abcam

ab79698

Anti-COPS3/CSN3 antibody [EPR3127]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR3127
Purification technique	Affinity purification Protein A
Concentration	0.237 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/10000 - 1/20000
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/250 - 1/500
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information COPS3

Function	Component of the COP9 signalosome complex (CSN), a complex involved in various cellular and developmental processes. The CSN complex is an essential regulator of the ubiquitin (Ubl) conjugation pathway by mediating the deneddylation of the cullin subunits of SCF-type E3 ligase complexes, leading to decrease the Ubl ligase activity of SCF-type complexes such as SCF, CSA or DDB2. The complex is also involved in phosphorylation of p53/TP53, c-jun/JUN, IkappaBalpha/NFKBIA, ITPK1 and IRF8/ICSBP, possibly via its association with CK2 and PKD kinases. CSN-dependent phosphorylation of TP53 and JUN promotes and protects degradation by the Ubl system, respectively.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	COPS3 also known as CSN3 or COP9 forms a component of the COP9 signalosome complex. It weighs around 53 kDa. COPS3 is mainly expressed in the cytoplasm of cells in various tissues including the brain heart and skeletal muscle. As part of the signalosome COPS3 plays a role in cellular and molecular processes by influencing protein levels through deneddylation.
Biological function summary	The COPS3/CSN3 protein functions as part of the COP9 signalosome complex which acts in regulating the ubiquitin-proteasome pathway. This complex is involved in mediating the stability and degradation of key regulatory proteins by removing NEDD8 from cullin-RING ligases. By modulating these ligases COPS3 affects protein turnover and signaling pathways essential for cell cycle control and DNA damage response.
Pathways	COPS3/CSN3 takes part in the ubiquitin-proteasome pathway and the DNA damage response pathway. By regulating cullin-RING E3 ubiquitin ligases it influences the degradation of proteins involved in these pathways like p27 and CDT1. Interacting with proteins such as CUL1 and CUL3 COPS3 assists in maintaining cellular homeostasis by ensuring timely protein degradation.
Associated diseases and disorders	Defects or dysregulation of COPS3 have links to cancer and neurodegenerative diseases. Its role in cancer involves connection to known proteins like p27 where altered protein turnover can lead to unchecked cell proliferation. In neurodegenerative diseases the connection lies with the UPS (ubiquitin-proteasome system) dysfunction affecting protein aggregation processes seen in disorders like Parkinson's disease.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

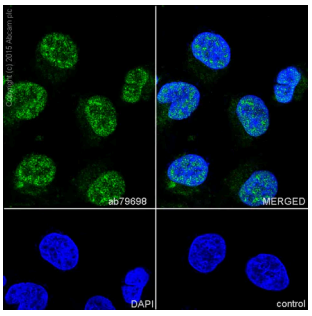
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

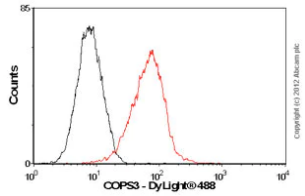
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-COPS3/CSN3 antibody [EPR3127] (ab79698)

COPS3/CSN3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-COPS3/CSN3 antibody

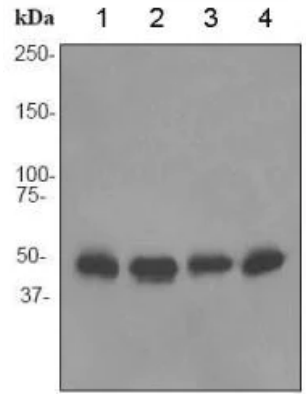
Immunofluorescence staining of HeLa cells with purified ab79698 at a working dilution of 1/500, counter-stained with DAPI. The secondary antibody was an Alexa Fluor® 488 conjugated goat anti-rabbit (ab150077), used at a dilution of 1/1000. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative control is shown in bottom right hand panel - for the negative control, PBS was used instead of the primary antibody.



Flow Cytometry (Intracellular) - Anti-COPS3/CSN3 antibody [EPR3127] (ab79698)

COPS3/CSN3 Flow Cytometry (Intracellular) staining using rabbit Anti-COPS3/CSN3 antibody

Overlay histogram showing HeLa cells stained with ab79698 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab79698, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-COPS3/CSN3 antibody [EPR3127] (ab79698)

COPS3/CSN3 Western blot staining using rabbit Anti-COPS3/CSN3 antibody

All lanes:
Western blot - Anti-COPS3/CSN3 antibody [EPR3127] (ab79698) at 1/20000 dilution

Lane 1:
HT-29 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
SKBR-3 cell lysate at 10 µg

Lane 4:

293T cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 48 kDa

Observed band size: 48 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.