abcam

ab300417

Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free)

Recombinant | RabMAb | Advanced Validation

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	EPR25259-176
Purification technique	Affinity purification Protein A
Concentration	1.039 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IHC-P

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

Expected

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

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human, Mouse
Dilution info	-

Notes	-

Expected

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

IP

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

ChIP-seq

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information IKZF1

Function	Transcription regulator of hematopoietic cell differentiation (PubMed:17934067). Binds gamma-satellite DNA (PubMed:17135265, PubMed:19141594). Plays a role in the development of lymphocytes, B- and T-cells. Binds and activates the enhancer (delta-A element) of the CD3-delta gene. Repressor of the TDT (fikzfterminal deoxynucleotidyltransferase) gene during thymocyte differentiation. Regulates transcription through association with both HDAC-dependent and HDAC-independent complexes. Targets the 2 chromatin-remodeling complexes, NuRD and BAF (SWI/SNF), in a single complex (PYR complex), to the beta-globin locus in adult erythrocytes. Increases normal apoptosis in adult erythroid cells. Confers early temporal competence to retinal progenitor cells (RPCs) (By similarity). Function is isoform-specific and is modulated by dominant-negative inactive isoforms (PubMed:17135265, PubMed:17934067).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab300417 is a carrier free version of ab300405.

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.

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.

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	Ikaros also known as IKZF1 is a transcription factor. You also find it being referred to as the Ikaros protein or Ikaros code. It has a molecular mass of about 58-60 kDa. Ikaros expresses mostly in hematopoietic cells including precursors from which various blood cell types derive. It plays a significant role in regulating gene expression and cellular differentiation modulating the chromatin structure to control access to DNA.
Biological function summary	Ikaros protein functions in the regulation of lymphoid cell development. It is a part of a chromatin-remodeling complex influencing chromatin accessibility. Through its zinc finger domains it binds to specific DNA sequences controlling genes necessary for lymphocyte differentiation and proliferation. Ikaros influences various cell types within the immune system especially affecting T and B cell development and also regulates cytokine receptor genes necessary for proper immune function.
Pathways	The Ikaros protein is critical to lymphocyte signaling pathways particularly the JAK/STAT and NF-κB pathways. In these pathways Ikaros interacts with other transcription factors like GATA3 and STAT5 integrating signals that are important for immune cell function and development. This integration allows a coordinated response to extracellular signals ensuring effective immune responses or tolerance.
Associated diseases and disorders	Ikaros is associated with leukemia and lymphomas. Alterations or mutations in ikaros gene can lead to misregulation of its target genes contributing to the development of these diseases by disturbing normal hematopoietic processes. Moreover its interaction with TAL1 protein is significant in certain leukemias where disturbances in the balance of their activities can lead to malignancies. Understanding Ikaros's role provides insights for therapeutic approaches in these blood disorders.

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.

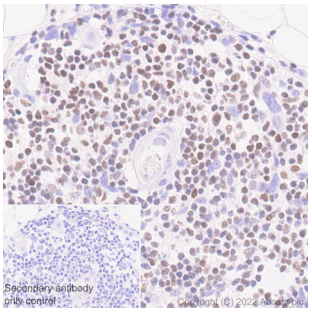
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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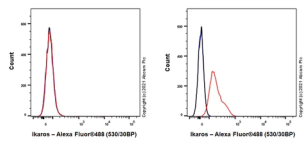
18 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

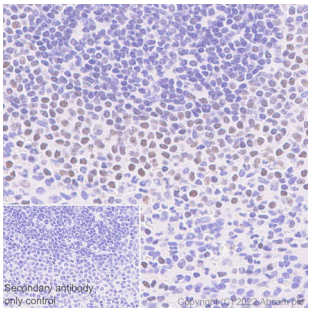
This data was developed using ab300405, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human thymus tissue labeling Ikaros with ab300405 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used. Nuclear staining on human thymus (PMID: 8964602).The section was incubated with ab300405 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins

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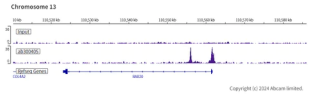
Flow Cytometry (Intracellular) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation.Flow cytometric analysis of HeLa (human cervix adenocarcinoma epithelial cell, Left) / Jurkat (human T cell leukemia T lymphocyte, Right) cells labelling Ikaros with ab300405 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Negative control: HeLa(HPA data)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

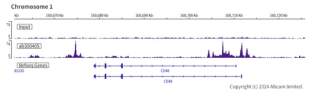
This data was developed using ab300405, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling Ikaros with ab300405 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used. Nuclear staining on human spleen (PMID: 8964602).The section was incubated with ab300405 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



ChIP-sequencing - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using the same antibody clone in a different buffer formulation (ab300405).

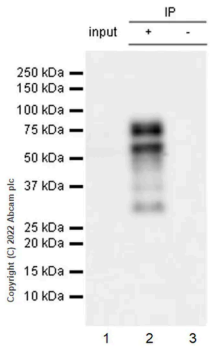
Chromatin was prepared from Raji cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 10^7 cells and 8 µg of ab300405 [EPR25259-176]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads. The input control is also shown.



ChIP-sequencing - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using the same antibody clone in a different buffer formulation (ab300405).

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Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation.
Ikaros was immunoprecipitated from 0.35 mg Raji (human burkitt's lymphoma b lymphocyte) whole cell lysate 10 ug with ab300405 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab300405 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: Raji (human burkitt's lymphoma b lymphocyte) whole cell lysate 10 ug

Lane 2: ab300405 IP in Raji whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab300405 in Raji whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 8 seconds.

Lanes 1 - 3:
Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (ab300405) at 1/1000 dilution

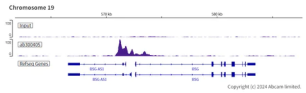
Lanes 1 - 3:
Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

All lanes:
Raji whole cell lysate at 10 µg

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

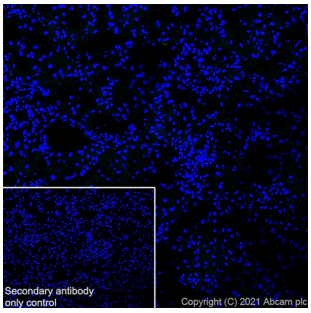
Exposure time: 8s



ChIP-sequencing - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

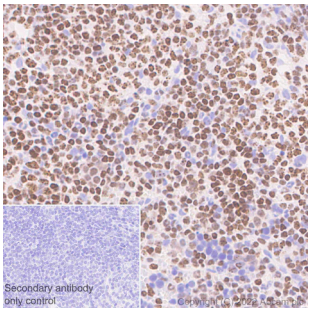
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Chromatin was prepared from Raji cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 10^7 cells and 8 µg of ab300405 [EPR25259-176]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads. The input control is also shown.



Immunohistochemistry (Frozen sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

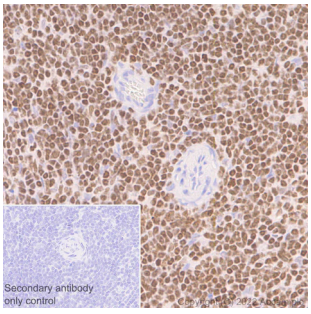
This data was developed using ab300405, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat kidney (fresh) tissue labeling Ikaros with ab300405 at 1/100 (5.39 ug/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution (Green). Negative control (PMID: 1439790)No staining on rat kidney is observed. The nuclear counterstain was DAPI (Blue). Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

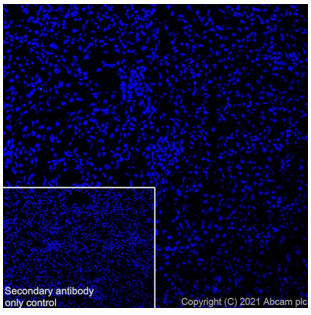
Ikaros Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse spleen using rabbit Anti-Ikaros antibody

This data was developed using ab300405, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling Ikaros with ab300405 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used. Nuclear staining on mouse spleen.The section was incubated with ab300405 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



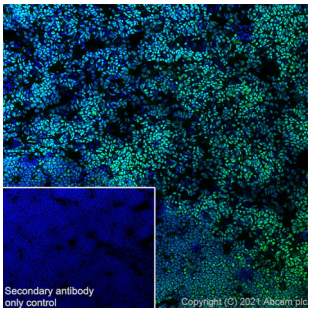
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling Ikaros with ab300405 at 1/2000 (0.27 ug/ml) followed by a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used. Nuclear staining on rat spleen.The section was incubated with ab300405 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond☒ Polymer Refine Detection) was used.Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Frozen sections) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

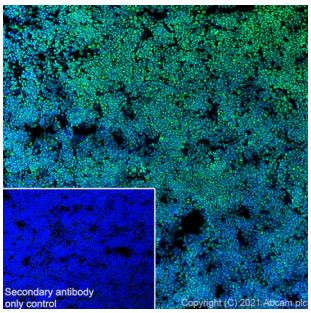
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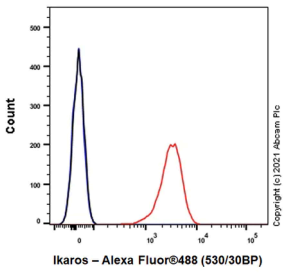
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(Blue). Secondary antibody control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



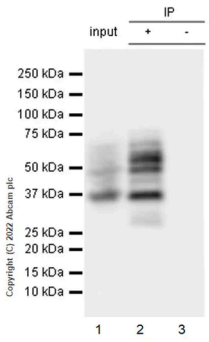
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Flow Cytometry (Intracellular) - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation.Flow cytometric analysis of EL4 (mouse lymphoma T lymphocyte) cells labelling Ikaros with ab300405 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation.
Ikaros was immunoprecipitated from 0.35 mg EL4 (mouse lymphoma t lymphocyte) whole cell lysate 10 ug with ab300405 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab300405 at 1/1000 dilution. VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.

Lane 1: EL4 (mouse lymphoma t lymphocyte) whole cell lysate 10 ug

Lane 2: ab300405 IP in EL4 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab300405 in EL4 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 8 seconds.

Lanes 1 - 3:
Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (ab300405) at 1/1000 dilution

Lanes 1 - 3:
Immunoprecipitation - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

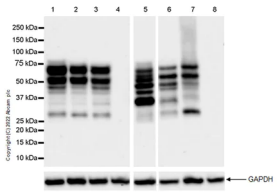
All lanes:
EL4 whole cell lysate at 10 µg

Secondary

All lanes:

Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 8s



Western blot - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation. Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-Ikaros antibody [EPR25259-176] (ab300405) at 1/1000 dilution

Lane 1:
Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate

Lane 2:
Raji (human burkitts lymphoma b lymphocyte) whole cell lysate

Lane 3:
Daudi (human burkitts lymphoma lymphoblast) whole cell lysate

Lane 4:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 5:
EL4 (mouse lymphoma t lymphocyte) whole cell lysate

Lane 6:
Mouse spleen tissue lysate

Lane 7:
Mouse thymus tissue lysate

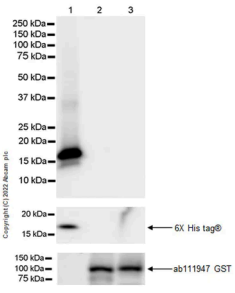
Lane 8:
Mouse kidney tissue lysate

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Performed under reducing conditions.

Observed band size: 30 kDa, 70 kDa



Western blot - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation. Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-Ikaros antibody [EPR25259-176] (ab300405) at 1/1000 dilution

Lane 1:
His-tagged human Ikaros/IKZF1 recombinant protein

Lane 2:
GST-tagged human Helios/IKZF2 recombinant protein

Lane 3:
GST-tagged human Aiolos/IKZF3 recombinant protein

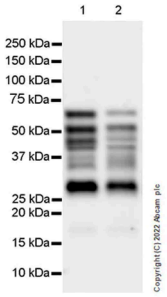
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Performed under reducing conditions.

Observed band size: 16 kDa

Exposure time: 3s



Western blot - Anti-Ikaros antibody [EPR25259-176] (BSA and Azide free) (ab300417)

This data was developed using ab300405, the same antibody clone in a different buffer formulation. Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-Ikaros antibody [EPR25259-176] (ab300405) at 1/1000 dilution

Lane 1:
Rat thymus tissue lysate

Lane 2:
Rat spleen tissue lysate

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Performed under reducing conditions.

Observed band size: 30 kDa, 70 kDa

Exposure time: 70s

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