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TCF3 Antibody
Catalog # ASC11069

Specification

TCF3 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	P15923
Other Accession	NP_003191, 27777636
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**TCF3 antibody can be used for detection of TCF3 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

TCF3 Antibody - Additional Information

Gene ID **6929**

Target/Specificity
TCF3;

Reconstitution & Storage
TCF3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
TCF3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TCF3 Antibody - Protein Information

Name TCF3

Synonyms BHLHB21, E2A, ITF1

Function
Transcriptional regulator involved in the initiation of neuronal differentiation and mesenchymal to epithelial transition (By similarity). Heterodimers between TCF3 and tissue-specific basic helix-loop-helix (bHLH) proteins play major roles in determining tissue- specific cell fate during embryogenesis, like muscle or early B-cell differentiation (By similarity). Together with TCF15, required for the mesenchymal to epithelial transition (By similarity). Dimers bind DNA on E-box motifs: 5'-CANNTG-3' (By similarity). Binds to the kappa-E2 site in the kappa immunoglobulin gene enhancer (PubMed:2493990). Binds to IEB1 and IEB2, which are short DNA sequences in the insulin gene transcription control region (By similarity).

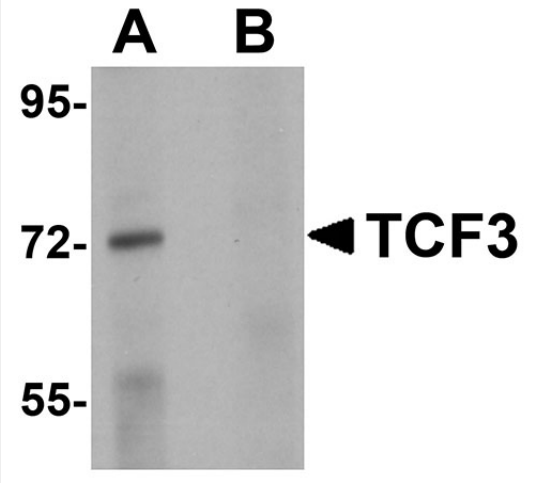
Cellular Location
Nucleus.

TCF3 Antibody - Protocols

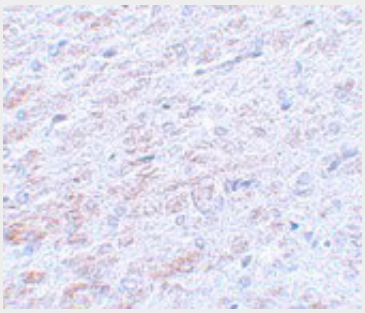
Provided below are standard protocols that you may find useful for product applications.

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

TCF3 Antibody - Images



Western blot analysis of TCF3 in Human brain tissue lysate with TCF3 antibody at 1 µg/mL in (A) the absence and (B) presence of peptide blocking.



Immunohistochemistry of TCF3 in rat liver tissue with TCF3 antibody at 5 µg/mL.

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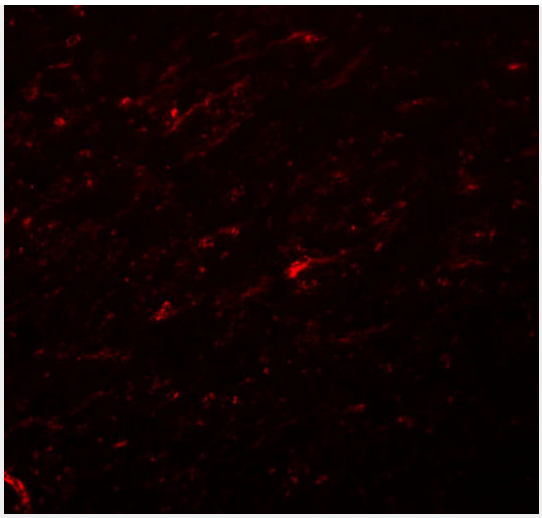

Immunofluorescence of TCF3 in rat brain tissue with TCF3 antibody at 20 µg/mL.

TCF3 Antibody - Background

TCF3 Antibody: The TCF3 gene, also called E2A, encodes two basic helix-loop-helix (bHLH) transcription factors, E12 and E47, through alternative splicing. These transcription factors are involved in mediating canonical Wnt signaling, which is very important in a diverse array of cellular functions such as stem cell proliferation, self-renewal, activation, fate determination, differentiation and aging and senescence. They bind beta-catenin and can act as transcriptional activators or repressors for Wnt target genes, and have been shown to regulate specific target genes during CNS development downstream of Wnt signaling. TCF3/Lef complexes are also known to play key roles in controlling cell fate lineages in multipotent skin stem cells.

TCF3 Antibody - References

Korinek V, Barker N, Willert K, et al. Two members of the Tcf family implicated in Wnt/beta-catenin signaling during embryogenesis in the mouse. Mol. Cell Biol.1998; 18:1248-1256.
Gribble SL, Kim HS, Bonner J, et al. Tcf3 inhibits spinal cord neurogenesis by regulating sox4a expression. Dev. Cell2009; 136:781-9.
Cole MF, Johnstone SE, Newman JJ, et al. Tcf3 is an integral component of the core regulatory circuitry of embryonic stem cells. Genes Dev.2008;22:746-55.
Nguyen H, Rendl M and Fuchs E. Tcf3 governs stem cell features and represses cell fate determination in skin. Cell2006; 127:171-83.