

Product datasheet for **AP06256PU-N**

Oct4 (POU5F1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on paraffin sections 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 200-250 of Human Oct-3/4.
Specificity:	The antibody detects endogenous levels of OCT3/4 protein. (region surrounding Lys222)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity-chromatography using epitope-specific immunogen. The purity is > 95% (by SDS-PAGE).
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 38 kDa
Gene Name:	POU class 5 homeobox 1
Database Link:	Entrez Gene 18999 Mouse Entrez Gene 294562 Rat Entrez Gene 5460 Human Q01860



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Background:

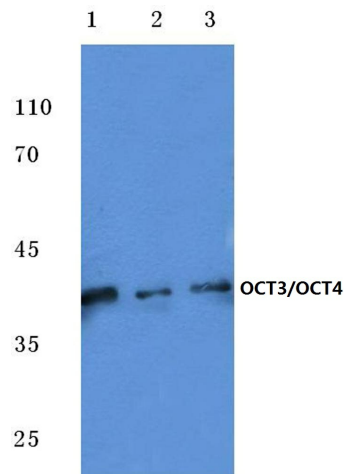
Organic cation transporters (OCT) are expressed in the plasma membrane of epithelial cells from a wide range of tissues, where they function in the elimination of endogenous amines, cationic drugs and other xenobiotics. The structure of OCTs consists of a 12-transmembrane-domain structure and a large extracellular hydrophilic loop. In humans, OCT1 is primarily expressed in the liver while OCT2 is expressed in the kidney. OCT3 is expressed in the placenta, skeletal muscle, prostate, aorta and liver. OCT3, also known as extraneuronal monoamine transporter, is widely expressed in different regions of the brain including the hippocampus, cerebellum and cerebral cortex. OCT3 mediates the uptake of several neuroactive agents, including dopamine, and may play an important role in the disposition of neurotransmitters and cationic neurotoxins in the brain. The genes encoding human OCT1–3 map to a conserved cluster at chromosome 6q26-q27.

Synonyms:

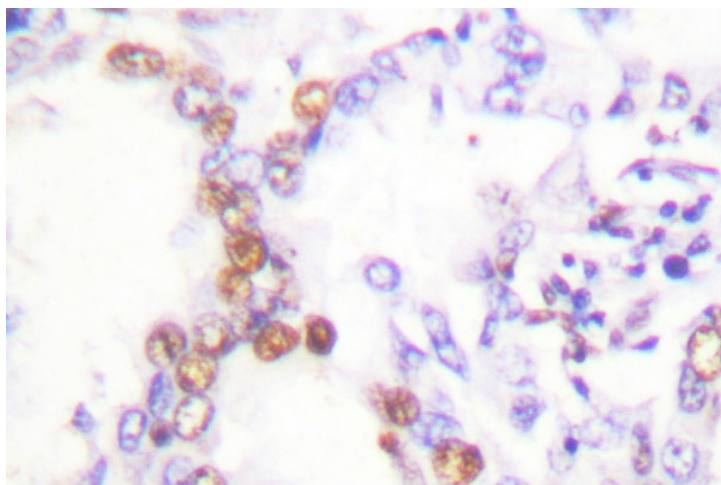
POU5F1, OCT3, OCT4, OTF3, POU domain, class 5, transcription factor 1, Octamer-binding transcription factor 3, Oct-3, Oct-4

Protein Families:

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

Product images:

Western blot (WB) analysis of Oct-3/4 antibody at 1/500 dilution Lane 1: Hela whole cell lysate Lane 2: Mouse brain tissue lysate Lane 3: Rat brain tissue lysate



Immunohistochemistry (IHC) analyzes of OCT3/4 antibody in paraffin-embedded human lung carcinoma tissue