

## Product datasheet for PH311998

### Oct4 (POU5F1) (NM\_002701) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	POU5F1 MS Standard C13 and N15-labeled recombinant protein (NP_002692)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC211998
Predicted MW:	38.4 kDa
Protein Sequence:	>RC211998 representing NM_002701 Red=Cloning site Green=Tags(s)  MAGHLASDFAFSPPPGGGGDGGPGEPEGWDPRTWLSFQGGPGGPGIGPGVGPSEVWGIPPCPPPYEFC GGMAYCGPQVGVGLVPQGGLETSQPEGEAGVGVESNSDASPEPCTVTPGAVKLEKEKLEQNPEESQDIK ALQKELEQFAKLLKQKRITLGYTQADVGLTLGVLFGKVFSTTTICRFEALQLSFKNMCKLRPLLQKWVEE ADNNENLQEICKAETLVQARKRKRTSIENRVRGNLENLFLQCPKPTLQQISHIAQQLGLEKDVVRVWFCN RRQKGRSSSDYAQREDFEAAGSPFSGGPVSFPLAPGPHFGTPGYGSPHFTALYSSVPFPEGEAFPPVSV TTLGSPMHSN  TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_002692</a>
RefSeq Size:	1417
RefSeq ORF:	1080
Synonyms:	Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4
Locus ID:	5460



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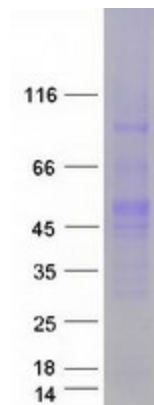
UniProt ID: [Q01860](#), [D2IYK3](#)

Cytogenetics: 6p21.33

**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]).