

**TCF12 Antibody**  
**Catalog # ASC11214****Specification**

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**TCF12 Antibody - Product Information**

Application	WB, ICC, E
Primary Accession	<a href="#">Q99081</a>
Other Accession	<a href="#">AAH50556</a> , <a href="#">29792012</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TCF12 antibody can be used for detection of TCF12 by Western blot at 0.5 - 1 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL.

**TCF12 Antibody - Additional Information**

Gene ID	6938
<b>Target/Specificity</b>	
TCF12;	

**Reconstitution & Storage**

TCF12 antibody can be stored at 4°C for three months and -20°C, 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**

TCF12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TCF12 Antibody - Protein Information**

**Name** TCF12

**Synonyms** BHLHB20, HEB, HTF4

**Function**

Transcriptional regulator. Involved in the initiation of neuronal differentiation. Activates transcription by binding to the E box (5'-CANNTG-3') (By similarity). May be involved in the functional network that regulates the development of the GnRH axis (PubMed:<a href="http://www.uniprot.org/citations/32620954" target="\_blank">32620954</a>).

**Cellular Location**

Nucleus.

**Tissue Location**

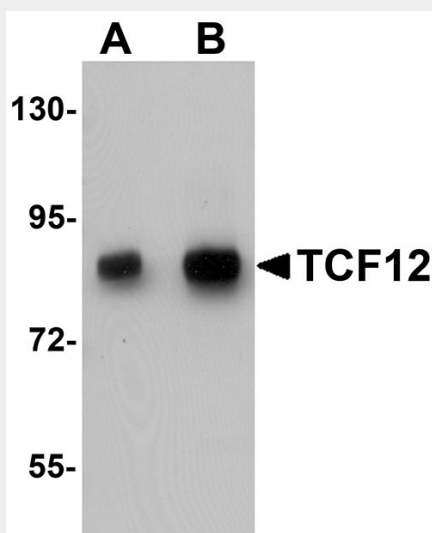
Expressed in several tissues and cell types including skeletal muscle, thymus, and a B-cell line

### TCF12 Antibody - Protocols

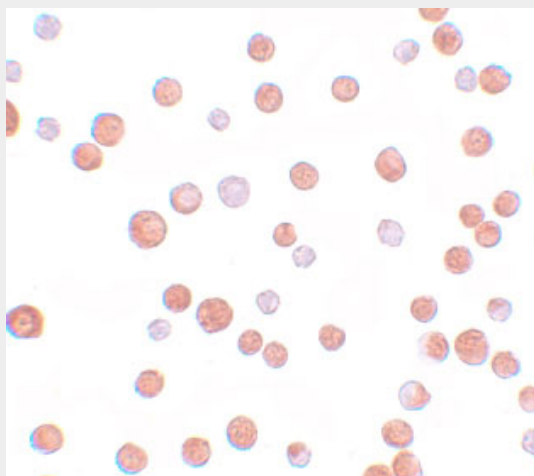
Provided below are standard protocols that you may find useful for product applications.

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

### TCF12 Antibody - Images



Western blot analysis of TCF12 in HeLa cell lysate with TCF12 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunocytochemistry of TCF12 in HeLa cells with TCF12 antibody at 10 µg/mL.

### TCF12 Antibody - Background

**TCF12 Antibody:** TCF12, also known as HTF4, is a member of the basic helix-loop-helix (bHLH) E-protein family that recognizes the consensus binding site (E-box) CANNTG. TCF12 is expressed in many tissues, among them skeletal muscle, thymus, B- and T-cells, and may participate in regulating lineage-specific gene expression through the formation of heterodimers with other bHLH E-proteins. TCF12, in combination with E2A, is required to block thymocyte proliferation prior to pre-TCR expression and is critical for proper T cell differentiation. Recent reports have shown that TCF12 is also a critical factor required for the development of invariant natural killer T cells.

#### **TCF12 Antibody - References**

Zhang Y and Bina M. The nucleotide sequence of the human transcription factor HTF4a cDNA. DNA Seq.1992; 2:397-403.

Murre C, McCaw PS, Vaessin H, et al. Interactions between heterologous helix-loop-helix proteins generate complexes that bind specifically to a common DNA sequence. Cell1989; 58:537-44.

Wojciechowski J, Lai A, Kondo M, et al. E2A and HEB are required to block thymocyte proliferation prior to pre-TCR expression. J. Immunol.2007; 178:5717-26.

D'Cruz LM, Knell J, Fujimoto JK, et al. An essential role for the transcription factor HEB in thymocyte survival, Tcra rearrangement and the development of natural killer T cells. Nat. Immunol.2010; 11:240-9.