abcam

ab57494

Anti-TAF7 antibody [2C5]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.4
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human TAF7 aa 100-250. The exact immunogen used to generate this antibody is proprietary information. Database link Q15545
Clone number	2C5
Purity	Tissue culture supernatant
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information TAF7

Function	The TFIID basal transcription factor complex plays a major role in the initiation of RNA polymerase II (Pol II)-dependent transcription (PubMed:33795473). TFIID recognizes and binds promoters with or without a TATA box via its subunit TBP, a TATA-box-binding protein, and promotes assembly of the pre-initiation complex (PIC) (PubMed:33795473). The TFIID complex consists of TBP and TBP-associated factors (TAFs), including TAF1, TAF2, TAF3, TAF4, TAF5, TAF6, TAF7, TAF8, TAF9, TAF10, TAF11, TAF12 and TAF13 (PubMed:10438527, PubMed:33795473). TAF7 forms a promoter DNA binding subcomplex of TFIID, together with TAF1 and TAF2 (PubMed:33795473). Part of a TFIID complex containing TAF10 (TFIID alpha) and a TFIID complex lacking TAF10 (TFIID beta) (PubMed:10438527).

Storage

Shipped at conditions	Blue Ice
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

This product was changed from ascites to tissue culture supernatant on 12th June 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

Supplementary info

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

Activity summary	TAF7 also known as transcription initiation factor TFIID subunit 7 plays a critical role in transcription initiation. This protein is approximately 61 kDa in mass. TAF7 is a component of the TFIID complex which is important in assembling the pre-initiation complex necessary for RNA polymerase II to initiate transcription. TAF7 expression is widespread with high expression levels observed in various tissues including the liver and muscle.
Biological function summary	TAF7 functions as an integral part of the TFIID complex. The TFIID complex consisting of TATA-binding protein (TBP) and multiple TBP-associated factors (TAFs) is essential for the accurate transcription of genes by RNA polymerase II. TAF7 influences the assembly and stability of the TFIID complex thereby affecting the transcriptional regulation. It not only interacts directly with other TAFs such as TAF1 and TAF5 but also serves as a regulatory checkpoint in the transition from transcription initiation to elongation.
Pathways	The TAF7 protein acts significantly within the transcription initiation pathway. This pathway is vital for the expression of eukaryotic genes. TAF7 through its interaction with TAF1 and other TAFs contributes to the formation of the pre-initiation complex. By doing so it ensures the proper positioning of RNA polymerase II and the commencement of mRNA synthesis. It also plays a role in pathways controlling cell cycle regulation and development by influencing gene expression critical for growth and cellular responses.
Associated diseases and disorders	Altered expression or mutations in TAF7 are linked to specific cancers like hepatocellular carcinoma demonstrating its importance in cell proliferation and survival. Furthermore due to its role in gene regulation TAF7 abnormalities can relate to neurodevelopmental disorders. Proteins such as TAF1 have shown connections to disorders linked to transcriptional dysregulation highlighting the interconnected nature of transcription components like TAF7 in various pathological conditions.

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.

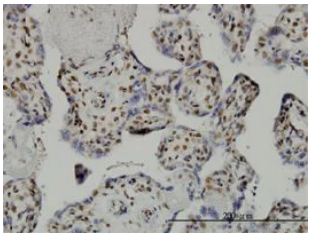
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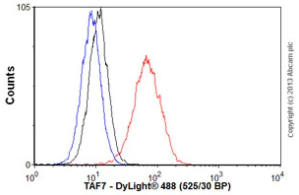
5 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TAF7 antibody [2C5] (ab57494)

TAF7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-TAF7 antibody

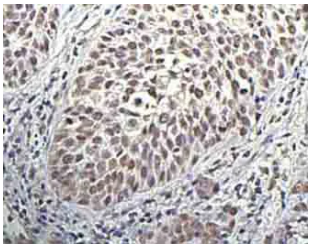
TAF7 antibody (ab57494) used in immunohistochemistry at 1ug/ml on formalin fixed and paraffin embedded human lymph node.
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-TAF7 antibody [2C5] (ab57494)

TAF7 Flow Cytometry staining using mouse Anti-TAF7 antibody

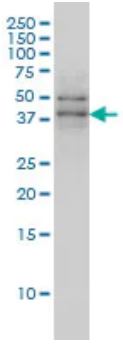
Overlay histogram showing HeLa cells stained with ab57494 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab57494, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 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.
This image was generated using the ascites version of the product.



This image was kindly supplied by Dr Karin Birkenkamp-Demtroeder by customer review

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TAF7 antibody [2C5] (ab57494)

ab57494 staining TAF7 in human bladder cancer tissue sections by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). Tissue was fixed with formaldehyde and a heat mediated antigen retrieval step was performed using TEG. Samples were then blocked with 1% serum for 1 hour at room temperature followed by incubation with the primary antibody at a 1/3500 dilution for 1 hour. An undiluted HRP-conjugated goat anti-mouse IgG polyclonal was used as secondary antibody.
This image was generated using the ascites version of the product.



Western blot - Anti-TAF7 antibody [2C5] (ab57494)

TAF7 Western blot staining using mouse Anti-TAF7 antibody

TAF7 antibody (ab57494) at 1ug/lane + MCF-7 cell lysate at 25ug/lane.
This image was generated using the ascites version of the product.

All lanes:
Western blot - Anti-TAF7 antibody [2C5] (ab57494)

Predicted band size: 40 kDa

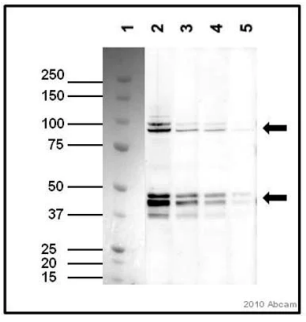


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Western blot - Anti-TAF7 antibody [2C5] (ab57494)

Lane 1: All Blue Biorad.Gel run under denaturing conditions with a 4-12% gradient.Blocking step performed using 5% milk for one hour at room temperature.Primary antibody incubated for 16 hours.
This image was generated using the ascites version of the product.

Lane 2:
Western blot - Anti-TAF7 antibody [2C5] (ab57494) at 1/1250 dilution

Lane 3:
Western blot - Anti-TAF7 antibody [2C5] (ab57494) at 1/2500 dilution

Lane 4:
Western blot - Anti-TAF7 antibody [2C5] (ab57494) at 1/5000 dilution

Lane 5:
Western blot - Anti-TAF7 antibody [2C5] (ab57494) at 1/10000 dilution

All lanes:
whole cell lysate prepared from SW780 badder cancer cells at 25 µg

Secondary

All lanes:
Goat anti-mouse IgG conjugated to HRP

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 40 kDa

Observed band size: 40 kDa, 90 kDa

Exposure time: 10min

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