

**POU4F2 Antibody (internal region)**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF3201a****Specification**

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**POU4F2 Antibody (internal region) - Product Information**

Application	E
Primary Accession	<a href="#">Q12837</a>
Other Accession	<a href="#">NP_004566.2</a> , <a href="#">5458</a>
Predicted	Human, Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	43087

**POU4F2 Antibody (internal region) - 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

**Dilution**

E~~N/A

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

POU4F2 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**POU4F2 Antibody (internal region) - 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:&lt;a href="http://www.uniprot.org/citations/19266028"&gt;

target="\_blank">19266028</a>, PubMed:<a href="http://www.uniprot.org/citations/23805044" target="\_blank">23805044</a>). Functions either as activator or repressor modulating the rate of target gene transcription through RNA polymerase II enzyme in a promoter-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/19266028" target="\_blank">19266028</a>, PubMed:<a href="http://www.uniprot.org/citations/23805044" target="\_blank">23805044</a>). 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 (internal region) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**POU4F2 Antibody (internal region) - Images****POU4F2 Antibody (internal region) - Background**

This antibody is not expected to cross-react to the similar POU4F3 (GeneID 5459)

**POU4F2 Antibody (internal region) - References**

A comprehensive negative regulatory program controlled by Brn3b to ensure ganglion cell specification from multipotential retinal precursors. Qiu F, Jiang H, Xiang M, The Journal of neuroscience : the official journal of the Society for Neuroscience 2008 Mar 28 (13): 3392-403. PMID: 18367606