

**POU2F3 Antibody**  
**Catalog # ASC11800****Specification****POU2F3 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q9UKI9</a>
Other Accession	<a href="#">NP_001231611</a> , <a href="#">347658964</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 48 kDa

Application Notes	<b>Observed: 55 kDa</b> POU2F3 antibody can be used for detection of POU2F3 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunofluorescence start at 20 µg/mL.
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**POU2F3 Antibody - Additional Information**

Gene ID **25833**

**Target/Specificity**

POU2F3; POU2F3 antibody is human, mouse and rat reactive. At least two isoforms are known to exist. This antibody will recognize both isoforms. POU2F3 antibody is predicted to not cross-react with other members of the POU domain class 2 family.

**Reconstitution & Storage**

POU2F3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

POU2F3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**POU2F3 Antibody - Protein Information**

**Name** POU2F3 ([HGNC:19864](#))

**Synonyms** OTF11, PLA1

**Function**

Transcription factor that binds to the octamer motif (5'- ATTTGCAT-3') and regulates cell type-specific differentiation pathways. Involved in the regulation of keratinocytes differentiation (PubMed:<a href="http://www.uniprot.org/citations/11329378" target="\_blank">11329378</a>). The POU2F3-POU2AF2/POU2AF3 complex drives the expression of tuft-cell-specific genes, a rare chemosensory cells that coordinate immune and neural functions within mucosal epithelial tissues (PubMed:<a href="http://www.uniprot.org/citations/35576971" target="\_blank">35576971</a>).

**Cellular Location**

Nucleus {ECO:0000250|UniProtKB:P31362}.

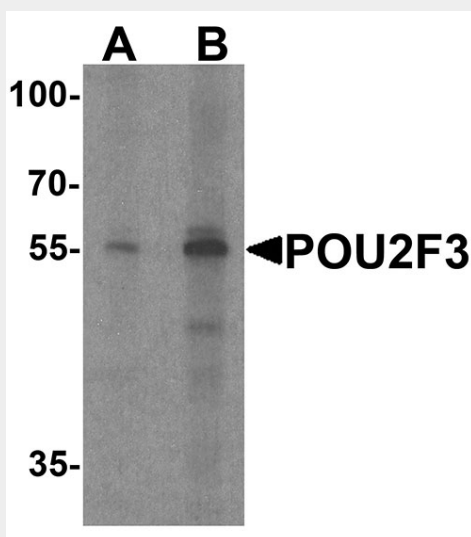
**Tissue Location**

Specifically expressed in epidermis and cultured keratinocytes.

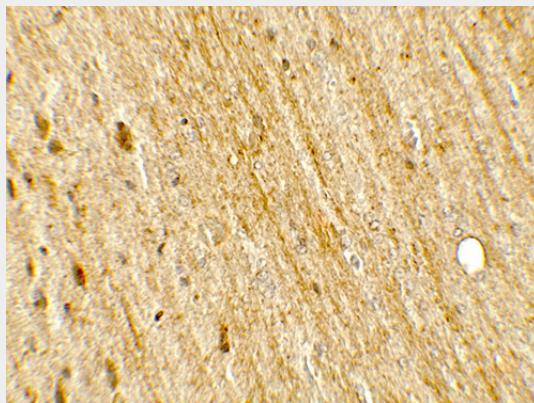
**POU2F3 Antibody - Protocols**

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

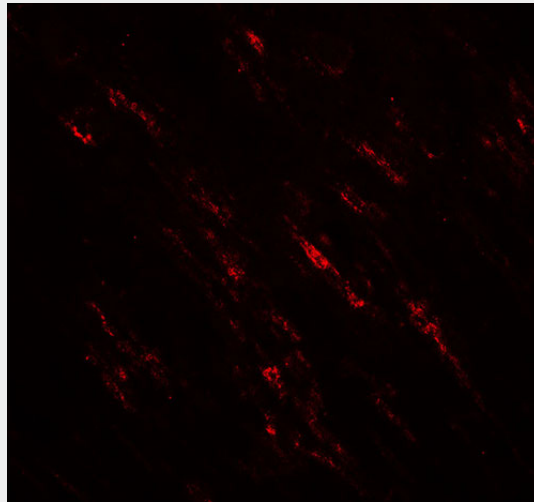
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**POU2F3 Antibody - Images**

Western blot analysis of POU2F3 in SK-N-SH cell lysate with POU2F3 antibody at (A) 1 and (B) 2 µg/ml.



Immunohistochemistry of POU2F3 in rat brain tissue with POU2F3 antibody at 5 µg/mL.



Immunofluorescence of POU2F3 in rat brain tissue with POU2F3 antibody at 20 µg/mL.

### **POU2F3 Antibody - Background**

POU2F3, also known as Epoc-1, is a member of a family of POU domain family of transcription factors (1). POU2F3 is expressed primarily in the epidermis and plays a critical role in keratinocyte proliferation and differentiation (1,2). It is a crucial transcription factor that is required for the development of sweet, umami, and bitter, but not sour taste receptor cells (3). POU2F3 is also a candidate tumor suppressor protein, and aberrant promoter methylation of this gene may play a role in cervical cancer (4).

### **POU2F3 Antibody - References**

Yukawa K, Yasui T, Yamamoto A, et al. Epoc-1: a POU-domain gene expressed in murine epidermal basal cells and thymic stromal cells. *Gene* 1993; 133:163-9.  
Cabral A, Fischer DF, Vermeij WP, et al. Distinct functional interactions of human Skn-1 isoforms with Ese-1 during keratinocyte terminal differentiation. *J. Biol. Chem.* 2003; 278:17792-9.  
Matsumoto I, Ohmoto M, Narukawa M, et al. Skn-1a/Pou2f3 specifies taste receptor cell lineage. *Nat. Neurosci.* 2011; 14:685-7.  
Zhang Z, Huettner PC, Nguyen L, et al. Aberrant promoter methylation and silencing of the POU2F3 gene in cervical cancer. *Oncogene* 2006; 25:5436-45.