPPPYEFC
GGMAYCGPQVGVGLVPQGGLETSQPEGEAGVGVESNSDGASPEPCTVTPGAVKLEKEKLEQNPEESQDIK
ALQKELEQFAKLLKQKRITLGYTQADVGLTLGVLFGKVFSTTICRFEALQLSFKNMCKLRPLLQKWVEE
ADNNENLQEICKAETLVQARKRKRSTIENRVRGNLENLFLQCPKPTLQQISHIAQQLGLEKDVVRVWFCN
RRQKGRSSSDYAQREDFEAAGSPFSGGPVSFPLAPGPHFGTPGYGSPHFTALYSSVPFPEGEAFPPVSV
TTLGSPMHSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK
Predicted MW: 38.4 kDa
Concentration: >0.05 µg/µL as determined by microplate BCA method
Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Bioactivity: EMSA assay (PMID: [25892221](https://pubmed.ncbi.nlm.nih.gov/25892221/))
Preparation: Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage: Store at -80°C.
Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq: [NP_002692](https://ncbi.nlm.nih.gov/RefSeq/ accession/NP_002692)



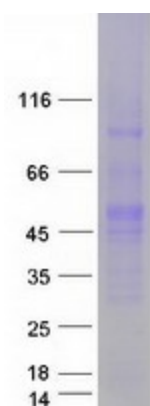
[View online »](#)

Locus ID: 5460
UniProt ID: [Q01860](#), [D2IYK3](#)
RefSeq Size: 1417
Cytogenetics: 6p21.33
RefSeq ORF: 1080
Synonyms: Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4

Summary: This gene encodes a transcription factor containing a POU homeodomain that plays a key role in embryonic development and stem cell pluripotency. Aberrant expression of this gene in adult tissues is associated with tumorigenesis. This gene can participate in a translocation with the Ewing's sarcoma gene on chromosome 21, which also leads to tumor formation. Alternative splicing, as well as usage of alternative AUG and non-AUG translation initiation codons, results in multiple isoforms. One of the AUG start codons is polymorphic in human populations. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12. [provided by RefSeq, Oct 2013]

Protein Families: Adult stem cells, Cancer stem cells, Embryonic stem cells, Induced pluripotent stem cells, Stem cell - Pluripotency, Transcription Factors

Product images:



Coomassie blue staining of purified POU5F1 protein (Cat# [TP311998]). The protein was produced from HEK293T cells transfected with POU5F1 cDNA clone (Cat# [RC211998]) using MegaTran 2.0 (Cat# [TT210002]).