abcam

ab277104

Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human RXRB. Database link P28702
Clone number	PCRP-RXRB-2B6
Purification technique	Affinity purification Protein A/G
Concentration	0.2 - 0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from bioreactor concentrate

Reactivity data

ICC

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1-2 µg for 10^6 Cells
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Protein Array

Tested

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Human
Dilution info	1-2 µg/mL
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

Target data

See full target information RXRB

Function	Receptor for retinoic acid. Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9-cis retinoic acid, and regulate gene expression in various biological processes. The RAR/RXR heterodimers bind to the retinoic acid response elements (RARE).

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

Supplementary info

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

Activity summary	Retinoid X Receptor Beta (RXRB) also known as NR2B2 is a nuclear receptor with a molecular mass of approximately 54 kDa. This receptor is widely expressed in various tissues including liver kidney and muscle. RXRB functions as a ligand-activated transcription factor meaning it regulates gene expression in response to binding with specific ligands. It partners with other nuclear receptors to form heterodimers allowing it to bind with high affinity to response elements in DNA regulating a wide variety of genes important for metabolic processes.
Biological function summary	RXRB contributes significantly to the regulation of gene networks by forming heterodimers with other nuclear receptors like PPARs (Peroxisome Proliferator-Activated Receptors) and LXR (Liver X Receptor). These complexes enable RXRB to exert control over diverse biological functions such as lipid metabolism glucose homeostasis and detoxification processes. RXRB influences these processes by modulating the expression of genes involved in the synthesis transport and metabolism of lipids and glucose important for maintaining metabolic homeostasis.
Pathways	RXRB plays an integral role in the retinoic acid signaling pathway and the nuclear receptor signaling pathway. In the retinoic acid pathway RXRB partners with Retinoic Acid Receptors (RARs) to regulate transcription of target genes important for cell differentiation and proliferation. Within the nuclear receptor signaling pathway RXRB frequently interacts with proteins such as PPARs and LXRs impacting lipid metabolism by influencing adipogenesis and cholesterol transport. These interactions underline RXRB's central position in managing metabolic pathways.
Associated diseases and disorders	RXRB is linked to metabolic disorders including type 2 diabetes and dyslipidemia. Dysregulation of RXRB can lead to impaired lipid metabolism and insulin resistance impacting blood sugar and lipid profiles. The receptor interacts with PPARs in these conditions as they share regulatory roles in lipid and glucose metabolism. Additionally alterations in RXRB activity are linked to certain cancers with the receptor being part of pathways that regulate cell growth and differentiation. RXRB's role in these processes highlights its potential as a therapeutic target for managing metabolic diseases and cancer.

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

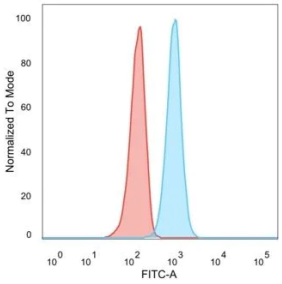
We do not recommend this combination. It is not covered by our product promise.

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.

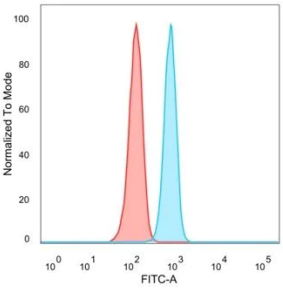
6 product images



Flow Cytometry - Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6] (ab277104)

Retinoid X Receptor beta/RXRB Flow Cytometry staining using mouse Anti-Retinoid X Receptor beta/RXRB antibody

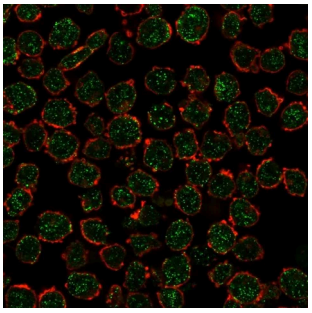
Flow cytometry analysis of PFA-fixed U87 (human glioblastoma-astrocytoma epithelial cell line) cells labeling Retinoid X Receptor beta/RXRB using ab277104 at 2 µg / 10^6 cells followed by goat anti-mouse IgG-CF488 (blue); unstained cells (red).



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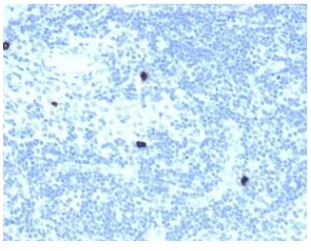
Flow cytometry analysis of PFA-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Retinoid X Receptor beta/RXRB using ab277104 at 2 µg / 10^6 cells followed by goat anti-mouse IgG-CF488 (blue); unstained cells (red).



Immunocytochemistry - Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6] (ab277104)

Retinoid X Receptor beta/RXRB Immunocytochemistry staining using mouse Anti-Retinoid X Receptor beta/RXRB antibody

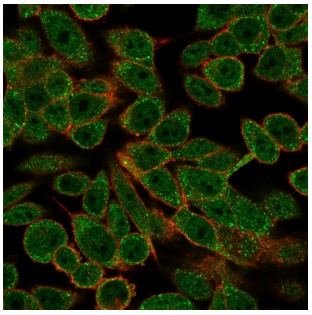
Immunofluorescence analysis of PFA-fixed K562 (human chronic myelogenous leukemia cell line from bone marrow) cells labeling Retinoid X Receptor beta/RXRB with ab277104 at 2 µg/ml, followed by goat anti-mouse IgG-CF488 (green); phalloidin counterstain (red).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6] (ab277104)

Retinoid X Receptor beta/RXRB Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Retinoid X Receptor beta/RXRB antibody

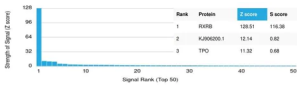
Formalin-fixed, paraffin-embedded human lymph node tissue stained for Retinoid X Receptor beta/RXRB using ab277104 at 2 µg/ml in immunohistochemical analysis.



Immunocytochemistry - Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6] (ab277104)

Retinoid X Receptor beta/RXRB Immunocytochemistry staining using mouse Anti-Retinoid X Receptor beta/RXRB antibody

Immunofluorescence analysis of PFA-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells labeling Retinoid X Receptor beta/RXRB with ab277104 at 2 µg/ml, followed by goat anti-mouse IgG-CF488 (green); phalloidin counterstain (red).



Protein Array - Anti-Retinoid X Receptor beta/RXRB antibody [PCRP-RXRB-2B6] (ab277104)

Analysis of Protein Array containing more than 19,000 full-length human proteins using ab277104.

Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

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