

POU2F3 Antibody

Catalog # ASC11800

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UKI9
Other Accession	NP_001231611 , 347658964
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	47432
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	POU2F3 antibody can be used for detection of POU2F3 by Western blot at 1 - 2 μ g/ml. Antibody can also be used for Immunohistochemistry at 5 μ g/mL. For Immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	25833
Other Names	POU domain, class 2, transcription factor 3, Octamer-binding protein 11, Oct-11, Octamer-binding transcription factor 11, OTF-11, Transcription factor PLA-1, Transcription factor Skn-1, POU2F3, OTF11, PLA1
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.

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.

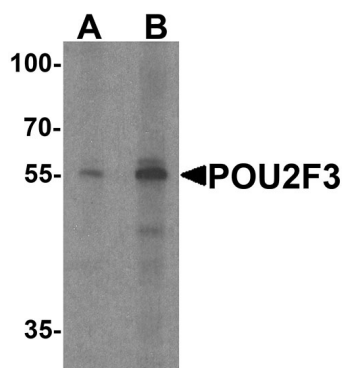
Background

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).

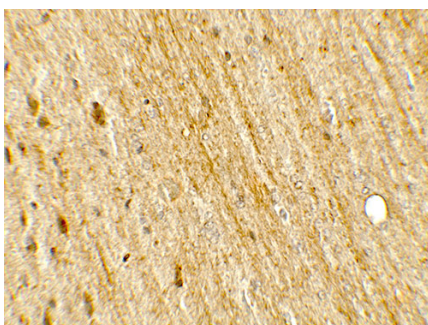
References

- 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.

Images

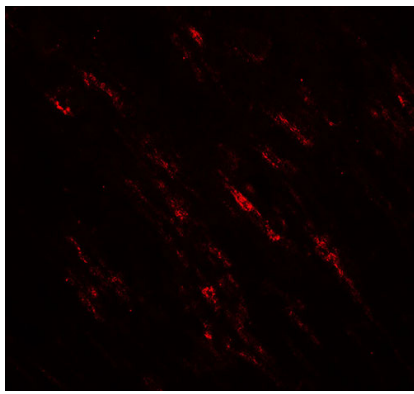


Western blot analysis of POU2F3 in SK-N-SH cell lysate with POU2F3 antibody at (A) 1 and (B) 2 µg/ml.



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.



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