

ARG45773 anti-CBP80 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CBP80
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CBP80
Species	Human
Immunogen	Recombinant protein containing to human CBP80.
Conjugation	Un-conjugated
Alternate Names	NCBP1; Nuclear Cap Binding Protein Subunit 1; CBP80; Sto1; NCBP; Nuclear Cap Binding Protein Subunit 1, 80kDa; Nuclear Cap-Binding Protein Subunit 1; 80 KDa Nuclear Cap-Binding Protein; NCBP 80 KDa Subunit; Nuclear Cap Binding Protein Subunit 1, 80kD

Application Instructions

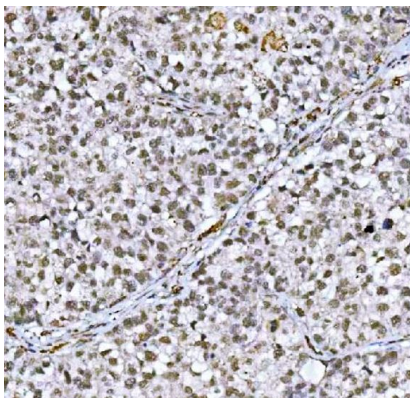
Application table	Application	Dilution
	FACS	1 - 3 µg/10 ⁶ cells
	ICC/IF	5 µg/ml
	IHC-P	2-5 µg/ml
	WB	0.25-0.5 µg/ml
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

Form	Liquid
Purification	Affinity purified
Buffer	0.2% Na ₂ HPO ₄ , 0.9% NaCl and 4% Trehalose.
Stabilizer	4% Trehalose
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.

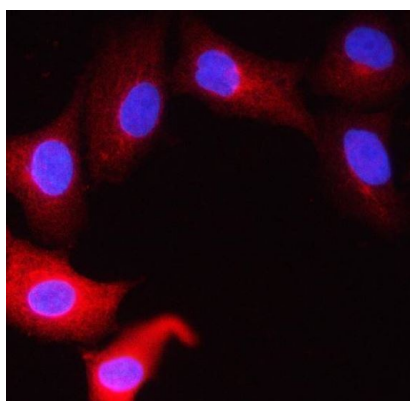
Bioinformation

Gene Symbol	NCBP1
Gene Full Name	Nuclear Cap Binding Protein Subunit 1
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 promotes high-affinity mRNA-cap binding and associates with the CTD of RNA polymerase II. The CBC promotes pre-mRNA splicing, 3'-end processing, RNA nuclear export, and nonsense-mediated mRNA decay. [provided by RefSeq, Jul 2008]
Function	Component of the cap-binding complex (CBC), which binds cotranscriptionally 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 and is 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, NCBP1/CBP80 does not bind directly capped RNAs (m7GpppG-capped RNA) but is required to stabilize the movement of the N-terminal loop of NCBP2/CBP20 and lock the CBC into a high affinity cap-binding state with the cap structure. Associates with NCBP3 to form an alternative cap-binding complex (CBC) which plays a key role in mRNA export and is particularly important in cellular stress situations such as virus infections. The conventional CBC with NCBP2 binds both small nuclear RNA (snRNA) and messenger (mRNA) and is involved in their export from the nucleus whereas the alternative CBC with NCBP3 does not bind snRNA and associates only with mRNA thereby playing a role only in mRNA export. NCBP1/CBP80 is required for cell growth and viability. [UniProt]
Calculated Mw	92 kDa
PTM	Acetylation; Isopeptide bond; Phosphoprotein; Ubl conjugation. [UniProt]
Cellular Localization	Cytoplasm; Nucleus. [UniProt]



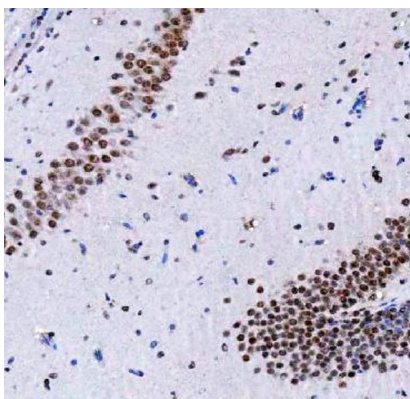
ARG45773 anti-CBP80 antibody IHC-P image

Immunohistochemistry: Human lung cancer stained with ARG45773 anti-CBP80 antibody at 2 µg/ml dilution.



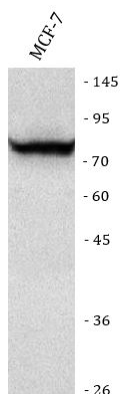
ARG45773 anti-CBP80 antibody ICC/IF image

Immunofluorescence: A549 stained with ARG45773 anti-CBP80 antibody at 5 µg/ml dilution.



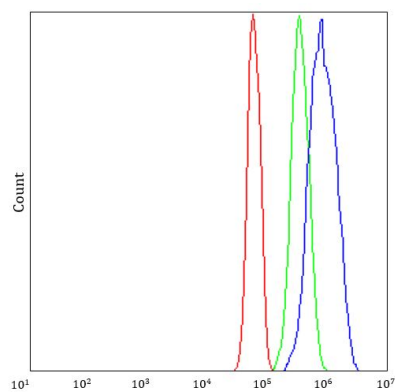
ARG45773 anti-CBP80 antibody IHC-P image

Immunohistochemistry: Mouse brain stained with ARG45773 anti-CBP80 antibody at 2 µg/ml dilution.



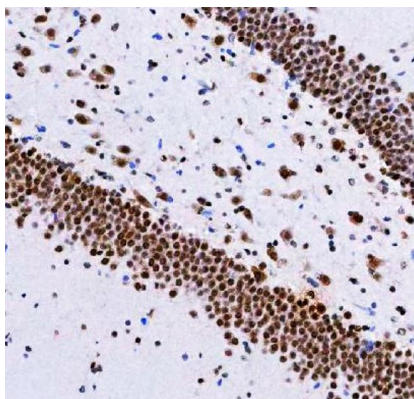
ARG45773 anti-CBP80 antibody WB image

Western blot: MCF-7 stained with ARG45773 anti-CBP80 antibody at 0.5 µg/ml dilution.



ARG45773 anti-CBP80 antibody FACS image

Flow Cytometry: JK stained with ARG45773 anti-CBP80 antibody at $1 \mu\text{g}/10^6$ cells dilution.



ARG45773 anti-CBP80 antibody IHC-P image

Immunohistochemistry: Rat brain hippocampus stained with ARG45773 anti-CBP80 antibody at $2 \mu\text{g}/\text{ml}$ dilution.