

## Product datasheet

### Anti-TCF-4/TCF7L2 antibody ab134275

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#### Overview

<b>Product name</b>	Anti-TCF-4/TCF7L2 antibody
<b>Description</b>	Rabbit polyclonal to TCF-4/TCF7L2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
<b>Storage buffer</b>	Preservative: 0.02% Sodium azide Constituents: 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine), 49% PBS  Without Mg <sup>2+</sup> or Ca <sup>2+</sup>
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

#### Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab134275 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/200 - 1/1000. Predicted molecular weight: 68 kDa.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

### Function

Participates in the Wnt signaling pathway and modulates MYC expression by binding to its promoter in a sequence-specific manner. Acts as repressor in the absence of CTNNB1, and as activator in its presence. Activates transcription from promoters with several copies of the Tcf motif 5'-CCTTTGATC-3' in the presence of CTNNB1. TLE1, TLE2, TLE3 and TLE4 repress transactivation mediated by TCF7L2 and CTNNB1. Expression of dominant-negative mutants results in cell-cycle arrest in G1. Necessary for the maintenance of the epithelial stem-cell compartment of the small intestine.

### Tissue specificity

Detected in epithelium from small intestine, with the highest expression at the top of the crypts and a gradient of expression from crypt to villus. Detected in colon epithelium and colon cancer, and in epithelium from mammary gland and carcinomas derived therefrom.

### Involvement in disease

Note=Constitutive activation and subsequent transactivation of target genes may lead to the maintenance of stem-cell characteristics (cycling and longevity) in cells that should normally undergo terminal differentiation and constitute the primary transforming event in colorectal cancer (CRC).  
Genetic variations in TCF7L2 are associated with susceptibility to non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.

### Sequence similarities

Belongs to the TCF/LEF family.  
Contains 1 HMG box DNA-binding domain.

### Developmental stage

Highly expressed in crypt regions and barely detectable in villi in epithelium from fetal small intestine at week 16. At week 22 expression in villi had increased strongly.

### Domain

The promoter-specific activation domain interacts with the transcriptional coactivator EP300.

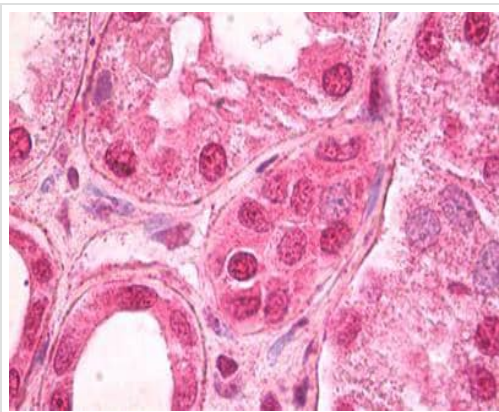
### Post-translational modifications

In vitro, phosphorylated by TNIK.  
Polysumoylated. Sumoylation is enhanced by PIAS family members and desumoylated by AXAM/SEN2. Sumoylation/desumoylation regulates TCF4 transcription activity in the Wnt signaling pathway without altering interaction with CTNNB1 nor binding DNA.

### Cellular localization

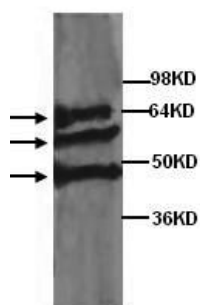
Nucleus > PML body. Diffuse pattern. Colocalizes with SUMO1 and PIAS4 in a subset of PML (promyelocytic leukemia) nuclear bodies.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TCF-4/TCF7L2 antibody (ab134275)

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labelling TCF-4/TCF7L2 with ab134275 at 5µg/ml. Primary incubation was followed by biotinylated goat anti-rabbit IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.



Western blot - Anti-TCF-4/TCF7L2 antibody (ab134275)

Anti-TCF-4/TCF7L2 antibody (ab134275) at 1/500 dilution + HeLa cell lysate

**Predicted band size:** 68 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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