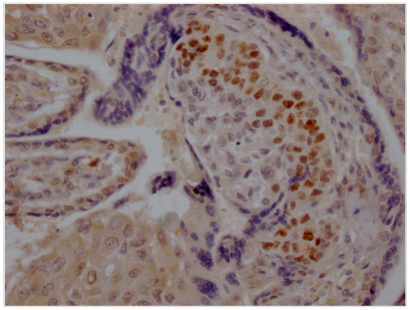
SKP2 Recombinant Monoclonal Antibody

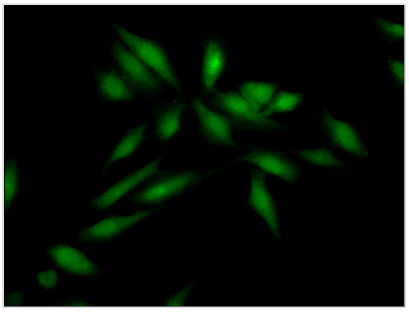
Product Code	CSB-RA224072A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q13309
Immunogen	A synthesized peptide derived from human SKP2
Species Reactivity	Human
Tested Applications	ELISA, IHC, IF; Recommended dilution: IHC:1:50-1:200, IF:1:20-1:200
Relevance	Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins involved in cell cycle progression, signal transduction and transcription. Specifically recognizes phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. Degradation of CDKN1B/p27kip also requires CKS1. Recognizes target proteins ORC1, CDT1, RBL2, KMT2A/MLL1, CDK9, RAG2, FOXO1, UBP43, and probably MYC, TOB1 and TAL1. Degradation of TAL1 also requires STUB1. Recognizes CDKN1A in association with CCNE1 or CCNE2 and CDK2. Promotes ubiquitination and destruction of CDH1 in a CK1-Dependent Manner, thereby regulating cell migration.
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	Cancer; Cardiovascular; Cell biology
Gene Names	SKP2
Clone No.	6D4

Image



IHC image of CSB-RA224072A0HU diluted at 1:100 and staining in paraffin-embedded human placenta 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and

visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA224072A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The production of the SKP2 recombinant monoclonal antibody is a complex and precise process. The initial steps involve harvesting the SKP2 monoclonal antibody and sequencing its gene. And then, constructing a vector carrying the SKP2 monoclonal antibody gene and transferring it into a host cell line for culturing. To synthesize the SKP2 monoclonal antibody, a synthesized peptide from human SKP2 is used as an immunogen. The SKP2 recombinant monoclonal antibody is purified using affinity chromatography to ensure high purity and specificity. Its specificity is then confirmed through ELISA, IHC, and IF assays to verify that it correctly recognizes its target. It only reacts with the human SKP2 protein.

SKP2, the component of the SCF (SKP1-CUL1-F-box protein) E3 ubiquitin ligase complex, is a critical regulator of the cell cycle and DNA damage response. SKP2 plays a critical role in cell cycle progression by promoting the degradation of specific cell cycle inhibitors, such as p27Kip1 and p21Cip1, enhancing CDK activity and cell cycle progression. SKP2-mediated degradation of p53 can lead to the accumulation of DNA damage and genomic instability. It is frequently overexpressed in various types of cancer, including breast cancer, prostate cancer, and lung cancer. SKP2 overexpression can promote cell proliferation, survival, and invasion by degrading tumor suppressor proteins and promoting oncogenic signaling pathways.