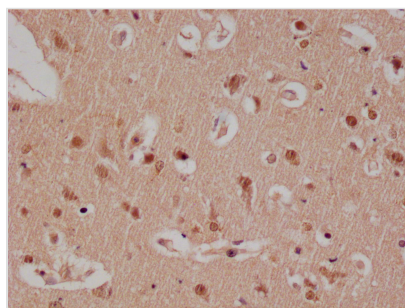




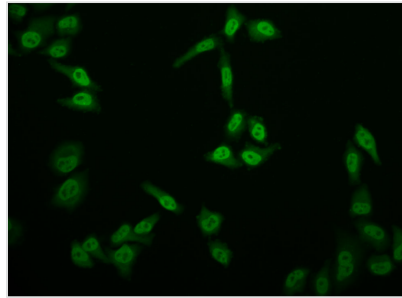
E2F4 Antibody

Product Code	CSB-RA179313A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q16254
Immunogen	A synthesized peptide derived from human E2F4
Species Reactivity	Human
Tested Applications	ELISA, IHC, IF, FC; Recommended dilution: IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Relevance	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. Specifically required for multiciliate cell differentiation: together with MCIDAS and E2F5, binds and activate genes required for centriole biogenesis. {ECO:0000250 UniProtKB:Q6DE14, ECO:0000269 PubMed:7958924, ECO:0000269 PubMed:7958925}.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Stem cells
Gene Names	E2F4
Clone No.	24E12

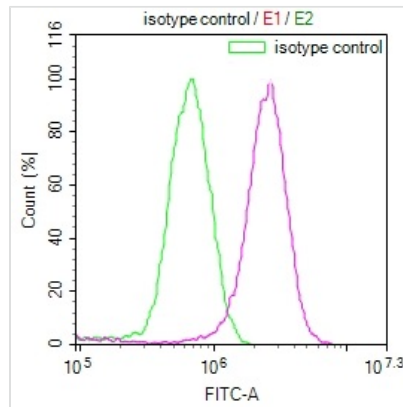
Image



IHC image of CSB-RA179313A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of HeLa cell with CSB-RA179313A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 513-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing MCF7 cells stained with CSB-RA179313A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10⁶cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was rabbit IgG (1ug/1*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The production of the E2F4 recombinant monoclonal antibody is a complex process that involves several stages. Initially, the E2F4 monoclonal antibody is obtained, and its gene sequence is determined. Then, a vector carrying the E2F4 monoclonal antibody gene is constructed and introduced into a host cell line for culture. A synthesized peptide from human E2F4 is used as the immunogen during the E2F4 monoclonal antibody production process. Finally, affinity chromatography is used to purify the resulting E2F4 recombinant monoclonal antibody, which is then evaluated for specificity via ELISA, IHC, IF, and FC applications. This E2F4 recombinant monoclonal antibody is only reactive with human E2F4 protein.

E2F4 is a transcription factor that plays a key role in cell cycle regulation and DNA replication. It binds to specific DNA sequences in target genes and either activates or represses their transcription. E2F4 is involved in the G1/S phase transition of the cell cycle and is required for proper progression through the G1 phase. It also has a role in regulating apoptosis and differentiation, and the aberrant expression or function of E2F4 has been associated with various types of cancer.