abcam

ab313345

Alexa Fluor® 647 Anti-PAX8 - N-terminal antibody [SP348]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP348
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
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 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, Store in the dark

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.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

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 Müllerian-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

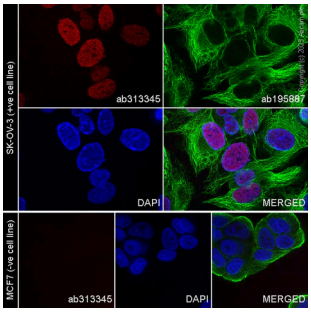
We do not recommend this combination. It is not covered by our product promise.

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:
Terms & Conditions.

1 product image



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-PAX8 - N-terminal antibody [SP348] (ab313345)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized SK-OV-3 (human ovarian cancer epithelial cell) cells labelling PAX8 with ab313345 at 1/50 (10.0 ug/ml) dilution. Confocal image showing nuclear staining in SK-OV-3 cells. Negative control: MCF7 (PMID:21602887). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). ab195887 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 488) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).

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