abcam

ab190824

Anti-Phosphotyrosine antibody [RM111]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Chemical / Small Molecule corresponding to Phosphotyrosine.
Clone number	RM111
Purification technique	Affinity purification Protein A
Specificity	This antibody reacts to tyrosine-phosphorylated proteins. No cross reactivity with non phosphorylated tyrosine, phospho-serine, and phospho-threonine
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from an animal origin–free culture supernatant.

Reactivity data

IP

Tested

Species	Modified Amino Acid

Dilution info	1/200 - 1/1000
Notes	-

ChIP

Expected

Species	Modified Amino Acid
Dilution info	1/200 - 1/1000
Notes	-

Flow Cyt

Expected

Species	Modified Amino Acid
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

ELISA

Tested

Species	Modified Amino Acid
Dilution info	-
Notes	-

WB

Tested

Species	Modified Amino Acid
Dilution info	1/1000 - 1/5000
Notes	-

IHC-P

Expected

Species	Modified Amino Acid
Dilution info	1/200 - 1/500
Notes	-

ICC/IF

Tested

Species	Modified Amino Acid
Dilution info	1/200 - 1/500
Notes	-

Target data

See full target information Phosphotyrosine

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	Phosphotyrosine also known simply as pY is a post-translational modification where a phosphate group binds to the hydroxyl group of a tyrosine amino acid in

	proteins. This small modification can have a huge impact on proteins' function and interaction. Phosphotyrosine has a molecular weight of approximately 216 Da when it stands on its own. This modification can occur in various proteins expressed widely across tissues playing a role in signaling cell division and morphological changes.
Biological function summary	Phosphorylated tyrosine residues modify the function and activity of proteins within cells. It is a critical component of signal transduction pathways and can alter protein functions when becoming part of large protein complexes. It often regulates receptor proteins and intracellular kinases modifying their ability to interact with other proteins like SH2 and PTB domain-containing proteins. Phosphotyrosine antibodies like anti-phosphotyrosine Ig2 are helpful research tools for detecting these modifications.
Pathways	The modification of tyrosine to phosphotyrosine participates significantly in pathways such as the MAPK/ERK pathway and the PI3K/AKT pathway. These pathways are important for various cellular processes including growth and survival. Proteins like EGFR and PDGFR regulate signaling cascades by phosphorylation of tyrosine residues and often interact with phosphotyrosine and phosphotyrosine antibodies importantly.
Associated diseases and disorders	The dysregulation of phosphotyrosine levels contributes to conditions like cancer and diabetes. Aberrant activation or overexpression of phosphotyrosine residues on receptors like HER2 and insulin receptors can promote uncontrolled cell proliferation often seen in tumors and contribute to insulin resistance respectively. As such phosphotyrosine serves not only as a biological target but also as a potential therapeutic target in the treatment of these 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

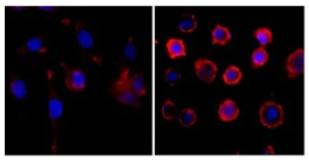
We do not recommend this combination. It is not covered by our product promise.

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.

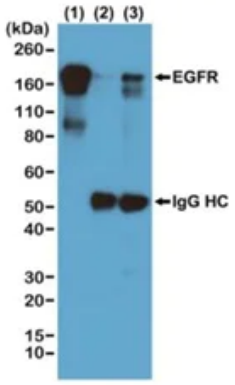
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Phosphotyrosine antibody [RM111] (ab190824)

Phosphotyrosine Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Phosphotyrosine antibody

Immunocytochemistry of serum-starved A431 cells nontreated (Left) or treated with EGF (Right) labeling Phosphotyrosine-EGFR using ab190824 at 1/500 dilution (followed by a PE conjugated secondary antibody, red) and DAPI (blue).

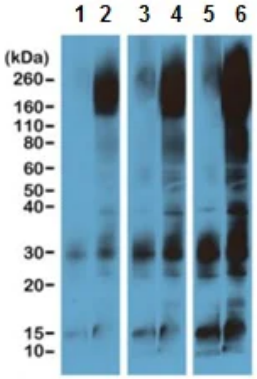


Immunoprecipitation - Anti-Phosphotyrosine antibody [RM111] (ab190824)

Immunoprecipitation of EGF-treated A431 cells pulling down Phosphotyrosine-EGFR by ab190824 at 1/1000 dilution; this was followed by western blot with an anti-EGFR rabbit monoclonal antibody.
(1) Whole lysate control;
(2) IP by rabbit IgG control;

(3) IP by ab190824

All lanes:
Immunoprecipitation - Anti-Phosphotyrosine antibody [RM111] (ab190824)

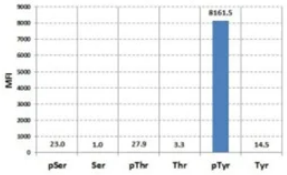


Western blot - Anti-Phosphotyrosine antibody [RM111] (ab190824)

The blot was was subjected twice to increasing exposure time in Lanes 3 and 4, and Lanes 5 and 6.
All lanes:
Western blot - Anti-Phosphotyrosine antibody [RM111] (ab190824) at 1/5000 dilution

Lanes 1, 3 and 5:
Non treated serum-starved A431 cell lysate

Lanes 2, 4 and 6:
EGF treated serum-starved A431 cell lysate



ELISA - Anti-Phosphotyrosine antibody [RM111] (ab190824)

Analysis of ab190824 reaction to phosphorylated or nonphosphorylated Serine, Threonine, and Tyrosine. ab190824 only reacted to phosphorylated Tyrosine.

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