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POU4F2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14993b

Specification

POU4F2 Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q12837
Other Accession	Q63934, NP_004566.2, G3V7L5
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**43087**
Antigen Region	**311-339**

POU4F2 Antibody (C-term) - Additional Information

Gene ID 5458

Other Names
POU domain, class 4, transcription factor 2, Brain-specific homeobox/POU domain protein 3B, Brain-3B, Brn-3B, POU4F2, BRN3B

Target/Specificity
This POU4F2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 311-339 amino acids from the C-terminal region of human POU4F2.

Dilution
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
POU4F2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

POU4F2 Antibody (C-term) - Protein Information

Name POU4F2 (HGNC:9219)

Synonyms BRN3B

Function Tissue-specific DNA-binding transcription factor involved in the development and differentiation of target cells (PubMed:19266028, PubMed:23805044). Functions either as activator or repressor modulating the rate of target gene transcription through RNA polymerase II enzyme in a promoter-dependent manner (PubMed:19266028, PubMed:23805044). Binds to the consensus octamer motif 5'-AT[A/T]A[T/A]T[A/T]A-3' of promoter of target genes. Plays a fundamental role in the gene regulatory network essential for retinal ganglion cell (RGC) differentiation. Binds to an octamer site to form a ternary complex with ISL1; cooperates positively with ISL1 and ISL2 to potentiate transcriptional activation of RGC target genes being involved in RGC fate commitment in the developing retina and RGC axon formation and pathfinding. Inhibits DLX1 and DLX2 transcriptional activities preventing DLX1- and DLX2-mediated ability to promote amacrine cell fate specification. In cooperation with TP53 potentiates transcriptional activation of BAX promoter activity increasing neuronal cell apoptosis. Negatively regulates BAX promoter activity in the absence of TP53. Acts as a transcriptional coactivator via its interaction with the transcription factor ESR1 by enhancing its effect on estrogen response element (ERE)-containing promoter. Antagonizes the transcriptional stimulatory activity of POU4F1 by preventing its binding to an octamer motif. Involved in TNFSF11-mediated terminal osteoclast differentiation (By similarity).

Cellular Location
Nucleus. Nucleus speckle. Cytoplasm {ECO:0000250|UniProtKB:Q63934}

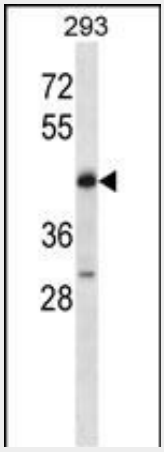
Tissue Location
Expressed in the brain (PubMed:7691107). Expressed in the ganglion cell layer of the retina (PubMed:7691107)

POU4F2 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

POU4F2 Antibody (C-term) - Images



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POU4F2 Antibody (C-term) (Cat. #AP14993b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the POU4F2 antibody detected the POU4F2 protein (arrow).

POU4F2 Antibody (C-term) - Background

POU4F2 is a member of the POU-domain family of transcription factors. POU-domain proteins have been observed to play important roles in control of cell identity in several systems. A class IV POU-domain protein, POU4F2 is found in human retina exclusively within a subpopulation of ganglion cells where it may play a role in determining or maintaining the identities of a small subset of visual system neurons.

POU4F2 Antibody (C-term) - References

Qiu, F., et al. J. Neurosci. 28(13):3392-3403(2008)
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Choy, K.W., et al. Physiol. Genomics 25(1):9-15(2006)
Samady, L., et al. Int. J. Cancer 118(4):869-878(2006)