abcam

ab53490

Anti-PAX8 antibody [PAX8R1]

Anti-PAX8 antibody [PAX8R1] (ab53490) is a mouse monoclonal antibody detecting PAX8 in **Western Blot, Flow Cytometry, IP, IHC-P**. Suitable for **Human, Mouse, Rat**.

- Over 30 publications
- Trusted since 2007

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human PAX8. The exact immunogen used to generate this antibody is proprietary information. Database link Q06710
Clone number	PAX8R1
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

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

ICC

Tested

Species	Human
Dilution info	2-100 µg/mL
Notes	-

Expected

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

IP

Tested

Species	Human
Dilution info	-
Notes	1-5 µg/sample

Expected

Species	Mouse, Rat

Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	0.5-2 µg/sample ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

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

WB

Tested

Species	Mouse
Dilution info	0.2-2 µg/mL
Notes	-

Species	Rat
Dilution info	0.2-2 µg/mL
Notes	-

Species	Human
Dilution info	0.2-2 µg/mL
Notes	-

Target data

See full target information PAX8

Function	Transcription factor for the thyroid-specific expression of the genes exclusively expressed in the thyroid cell type, maintaining the functional differentiation of such cells.

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

What is this antibody validated in?
Anti-PAX8 antibody [PAX8R1] (ab53490) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P) in Human, Mouse, Rat samples.

What is the molecular weight of PAX8?
Anti-PAX8 [PAX8R1] (ab53490) specifically detects a band for PAX8 (UniProt: Q06710) at a molecular weight of 48kDa.

Trusted by the scientific community
Anti-PAX8 [PAX8R1] (ab53490) was first used in a scientific publication in 2007 and has been cited over 30 times in peer-reviewed journals.

Reviewed by scientists
Anti-PAX8 [PAX8R1] (ab53490) has over 5 independent reviews from customers.

Supplementary info

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

Activity summary	PAX8 also known as 3a8 is a transcription factor with a molecular mass of approximately 48 kDa. It belongs to the paired box (PAX) family of proteins which are characterized by a specific DNA-binding domain. PAX8 plays an important role in organ development and cellular differentiation. This protein is mainly expressed in the thyroid kidneys and Mьllerian-derived tissues. Researchers often detect

	PAX8 using immunohistochemistry (PAX8 IHC) techniques due to its tissue-specific expression patterns.
Biological function summary	The PAX8 protein regulates the expression of genes related to organogenesis and cell fate determination. It forms part of transcriptional regulatory complexes partnering with other proteins to modulate gene activity. PAX8 supports embryonic development especially in the thyroid and urogenital tract. Its presence ensures the proper function and formation of these organs highlighting its significance in developmental biology.
Pathways	PAX8 interacts with several key biological processes. It notably participates in the thyroid hormone synthesis pathway where it regulates the expression of thyroglobulin and thyroperoxidase. PAX8 also affects the renal system through its interaction with WT1 a protein involved in kidney development. These pathways illustrate PAX8's role in maintaining endocrine and renal functions by influencing important protein interactions.
Associated diseases and disorders	PAX8 mutations and dysregulation connect to conditions like congenital hypothyroidism and renal agenesis. In congenital hypothyroidism defects in PAX8 lead to impaired thyroid development affecting hormone production. Moreover its interaction with BCL2 an important apoptosis regulator relates to certain cancers such as ovarian carcinoma. The misregulation of PAX8 increases the risk and progression of these disorders by disrupting normal physiological processes.

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

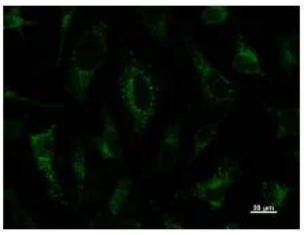
We do not recommend this combination. It is not covered by our product promise.

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:
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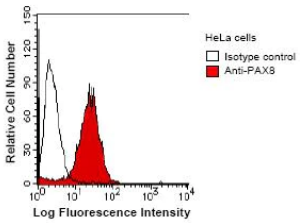
2 product images



Immunocytochemistry - Anti-PAX8 antibody [PAX8R1] (ab53490)

PAX8 Immunocytochemistry staining using mouse Anti-PAX8 antibody

ab53490, at a 1/10 dilution, staining PAX8 in HeLa cells, using Immunocytochemistry, plus AlexaFluor®488 Goat Anti-mouse IgG secondary anitbody.



Flow Cytometry - Anti-PAX8 antibody [PAX8R1] (ab53490)

PAX8 Flow Cytometry staining using mouse Anti-PAX8 antibody

HeLa cells were fixed in 2% paraformaldehyde/PBS and then permeabilized in 90% methanol. Cells were stained with ab53490 at 0.5 µg/sample (shaded) or isotype control (unshaded) followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG (0.25µg)

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