abcam

ab278746

PE Anti-Rel B (phospho S552) antibody [RelBS552-A7]

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 0.2% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human RELB pS552. The exact immunogen used to generate this antibody is proprietary information. Database link Q01201
Clone number	RelBS552-A7
Purification technique	Affinity purification Protein A/G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Mouse

Dilution info	5 µL for 10^6 Cells
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Target data

See full target information RELB pS552

Function

NF-kappa-B is a pleiotropic transcription factor which is present in almost all cell types and is involved in many biological processed such as inflammation, immunity, differentiation, cell growth, tumorigenesis and apoptosis. NF-kappa-B is a homo- or heterodimeric complex formed by the Rel-like domain-containing proteins RELA/p65, RELB, NFKB1/p105, NFKB1/p50, REL and NFKB2/p52. The dimers bind at kappa-B sites in the DNA of their target genes and the individual dimers have distinct preferences for different kappa-B sites that they can bind with distinguishable affinity and specificity. Different dimer combinations act as transcriptional activators or repressors, respectively. NF-kappa-B is controlled by various mechanisms of post-translational modification and subcellular compartmentalization as well as by interactions with other cofactors or corepressors. NF-kappa-B complexes are held in the cytoplasm in an inactive state complexed with members of the NF-kappa-B inhibitor (I-kappa-B) family. In a conventional activation pathway, I-kappa-B is phosphorylated by I-kappa-B kinases (IKKs) in response to different activators, subsequently degraded thus liberating the active NF-kappa-B complex which translocates to the nucleus. NF-kappa-B heterodimeric RelB-p50 and RelB-p52 complexes are transcriptional activators. RELB neither associates with DNA nor with RELA/p65 or REL. Stimulates promoter activity in the presence of NFKB2/p49. As a member of the NUPR1/RELB/IER3 survival pathway, may provide pancreatic ductal adenocarcinoma with remarkable resistance to cell stress, such as starvation or gemcitabine treatment. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-BMAL1 heterodimer in a CRY1/CRY2 independent manner. Increased repression of the heterodimer is seen in the presence of NFKB2/p52. Is required for both T and B lymphocyte maturation and function (PubMed:26385063).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

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	Rel B also known as RELB proto-oncogene is a member of the NF-κB family of transcription factors. This protein plays a significant role in regulating gene expression. Rel B has a molecular mass of approximately 68 kDa. It expresses in diverse tissues including lymphoid organs and epithelial cells. It generally resides in the cytoplasm and translocates to the nucleus upon activation.
Biological function summary	Rel B serves as a critical component of the alternative NF-κB signaling pathway. It often forms a complex with another NF-κB family member called p52. This complex controls the transcription of genes involved in the immune response cell survival and differentiation. Additionally Rel B contributes to the development of secondary lymphoid organs and modulation of immune responses.
Pathways	Rel B integrates into the non-canonical NF-κB signaling pathway also influencing the canonical pathway to a lesser extent. In the non-canonical pathway Rel B interacts with NIK and p100 to influence immune cell function. This involvement makes Rel B essential in processes like adaptive immunity and inflammatory responses. The protein p52 closely associates with Rel B aiding its activity in these pathways.
Associated diseases and disorders	Rel B has connections to autoimmune diseases and certain cancers. Abnormal Rel B activity can lead to chronic inflammation and contribute to conditions like rheumatoid arthritis. In cancer its deregulation associates with lymphomas where it may interact with other NF-κB proteins like p50 and RelA affecting cell proliferation and survival. Understanding Rel B in these contexts could provide insights into therapeutic targets.

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

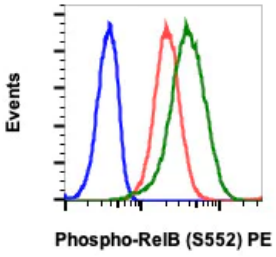
We do not recommend this combination. It is not covered by our product promise.

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



Flow Cytometry - PE Anti-Rel B (phospho S552) antibody [RelBS552-A7] (ab278746)

Rel B (phospho S552) Flow Cytometry staining using rabbit Anti-Rel B (phospho S552) antibody

Flow cytometric analysis of NIH3T3 cells untreated and unstained as negative control (blue) or untreated (red) or treated with UV plus TPA (green) and stained using ab278746.

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