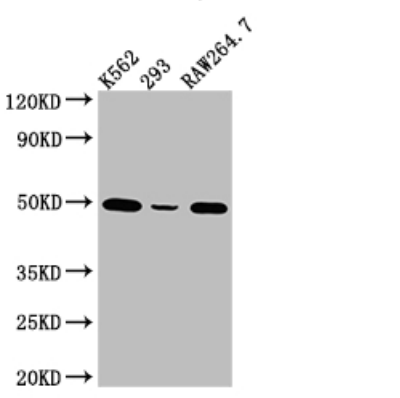
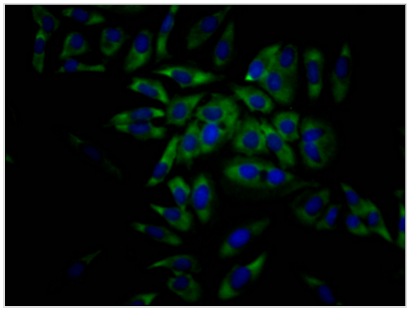
EIF4A1 Antibody

Product Code	CSB-RA190088A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P60842
Immunogen	A synthesized peptide derived from human eIF4A1
Species Reactivity	Human
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
Relevance	ATP-dependent RNA helicase which is a subunit of the eIF4F complex involved in cap recognition and is required for mRNA binding to ribosome. In the current model of translation initiation, eIF4A unwinds RNA secondary structures in the 5'-UTR of mRNAs which is necessary to allow efficient binding of the small ribosomal subunit, and subsequent scanning for the initiator codon.
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
Gene Names	EIF4A1
Accession NO.	7C3

Image



Western Blot
Positive WB detected in: K562 whole cell lysate, 293 whole cell lysate, RAW264.7 whole cell lysate
All lanes: eIF4A1 Antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 40, 47 kDa
Observed band size: 50 kDa



Immunofluorescence staining of Hela Cells with CSB-RA190088A0HU 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°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

In cap-dependent translation, EIF4A1 is an mRNA helicase that is involved in the unwinding of the secondary structure, such as the stem-loops, in the 5′-UTR of the mRNA. This facilitates ribosomal scanning and translation of the oncogenic mRNAs. EIF4A1 has a regulatory role in translating many oncoproteins that have vital roles in several steps of metastases. It also plays an important role in malignant transformation and progression. Recent evidence has shown that eIF4A1 is dysregulated in gastric cancer (GC), hepatocellular carcinoma, ovarian cancer, and others.

This recombinant EIF4A1 antibody was developed with the Single B cell platform. The main process included identification and isolation of single B cells; amplification and cloning of EIF4A1 antibody gene; expression, screening, and identification of antibody specificity. And this EIF4A1 antibody has been validated in ELISA, WB, IF.