abcam

ab242405

Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR14821
Purification technique	Affinity purification Protein A

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Human, Transfected cell lysate
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human

Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

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

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate
Dilution info	-

Notes	-

Target data

See full target information TCEA1

Function	Necessary for efficient RNA polymerase II transcription elongation past template-encoded arresting sites. The arresting sites in DNA have the property of trapping a certain fraction of elongating RNA polymerases that pass through, resulting in locked ternary complexes. Cleavage of the nascent transcript by S-II allows the resumption of elongation from the new 3'-terminus.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab242405 is the carrier-free version of ab185947.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	TCEA1 also known as transcription elongation factor A protein 1 or TFIIS plays a mechanical role in the process of transcription elongation. This protein has a molecular mass of approximately 34 kDa. TCEA1 is expressed in a wide range of tissues indicating a broad involvement in cellular functions. During transcription elongation TCEA1 interacts with RNA polymerase II helping to reactivate stalled enzyme complexes by promoting cleavage of backtracked RNA which is essential to maintain transcription fidelity.
Biological function summary	TCEA1 is important for the proper regulation and efficiency of gene expression. It is not part of a large complex but interacts specifically with RNA polymerase II to facilitate transcript elongation. Without TCEA1 cells may experience transcription arrest either temporarily or permanently which can lead to aberrant gene expression profiles. It ensures continuity in transcription so that the full-length RNA transcripts are synthesized without interruption which is necessary for correct cellular function.
Pathways	TCEA1 plays an indispensable role in the transcription machinery pathway and is closely related to components like RNA polymerase II and TFIIH within the transcription cycle. It is also connected to the DNA damage response pathways because it allows resumption of transcription after damage repair. These pathways maintain cellular homeostasis and balance gene expression to adapt to cellular needs and external signals. Together with other transcription factors TCEA1 ensures transcriptional regulation in response to cellular stimuli.
Associated diseases and disorders	TCEA1 is implicated in transcription-related diseases such as neurodegenerative disorders and cancer. Mutations or dysregulation of TCEA1 can lead to impaired transcription which often results in cellular malfunction and disease progression. It is associated with proteins like p53 in cancer pathways where transcription arrest and restart mechanisms play a critical part in controlling cell growth and apoptosis. In neurodegenerative diseases disruption of transcriptional processes leads to neuronal cell damage and death contributing to the pathogenesis of these disorders. Understanding the role of TCEA1 in these pathways provides critical insights into potential therapeutic targets.

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.

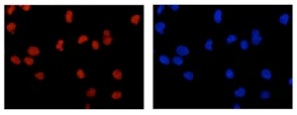
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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6 product images

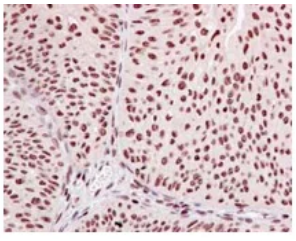


Immunocytochemistry/ Immunofluorescence - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

TCEA1 + TCEA2 + TCEA3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TCEA1 + TCEA2 + TCEA3 antibody

Immunofluorescent staining of 4% paraformaldehyde fixed HUVEC cells labeling TCEA1 + TCEA2 + TCEA3 with ab185947 at 1/500 dilution (red; left image) and DAPI nuclear staining (blue; right image). Secondary staining with Goat anti Rabbit IgG (Alexa Fluor® 555) at a 1/200 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947)

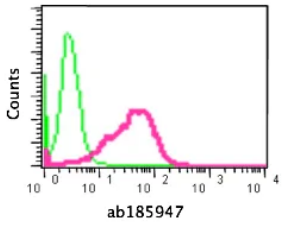


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

TCEA1 + TCEA2 + TCEA3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-TCEA1 + TCEA2 + TCEA3 antibody

Immunohistochemical analysis of paraffin embedded Human bladder transitional cell carcinoma tissue labeling TCEA1 + TCEA2 + TCEA3 with ab185947 at 1/500 dilution. Counterstained with Hematoxylin.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947)

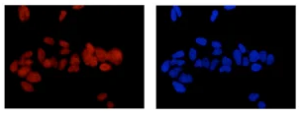
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

TCEA1 + TCEA2 + TCEA3 Flow Cytometry (Intracellular) staining using rabbit Anti-TCEA1 + TCEA2 + TCEA3 antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde HeLa cells labeling TCEA1 + TCEA2 + TCEA3 with ab185947 at 1/250 dilution (red) compared to a Rabbit monoclonal IgG isotype control antibody (green). Secondary staining with Goat anti Rabbit IgG (FITC) at a 1/150 dilution. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947)

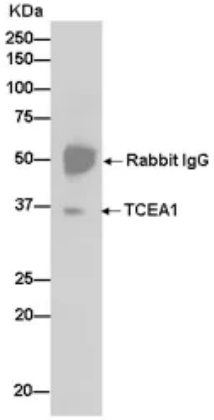


Immunocytochemistry/ Immunofluorescence - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

TCEA1 + TCEA2 + TCEA3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-TCEA1 + TCEA2 + TCEA3 antibody

Immunofluorescent staining of -20 °C acetone fixed HeLa cells labeling TCEA1 + TCEA2 + TCEA3 with ab185947 at 1/500 dilution (red; left image) and DAPI nuclear staining (blue; right image). Secondary staining with Goat anti Rabbit IgG (Alexa Fluor® 555) at a 1/200 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947)



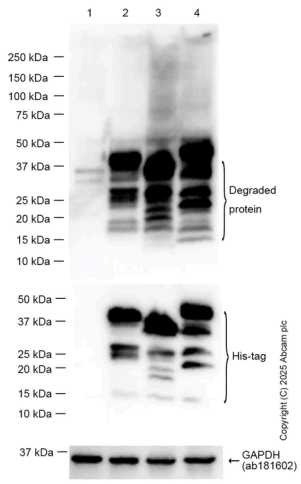
Immunoprecipitation - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

Immunoprecipitation analysis of HeLa cell lysate labeling TCEA1 + TCEA2 + TCEA3 with ab185947 at 1/50 dilution. Secondary staining with Goat anti Rabbit IgG (H+L) Peroxidase conjugated antibody at a 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947)

All lanes:
Immunoprecipitation - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] (ab185947)

Predicted band size: 33 kDa



Western blot - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] - BSA and Azide free (ab242405)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab185947) Blocking and diluting buffer and concentration: 5% NFDM /TBST. ab181602 was used as a GAPDH loading control.
All lanes:
Western blot - Anti-TCEA1 + TCEA2 + TCEA3 antibody [EPR14821] (ab185947) at 1/10000 dilution

Lane 1:
293T (Human embryonic kidney epithelial cell) + OE-empty whole cell lysate at 20 µg

Lane 2:
293T (Human embryonic kidney epithelial cell) + OE-TCEA1 whole cell lysate at 20 µg

Lane 3:
293T (Human embryonic kidney epithelial cell) + OE-TCEA2 whole cell lysate at 20 µg

Lane 4:
293T (Human embryonic kidney epithelial cell) + OE-TCEA3 whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 34-39 kDa

Observed band size: 34-39 kDa

Exposure time: 1s

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