abcam

ab223265

Anti-NR2F6/EAR-2 antibody [EPR22260]

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	EPR22260
Purification technique	Affinity purification Protein A
Concentration	0.487 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	-

Target data

See full target information NR2F6

Function Transcription factor predominantly involved in transcriptional repression. Binds to promoter/enhancer response elements that contain the imperfect 5'-AGGTCA-3' direct or inverted repeats with various spacings which are also recognized by other nuclear hormone receptors. Involved in modulation of hormonal responses.

Represses transcriptional activity of the lutropin-choriogonadotropic hormone receptor/LHCGR gene, the renin/REN gene and the oxytocin-neurophysin/OXT gene. Represses the triiodothyronine-dependent and -independent transcriptional activity of the thyroid hormone receptor gene in a cell type-specific manner. The corepressing function towards thyroid hormone receptor beta/THRB involves at least in part the inhibition of THRB binding to triiodothyronine response elements (TREs) by NR2F6. Inhibits NFATC transcription factor DNA binding and subsequently its transcriptional activity. Acts as transcriptional repressor of IL-17 expression in Th-17 differentiated CD4(+) T cells and may be involved in induction and/or maintenance of peripheral immunological tolerance and autoimmunity. Involved in development of forebrain circadian clock; is required early in the development of the locus coeruleus (LC).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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.

Supplementary info

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

Activity summary	NR2F6 also known as Ear-2 is an orphan nuclear receptor protein that plays a role as a transcription factor. It often weighs around 46 kDa and is expressed in various tissues including the immune cells and certain cancer cells. As a receptor it regulates gene expression by binding to specific DNA sequences affecting the transcription of genes involved in immune responses and development processes.
Biological function summary	NR2F6 acts as a negative regulator in Th17 cells and Treg cells suppressing the immune response. It does not form a well-defined complex but interacts with various co-repressors and co-activators to execute its function. Its activity impacts T cell activity and inflammatory responses indicating its role in immune modulation and homeostasis.
Pathways	NR2F6 participates in the immune signaling pathways and the development of Th17 cells. It influences the IL-17 signaling pathway by interacting with related proteins impacting the secretion of pro-inflammatory cytokines. Furthermore NR2F6 is associated with nuclear receptor pathways interacting with other transcription factors such as RORγt critical for immune cell differentiation.
Associated diseases and disorders	NR2F6 plays an important role in autoimmune diseases like arthritis and cancer progression. Its ability to modulate immune responses connects it to immune-related disorders where its overexpression may lead to uncontrolled inflammation. Additionally NR2F6 affects the expression of proteins such as PD-1 in cancers where its regulatory functions can alter tumor immunity and potentially affect cancer growth and treatment responses.

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

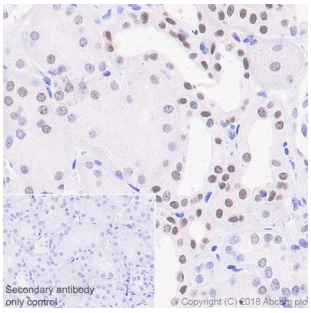
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

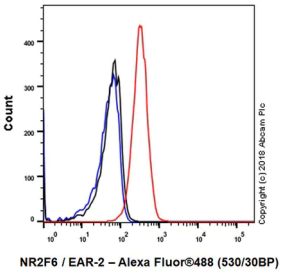


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

NR2F6/EAR-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NR2F6/EAR-2 antibody

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling NR2F6/EAR-2 with ab223265 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human kidney (PMID: 10713182). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

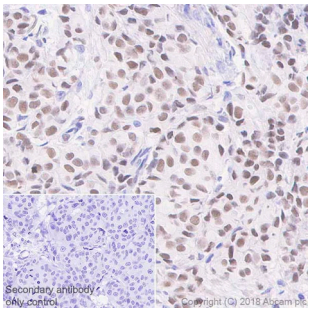
Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

NR2F6/EAR-2 Flow Cytometry (Intracellular) staining using rabbit Anti-NR2F6/EAR-2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed 90% methanol permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling NR2F6/EAR-2 with ab223265 at 1/40 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.

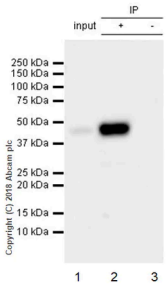


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

NR2F6/EAR-2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-NR2F6/EAR-2 antibody

Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue labeling NR2F6/EAR-2 with ab223265 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on human breast carcinoma (PMID: 27775588). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



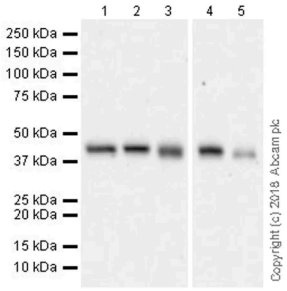
Immunoprecipitation - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

NR2F6/EAR-2 was immunoprecipitated from 0.35 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab223265 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab223265 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/5000 dilution.
Lane 1: HeLa whole cell lysate 10 µg (input).
Lane 2: ab223265 IP in HeLa whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab223265 in HeLa whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 30 seconds.

All lanes:
Immunoprecipitation - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

Predicted band size: 43 kDa



Western blot - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265)

NR2F6/EAR-2 Western blot staining using rabbit Anti-NR2F6/EAR-2 antibody

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-NR2F6/EAR-2 antibody [EPR22260] (ab223265) at 1/1000 dilution

Lane 1:
HeLa (human epithelial cell line from cervix adenocarcinoma), whole cell lysate at 20 µg

Lane 2:
HCT 116 (human colorectal carcinoma cell line), whole cell lysate at 20 µg

Lane 3:
HT-29 (human colorectal adenocarcinoma cell line), whole cell lysate at 20 µg

Lane 4:
HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen), whole cell lysate at 20 µg

Lane 5:
HepG2 (human liver hepatocellular carcinoma cell line), whole cell lysate at 20 µg

Secondary

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

Predicted band size: 43 kDa

Observed band size: 43 kDa

Exposure time: 3min

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