

Product datasheet for **AM10125SU-N**

Oct4 (POU5F1) Mouse Monoclonal Antibody [Clone ID: C-10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	C-10
Applications:	IHC
Recommended Dilution:	Immunohistochemistry on Formalin-Fixed, Paraffin-Embedded Sections: 1/50-1/100 Pretreatment of deparaffinized tissue with heat-induced epitope retrieval is recommended. Use Polymer anti Mouse/Rabbit IgG as a detection system. <i>Positive Control:</i> Seminoma.
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Amino acids 1-134 of Oct-4 of Human origin.
Specificity:	Oct-3/4 (C-10) is recommended for detection of Oct-3A (Oct-4) and Oct-3B of Mouse, Rat and Human origin by Western Blotting, Immunoprecipitation, Immunofluorescence, and Immunohistochemistry on Paraffin. Cellular Localization: Nuclear.
Formulation:	State: Purified State: Tris-HCl buffer containing stabilizing protein and 0.09 % sodium azide.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Gene Name:	POU class 5 homeobox 1
Database Link:	Entrez Gene 18039 Mouse Entrez Gene 83613 Rat Entrez Gene 5460 Human Q01860



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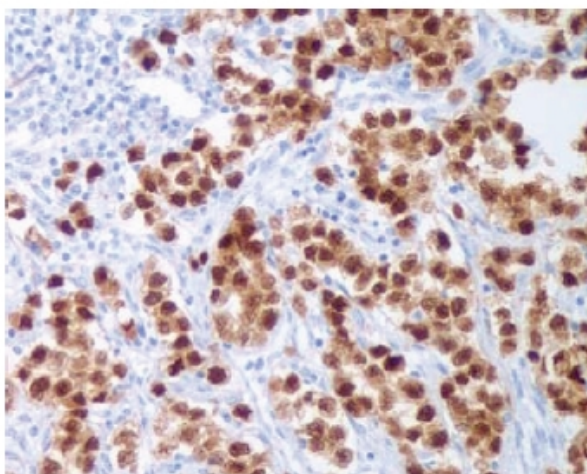
Background: Transcription factors containing the POU homeo domain have been shown to be important regulators of tissue-specific gene expression in lymphoid and pituitary differentiation and in early mammalian development. POU domain proteins contain a bipartite DNA-binding domain divided by a flexible linker that enables them to adopt various monomer configurations on DNA. The versatility of POU protein operation is additionally conferred at the dimerization level. Oct-3 (also known as Oct-4) is a mammalian POU transcription factor expressed by early embryo cells and germ cells. Oct-3/4 is essential for the identity of the pluripotential founder cell population in the mammalian embryo. A critical amount of Oct-3/4 is required to sustain stem-cell self renewal, and up or down regulation induce divergent developmental programmes. Two isoforms of Oct-3, termed Oct-3A and Oct-3B, are generated by alternative splicing. The gene which encodes Oct-3/4 maps to human chromosome 6p21.3.

Synonyms: POU5F1, OCT3, OCT4, OTF3, POU domain, class 5, transcription factor 1, Octamer-binding transcription factor 3, Oct-3, Oct-4

Protein Families: Druggable Genome, ES Cell Differentiation/IPS

Protein Pathways: Amyotrophic lateral sclerosis (ALS)

Product images:



Formalin-Fixed, Paraffin-Embedded Human Seminoma stained with OCT-4 antibody Cat.-No. AM10125SU-N using peroxidase conjugate and DAB chromogen. Note the nuclear staining of seminoma cells.