

## ARG44216 anti-NCBP2 antibody

Package: 50 µg  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes NCBP2
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	NCBP2
Species	Human
Immunogen	Recombinant protein of Human NCBP2
Conjugation	Un-conjugated
Alternate Names	NCBP2; Nuclear Cap Binding Protein Subunit 2; CBP20; NIP1; Nuclear Cap Binding Protein Subunit 2, 20kDa; Nuclear Cap Binding Protein Subunit 2, 20kD; Cell Proliferation-Inducing Gene 55 Protein; Nuclear Cap-Binding Protein Subunit 2; 20 KDa Nuclear Cap-Binding Protein; NCBP 20 KDa Subunit; CBC2; NCBP Interacting Protein 1; NCBP-Interacting Protein 1; PIG55; Cbc2

### Application Instructions

Application table	Application	Dilution
	FACS	1-3 µg/1x10 <sup>6</sup> cells
	ICC/IF	5 µg/ml
	IHC-P	2-5 µg/ml
	WB	0.1-0.25 µg/ml

**Application Note** \* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated

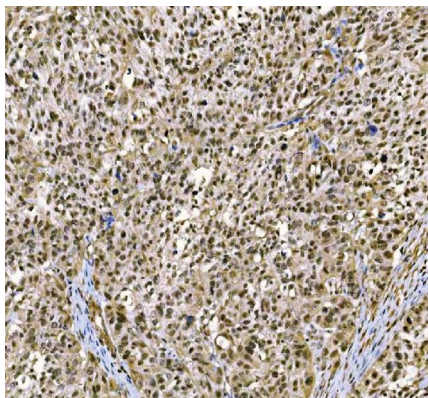
freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

**Note** For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

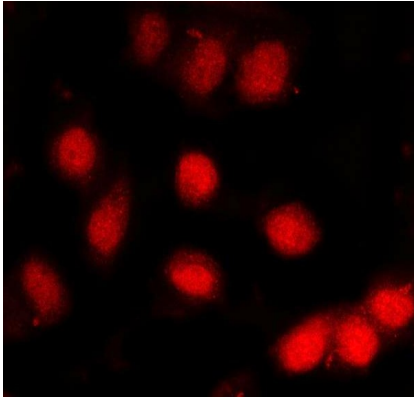
Gene Symbol	NCBP2
Gene Full Name	Nuclear Cap Binding Protein Subunit 2
Background	The product of this gene is a component of the nuclear cap-binding protein complex (CBC), which binds to the monomethylated 5' cap of nascent pre-mRNA in the nucleoplasm. The encoded protein has an RNP domain commonly found in RNA binding proteins, and contains the cap-binding activity. The CBC promotes pre-mRNA splicing, 3'-end processing, RNA nuclear export, and nonsense-mediated mRNA decay. Multiple transcript variants encoding different isoforms have been found for this gene.
Function	Component of the cap-binding complex (CBC), which binds co-transcriptionally to the 5' cap of pre-mRNAs and is involved in various processes such as pre-mRNA splicing, translation regulation, nonsense-mediated mRNA decay, RNA-mediated gene silencing (RNAi) by microRNAs (miRNAs) and mRNA export. The CBC complex is involved in mRNA export from the nucleus via its interaction with ALYREF/THOC4/ALY, leading to the recruitment of the mRNA export machinery to the 5' end of mRNA and to mRNA export in a 5' to 3' direction through the nuclear pore. The CBC complex is also involved in mediating U snRNA and intronless mRNAs export from the nucleus. The CBC complex is essential for a pioneer round of mRNA translation, before steady state translation when the CBC complex is replaced by cytoplasmic cap-binding protein eIF4E. The pioneer round of mRNA translation mediated by the CBC complex plays a central role in nonsense-mediated mRNA decay (NMD), NMD only taking place in mRNAs bound to the CBC complex, but not on eIF4E-bound mRNAs. The CBC complex enhances NMD in mRNAs containing at least one exon-junction complex (EJC) via its interaction with UPF1, promoting the interaction between UPF1 and UPF2. The CBC complex is also involved in 'failsafe' NMD, which is independent of the EJC complex, while it does not participate in Staufen-mediated mRNA decay (SMD). During cell proliferation, the CBC complex is also involved in microRNAs (miRNAs) biogenesis via its interaction with SRRT/ARS2, thereby being required for miRNA-mediated RNA interference. The CBC complex also acts as a negative regulator of PARN, thereby acting as an inhibitor of mRNA deadenylation. In the CBC complex, NCBP2/CBP20 recognizes and binds capped RNAs (m <sup>7</sup> GpppG-capped RNA) but requires NCBP1/CBP80 to stabilize the movement of its N-terminal loop and lock the CBC into a high affinity cap-binding state with the cap structure. The conventional cap-binding complex with NCBP2 binds both small nuclear RNA (snRNA) and messenger (mRNA) and is involved in their export from the nucleus.
Calculated Mw	18 kDa
PTM	Acetylation, Methylation, Phosphoprotein
Cellular Localization	Cytoplasm, Nucleus

## Images



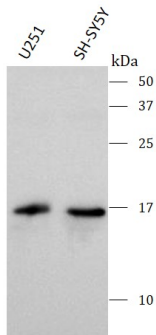
ARG44216 anti-NCBP2 antibody IHC-P image

Immunohistochemistry: Human bladder urothelial carcinoma stained with ARG44216 anti-NCBP2 antibody at 2 µg/mL dilution.



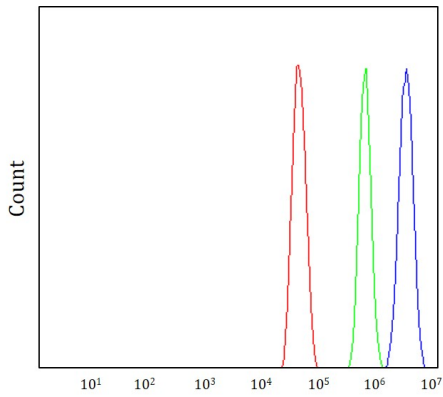
#### ARG44216 anti-NCBP2 antibody ICC/IF image

Immunofluorescence: A549 stained with ARG44216 anti-NCBP2 antibody at 5  $\mu\text{g}/\text{mL}$  dilution.



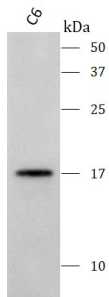
#### ARG44216 anti-NCBP2 antibody WB image

Western blot: U251 and SH-SY5Y stained with ARG44216 anti-NCBP2 antibody at 0.25  $\mu\text{g}/\text{mL}$  dilution.



#### ARG44216 anti-NCBP2 antibody FACS image

Flow Cytometry: U251 stained with ARG44216 anti-NCBP2 antibody at 1  $\mu\text{g}/1 \times 10^6$  cells dilution.

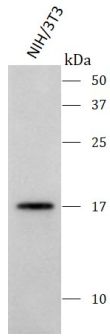


#### ARG44216 anti-NCBP2 antibody WB image

Western blot: C6 stained with ARG44216 anti-NCBP2 antibody at 0.25  $\mu\text{g}/\text{mL}$  dilution.

#### ARG44216 anti-NCBP2 antibody WB image

Western blot: NIH/3T3 stained with ARG44216 anti-NCBP2 antibody at 0.25  $\mu\text{g}/\text{mL}$  dilution.



#### ARG44216 anti-NCBP2 antibody IHC-P image

Immunohistochemistry: Human adrenocortical adenoma stained with ARG44216 anti-NCBP2 antibody at 2  $\mu\text{g}/\text{mL}$  dilution.

