

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

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|-------------------|--|
| Application | WB, IHC, IF |
| Primary Accession | Q9UKI9 |
| Other Accession | NP_001231611 , 347658964 |
| Reactivity | Human, Mouse, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Calculated MW | Predicted: 48 kDa |

| | |
|-------------------|---|
| Application Notes | Observed: 55 kDa 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:11329378). 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:35576971).

Cellular Location

Nucleus {ECO:0000250|UniProtKB:P31362}.

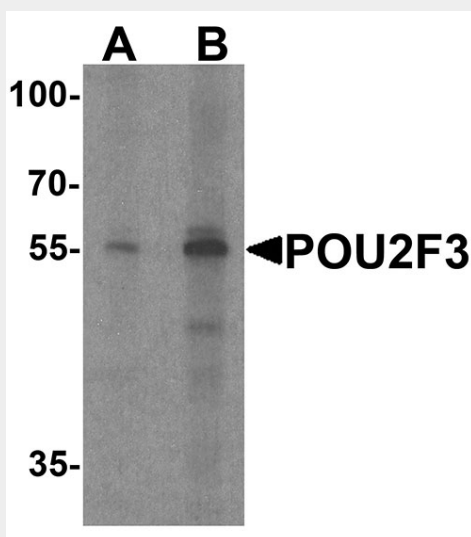
Tissue Location

Specifically expressed in epidermis and cultured keratinocytes.

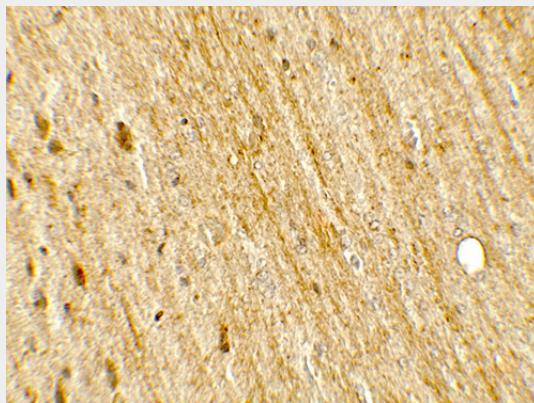
POU2F3 Antibody - Protocols

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

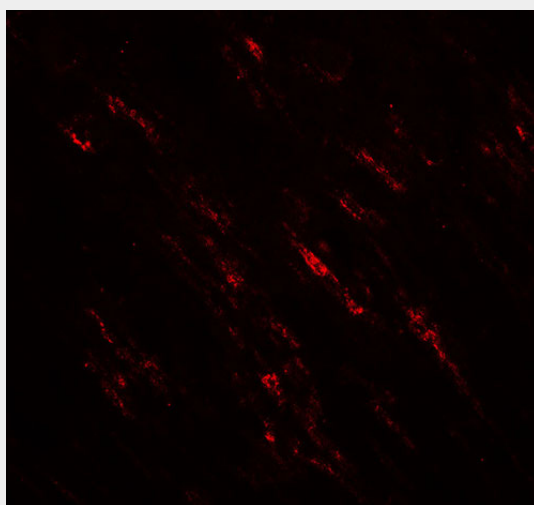
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

POU2F3 Antibody - Images

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