abcam

ab75781

Anti-UBF1 antibody [EP2741Y]

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	EP2741Y
Purification technique	Affinity purification Protein A
Concentration	0.127 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/500
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/30 - 1/50
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information UBTF

Function	Recognizes the ribosomal RNA gene promoter and activates transcription mediated by RNA polymerase I (Pol I) through cooperative interactions with the transcription factor SL1/TIF-IB complex. It binds specifically to the upstream control element and can activate Pol I promoter escape.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.

Please contact us for more information.

Supplementary info

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

Activity summary	UBF1 also known as Upstream Binding Factor 1 is a transcription factor with a mass of approximately 97 kDa. It plays a mechanical role in facilitating the transcription of ribosomal RNA (rRNA) by binding to the core promoter element of rRNA genes. This action stimulates the recruitment of RNA polymerase I to the rDNA promoter site. UBF1 expresses in the nucleolus of eukaryotic cells where it functions as part of a nucleolar complex. Its presence is important for the structural organization and function of the nucleolus.
Biological function summary	UBF1 is essential for the regulation of ribosomal biogenesis. It binds to the rDNA enhancer and the rDNA promoter as part of the transcription initiation complex helping to modulate the synthesis of rRNA. UBF1 works synergistically with other nucleolar proteins such as SL1 and TIF-IA. This complex behavior influences cellular growth and proliferation. The interaction of UBF1 acting either alone or in combination with factors like SL1 controls the transcription rate of rRNA impacting the overall protein synthesis capacity of the cell.
Pathways	UBF1 plays a significant role in the cellular growth and ribosome biogenesis pathways due to its fundamental participation in rRNA transcription. It interacts closely with components of the RNA polymerase I transcription machinery. UBF1 also links to the mTOR signaling pathway which is pivotal for cell growth regulation. Interactions with other proteins such as RRN3 help mediate the link between transcriptional regulation by UBF1 and these broader signaling pathways.
Associated diseases and disorders	UBF1 links to various pathological conditions especially cancer and growth disorders. Aberrations in UBF1 expression or function can lead to unchecked cellular proliferation and tumorigenesis as seen in certain types of cancer. Its connection to the rRNA synthesis pathway implicates it in growth disorders associated with defective ribosome production. Altered interactions between UBF1 and other proteins like p53 play a role in these disease states either by disrupting normal cell cycle control or by enabling the continued presence of harmful mutations.

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

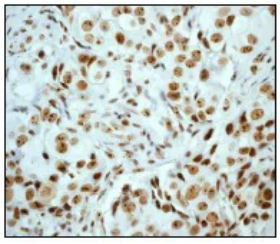
We do not recommend this combination. It is not covered by our product promise.

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.

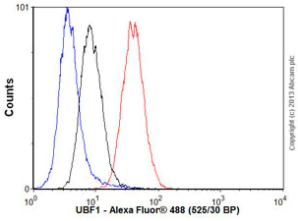
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UBF1 antibody [EP2741Y] (ab75781)

UBF1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-UBF1 antibody

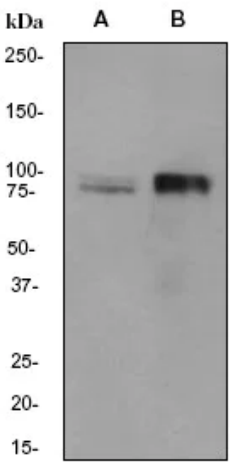
Immunohistochemical analysis of paraffin-embedded human breast carcinoma using ab75781 at 1/100-1/250 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-UBF1 antibody [EP2741Y] (ab75781)

UBF1 Flow Cytometry (Intracellular) staining using rabbit Anti-UBF1 antibody

Overlay histogram showing A431 cells stained with ab75781 (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 (ab75781, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 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. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-UBF1 antibody [EP2741Y] (ab75781)

All lanes:
Western blot - Anti-UBF1 antibody [EP2741Y] (ab75781) at 1/500 dilution

Lane 1:
molecular weight marker at 10 µg

Lane 2:
mouse liver lysate at 40 µg

Secondary

Lane 1:
HRP labelled goat anti-rabbit at 1/50000 dilution

Lane 2:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 89 kDa

Observed band size: 89 kDa

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