10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

OCT3/4 Antibody Blocking peptide
Synthetic peptide
Catalog # BP2046d

Specification

OCT3/4 Antibody Blocking peptide - Product Information

Primary Accession Q01860

OCT3/4 Antibody Blocking peptide - Additional Information

Gene ID 5460

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2046d was selected from the S136 region of human OCT3/4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

OCT3/4 Antibody Blocking peptide - Protein Information

Name POU5F1

Synonyms OCT3, OCT4, OTF3

Function
Transcription factor that binds to the octamer motif (5'- ATTTGCAT-3'). Forms a trimeric complex with SOX2 or SOX15 on DNA and controls the expression of a number of genes involved in embryonic development such as YES1, FGF4, UTF1 and ZFP206. Critical for early embryogenesis and for embryonic stem cell pluripotency.

Cellular Location
Cytoplasm. Nucleus. Note=Expressed in a diffuse and slightly punctuate pattern. Colocalizes with MAPK8 and MAPK9 in the nucleus. {ECO:0000250|UniProtKB:P20263, ECO:0000269|PubMed:18191611, ECO:0000269|PubMed:19274063,

ECO:0000269|PubMed:23024368}

Tissue Location
Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues.

OCT3/4 Antibody Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

OCT3/4 Antibody Blocking peptide - Images

OCT3/4 Antibody Blocking peptide - Background

Transcription factors containing the POU homeodomain have been shown to be important regulators of tissue-specific gene expression in lymphoid and pituitary differentiation and in early mammalian development. Two forms of OCT3 mRNA are expressed in adult tissues as a result of alternative splicing--OCT3A and OCT3B. Reverse transcriptase PCR showed low level of expression in both OCT3A and OCT3B mRNA in all adult human tissues examined. Oct3 is present in mouse oocytes before and after fertilization. When fertilized oocytes were injected with antisense Oct3 oligonucleotides or double-stranded DNA containing the octamer motif, embryonic DNA synthesis was inhibited and the embryos were arrested at the one-cell stage.

OCT3/4 Antibody Blocking peptide - References

Looijenga, L.H., et al., Cancer Res. 63(9):2244-2250 (2003).Remenyi, A., et al., Genes Dev. 17(16):2048-2059 (2003).Nichols, J., et al., Cell 95(3):379-391 (1998).Crouau-Roy, B., et al., Genomics 21(1):241-243 (1994).Takeda, J., et al., Nucleic Acids Res. 20(17):4613-4620 (1992).