

## Product datasheet for **TA306913**

### Oct4 (POU5F1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1 ug/mL, ICC: 5 ug/mL
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	POU5F1 antibody was raised against a 14 amino acid peptide near the carboxy terminus of human POU5F1.
Formulation:	PBS containing 0.02% sodium azide.
Concentration:	1ug/ul
Purification:	Affinity chromatography purified via peptide column
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	POU class 5 homeobox 1
Database Link:	<a href="#">NP_002692</a> <a href="#">Entrez Gene 18999 Mouse</a> <a href="#">Entrez Gene 294562 Rat</a> <a href="#">Entrez Gene 5460 Human</a> <a href="#">Q01860</a>



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**Background:**

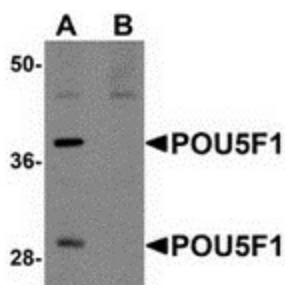
POU5F1, also commonly known as Oct-4, is a maternally expressed octamer-binding protein that was the first transcription factor described for the early stages of development. The role of POU5F1 in embryonic development suggested that it might be useful in the creation of stem cells that might be useful in cell replacement therapies in the treatment of several degenerative diseases. Artificial stem cells, termed induced pluripotent stem (iPS) cells, can be created by expressing POU5F1 and the transcription factors Sox2, Klf4 and Lin28 along with c-Myc in mouse fibroblasts. More recently, experiments have demonstrated that iPS cells could be generated using expression plasmids expressing POU5F1, Sox2, Klf4 and c-Myc, eliminating the need for virus introduction, thereby addressing a safety concern for potential use of iPS cells in regenerative medicine.

**Synonyms:**

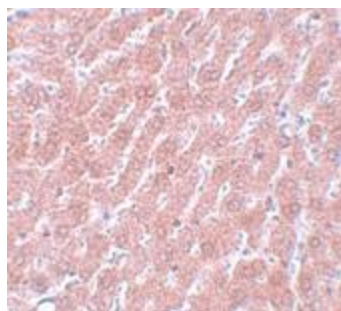
Oct-3; Oct-4; OCT3; OCT4; OTF-3; OTF3; OTF4

**Protein Families:**

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

**Product images:**

Western blot analysis of POU5F1 in mouse liver tissue lysate with POU5F1 antibody at 1 ug/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of POU5F1 in rat liver tissue with POU5F1 antibody at 5 ug/mL.