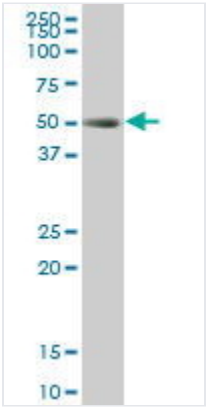
TCF2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	TCF2, Monoclonal Antibody
Full Product Name	TCF2 (HNF1 Homeobox B, FJHN, HNF1beta, HNF2, HPC11, LF-B3, LFB3, MODY5, TCF2, VHNF1) (FITC)
Product Gene Name	anti-TCF2 antibody
Product Synonym Names	HNF1 Homeobox B; FJHN; HNF1beta; HNF2; HPC11; LF-B3; LFB3; MODY5; TCF2; VHNF1
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	3.0e+11
Host	Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein isothiocyanate (FITC).
Purity/Purification	Purified
Specificity	Recognizes TCF2.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	61kDa
OMIM	125853
3D Structure	ModBase 3D Structure for P35680
Immunogen	TCF2 (NP_000449, 29aa-118aa) partial recombinant protein with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	ALEELLPSPNFGVKLETLPLSPGSGAEPDTKPVFHTLTNGHAKGRLSGDEGSEDGDDYDTPPILKELQALNTEEAAEQRAEVDRMLSEDP
Conjugate	FITC
Product Categories/Family for anti-TCF2 antibody	Antibodies; Transcription Factors; Homeobox (HOX)
Applications Tested/Suitable for anti-TCF2 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-TCF2 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-TCF2 antibody	This gene encodes a member of the homeodomain-containing superfamily of transcription factors. The protein binds to DNA as either a homodimer, or a heterodimer with the related protein hepatocyte nuclear factor 1-alpha. The gene has been shown to function in nephron development, and regulates development of the embryonic pancreas. Mutations in this gene result in renal cysts and diabetes syndrome and noninsulin-dependent diabetes mellitus, and expression of this gene is altered in some types of cancer. Multiple transcript variants encoding different isoforms have been found for this gene.

Other Notes	Small volumes of anti-TCF2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TCF2 purchase	MBS6176862 is an antibody targeting TCF2. Also known as TCF2 (HNF1 Homeobox B, FJHN, HNF1beta, HNF2, HPC11, LF-B3, LFB3, MODY5, TCF2, VHNF1) (FITC). Host: Mouse.



Western Blot (WB) of anti-TCF2 antibody
TCF2 monoclonal antibody (M02), clone 3E11. Western Blot analysis of TCF2 expression in human skin.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TCF2. It may not necessarily be applicable to this product.

NCBI GI #	4507397
NCBI GeneID	6928
NCBI Accession #	NP_000449
UniProt Primary Accession #	P35680
UniProt Related Accession #	P35680
GenBank Nucleotide #	NM_000458
NCBI Official Full Name	hepatocyte nuclear factor 1-beta isoform 1
NCBI Official Synonym Full Names	HNF1 homeobox B
NCBI Official Symbol	HNF1B
NCBI Official Synonym Symbols	FJHN; HNF2; LFB3; TCF2; HPC11; LF-B3; MODY5; TCF-2; VHNF1; HNF-1B; HNF1beta; HNF-1-beta
UniProt Protein Name	Hepatocyte nuclear factor 1-beta
UniProt Synonym Protein Names	Homeoprotein LFB3; Transcription factor 2; TCF-2; Variant hepatic nuclear factor 1
UniProt Gene Name	HNF1B
UniProt Synonym Gene Names	TCF2; HNF-1-beta; HNF-1B; TCF-2; vHNF1
UniProt Entry Name	HNF1B_HUMAN
NCBI Protein Information	hepatocyte nuclear factor 1-beta

UniProt Comments for TCF2	TCF2: Transcription factor, probably binds to the inverted palindrome 5'-GTTAATNATTAAC-3'. Defects in HNF1B are the cause of renal cysts and diabetes syndrome (RCAD); also called maturity-onset diabetes of the young type 5 (MODY5) or familial hypoplastic glomerulocystic kidney disease (GCKD). RCAD is an autosomal dominant disorder comprising non-diabetic renal disease resulting from abnormal renal development, and diabetes, which in some cases occurs earlier than age 25 years and is thus consistent with a diagnosis of maturity-onset diabetes of the young (MODY5). The renal disease is highly variable and includes renal cysts, glomerular tufts, aberrant nephrogenesis, primitive tubules, irregular collecting systems, oligomeganephronia, enlarged renal pelves, abnormal calyces, small kidney, single kidney, horseshoe kidney, and hyperuricemic nephropathy. Defects in HNF1B may be rare genetic risk factor contributing to the development of non-insulin-dependent diabetes mellitus (NIDDM). NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance. Defects in HNF1B may be a cause of susceptibility to prostate cancer hereditary type 11 (HPC11). It is a condition associated with familial predisposition to cancer of the prostate. Most prostate cancers are adenocarcinomas that develop in the acini of the prostatic ducts. Other rare histopathologic types of prostate cancer that occur in approximately 5% of patients include small cell carcinoma, mucinous carcinoma, prostatic ductal carcinoma, transitional cell carcinoma, squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma (basaloid), signet-ring cell carcinoma and neuroendocrine carcinoma. Belongs to the HNF1 homeobox family. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Transcription factor; DNA-binding Chromosomal Location of Human Ortholog: 17q12 Cellular Component: nucleoplasm; transcription factor complex; nucleus Molecular Function: RNA polymerase II transcription factor activity, enhancer binding; protein binding; protein homodimerization activity; DNA binding; protein heterodimerization activity; transcription factor activity Biological Process: transcription from RNA polymerase II promoter; endodermal cell fate specification; positive regulation of transcription, DNA-dependent; regulation of Wnt receptor signaling pathway; negative regulation of transcription from RNA polymerase II promoter; endocrine pancreas development; pronephros development; anterior/posterior pattern formation; genitalia development; epithelial cell proliferation; inner cell mass cell differentiation; branching morphogenesis of a tube; insulin secretion; embryonic digestive tract morphogenesis; response to glucose stimulus; regulation of endodermal cell fate specification; kidney development; hindbrain development Disease: Renal Cysts And Diabetes Syndrome; Renal Cell Carcinoma, Nonpapillary; Diabetes Mellitus, Noninsulin-dependent
Research Articles on TCF2	**1.** Isolate living subpopulations of duct cells enriched for high or low expression of HNF1beta and SOX9.
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