SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-E2F4 antibody

Catalog Number: SL1399R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	E2F4
Immunogen:	KLH conjugated synthetic peptide derived from human E2F4: 1-150/413
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat,Chicken,Dog,Pig,Cow,Horse)
Predicted MW.:	44kDa
Subcellular Location:	The nucleus
Background:	The protein encoded by this gene is a member of the E2F family of transcription factors. The E2F family plays a crucial role in the control of cell cycle and action of tumor suppressor proteins and is also a target of the transforming proteins of small DNA tumor viruses. The E2F proteins contain several evolutionally conserved domains found in most members of the family. These domains include a DNA binding domain, a dimerization domain which determines interaction with the differentiation regulated transcription factor proteins (DP), a transactivation domain enriched in acidic amino acids, and a tumor suppressor protein association domain which is embedded within the transactivation domain. This protein binds to all three of the tumor suppressor proteins pRB, p107 and p130, but with higher affinity to the last two. It plays an important role in the suppression of proliferation-associated genes, and its

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	gene mutation and increased expression may be associated with human cancer. [provided by RefSeq, Jul 2008] **Function:** Transcription activator that binds DNA cooperatively with DP proteins through the E2 recognition site, 5'-TTTC[CG]CGC-3' found in the promoter region of a number of genes whose products are involved in cell cycle regulation or in DNA replication. The DRTF1/E2F complex functions in the control of cell-cycle progression from G1 to S phase. E2F4 binds with high affinity to RBL1 and RBL2. In some instances can also bind RB1. **Subunit:** Component of the DRTF1/E2F transcription factor complex. Binds cooperatively with TFDP1/Dp-1 to E2F sites. The E2F4/TFDP1 dimer interacts preferentially with pocket protein RBL1, which inhibits the E2F transactivation domain. Lower affinity interaction has been found with retinoblastoma protein RB1. Interacts with TRRAP, which probably mediates its interaction with histone acetyltransferase complexes, leading to transcription activation. Interacts with HCFC1. Component of the DREAM complex (also named LINC complex) at least composed of E2F4, E2F5, LIN9, LIN37, LIN52, LIN54, MYBL1, MYBL2, RBL1, RBL2, RBBP4, TFDP1 and TFDP2. The complex exists in quiescent cells where it represses cell cycle-dependent genes. It dissociates in S phase when LIN9, LIN37, LIN52 and LIN54 form a subcomplex that binds to MYBL2. Interacts with PML (isoform PML-1, isoform PML-2, isoform PML-3, isoform PML-4 and isoform PML-5). **Subcellular Location:** Nucleus. **Tissue Specificity:** Found in all tissue examined including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas. **Post-translational modifications:** Differentially phosphorylated in vivo. **Similarity:** Belongs to the E2F/DP family. **Database links:** **Entrez Gene:** 1874 Human **Entrez Gene:** 100360427 Rat Omim: 600659 Human **SwissProt:** Q16254 Human **Unigene:** 108371 Human transcriptional regulatory factor（Transcriptin Regulators）

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[VALIDATION IMAGES]

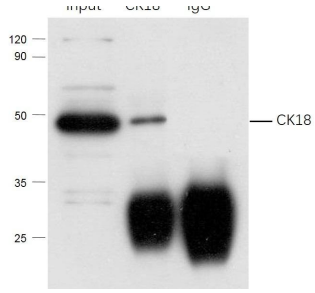


Figure 1. CK18 was immunoprecipitated from human hela cells lysate with SL1399R at 1/150 dilution. Western blot was performed from the immunoprecipitate using protein A/G beads. HRP Conjugated Mouse anti-Rabbit IgG (Light Chain specific) was used as secondary antibody at 1:5000 dilution. Lane 1: human hela cells lysate 10 µg (Input). Lane 2: SL1399R IP in human hela cells lysate. Lane 3: native rabbit IgG IP in human hela cells lysate (negative control). Secondary All lanes: Mouse anti-Rabbit IgG (Light Chain specific), HRP Conjugated, 1:5000

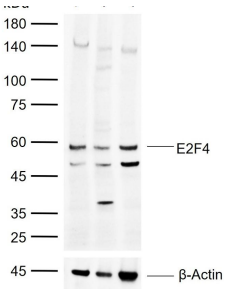


Figure 2. Sample: Lane 1: Human A431 cell lysates Lane 2: Human 293T cell lysates Lane 3: Human HL-60 cell lysates Primary: Anti-E2F4 (SL1399R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 44 kDa Observed band size: 50 kDa

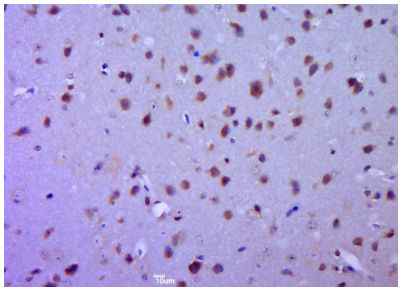


Figure 3. Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (E2F4) Polyclonal Antibody, Unconjugated (SL1399R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining

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