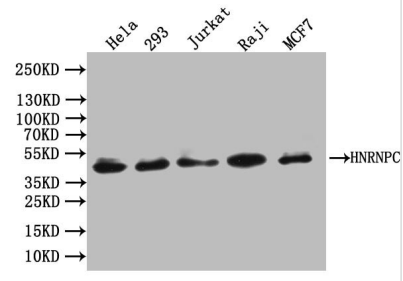
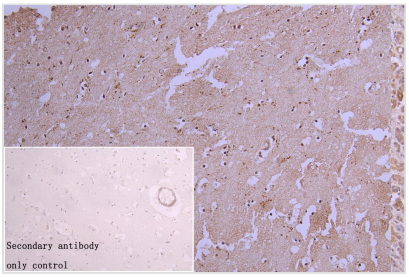
HNRNPC Recombinant Monoclonal Antibody

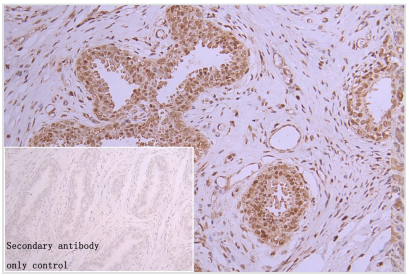
Product Code	CSB-RA010605A0HU
Abbreviation	Heterogeneous nuclear ribonucleoproteins C1/C2
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P07910
Immunogen	A synthesized peptide derived from human HNRNPC
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF, FC, IP; Recommended dilution: WB:1:500-1:5000, IHC:1:200-1:500, IF:1:20-1:200, IP:1:200-1:1000
Relevance	Binds pre-mRNA and nucleates the assembly of 40S hnRNP particles (PubMed:8264621). Interacts with poly-U tracts in the 3'-UTR or 5'-UTR of mRNA and modulates the stability and the level of translation of bound mRNA molecules (PubMed:12509468, PubMed:16010978, PubMed:7567451, PubMed:8264621). Single HNRNPC tetramers bind 230-240 nucleotides. Trimers of HNRNPC tetramers bind 700 nucleotides (PubMed:8264621). May play a role in the early steps of spliceosome assembly and pre-mRNA splicing. N6-methyladenosine (m6A) has been shown to alter the local structure in mRNAs and long non-coding RNAs (lncRNAs) via a mechanism named 'm(6)A-switch', facilitating binding of HNRNPC, leading to regulation of mRNA splicing (PubMed:25719671).
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	HNRNPC
Clone No.	9G1
Image	



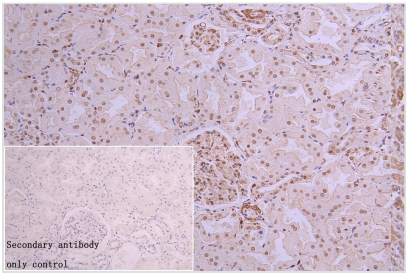
Western Blot
Positive WB detected in: Hela whole cell lysate, 293 whole cell lysate, JK whole cell lysate, Raji whole cell lysate, MCF7 whole cell lysate
All lanes: HNRNPC antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 34, 33, 36, 28 kDa
Observed band size: 42 kDa



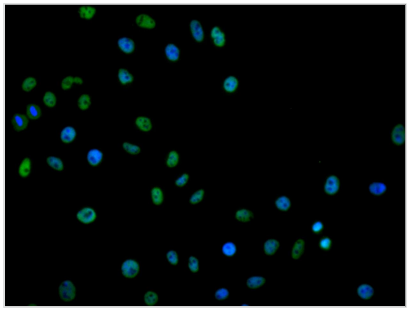
IHC image of CSB-RA010605A0HU diluted at 1:300 and staining in paraffin-embedded human braintissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. 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. Secondary antibody only control: uses 1% BSA instead of primary antibody



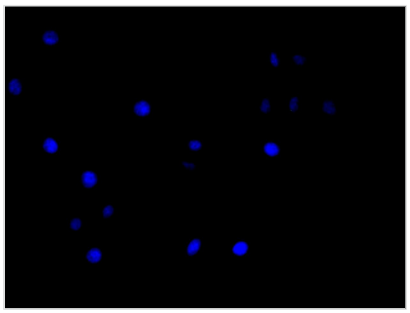
IHC image of CSB-RA010605A0HU diluted at 1:300 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at 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. Secondary antibody only control: uses 1% BSA instead of primary antibody



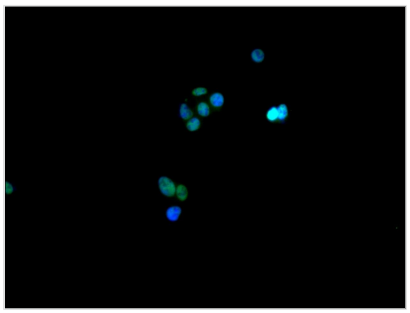
IHC image of CSB-RA010605A0HU diluted at 1:300 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at 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. Secondary antibody only control: uses 1% BSA instead of primary antibody



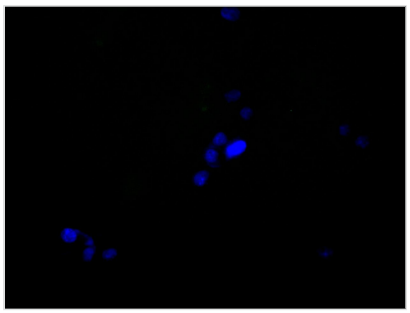
Immunofluorescence staining of Hela cell with CSB-RA010605A0HU at 1:30, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



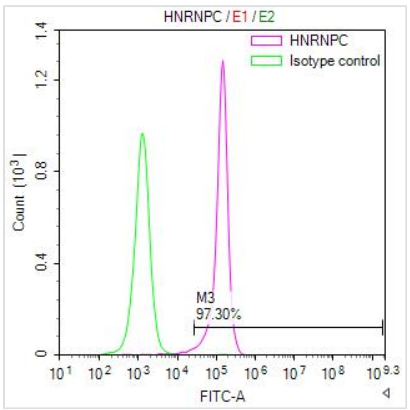
Immunofluorescence staining of Hela cell with 5% goat serum, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescence staining of HepG2 cell with CSB-RA010605A0HU at 1:30, 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 4C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescence staining of HepG2 cell with 5% goat serum, 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 4C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing MCF7 cells stained with CSB-RA010605A0HU (red line) at 1:50. 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*10^6cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was Rabit IgG (1ug/1*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Immunoprecipitating HNRNPC in Hela whole cell lysate
Lane 1: Rabbit control IgG instead of CSB-RA010605A0HU in Hela whole cell lysate. Lane 2:CSB-RA010605A0HU?3μg?+ Hela whole cell lysate?500μg?
Lane 3: Hela whole cell lysate(20μg)
For western blotting, Goat polyclonal to rabbit IgG antibody was used as the secondary antibody (1/50000)

Description

CUSABIO administered a human HNRNPC-derived peptide to an animal to elicit an immune response. B cells were subsequently isolated from the immunized animal and fused with myeloma cells, generating hybridoma cells. Through screening, a single hybridoma cell clone that produces the desired HNRNPC-specific antibody was identified and selected. RNA was extracted from the chosen hybridoma cells, and the variable regions of the HNRNPC antibody's heavy and light chains were isolated and amplified using reverse transcription PCR. These amplified HNRNPC antibody variable regions were then cloned into an expression vector and transfected into a host cell line for expression purposes. The resulting HNRNPC recombinant monoclonal antibodies were purified from the cell culture supernatant using affinity chromatography. Six applications including ELISA, WB, IHC, IF, FC, and IP were employed to confirm the binding specificity and affinity of this antibody. Notably, this antibody exhibits recognition specifically for human HNRNPC protein.