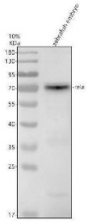
Zebrafish NF-kB p65 Antibody / RELA Antibody (RZ1333)

Catalog No.	Formulation	Size
RZ1333	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Zebrafish
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Lyophilized from a buffered saline solution containing 2% trehalose. Reconstitute with 0.2 mL distilled water to yield a final antibody concentration of 500 ug/ml.
UniProt	A0A8M2BI19
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish NF-kB p65 Antibody / RELA Antibody is available for research use only.



Zebrafish NF-kB p65 / RELA Antibody Embryo WB. Western blot analysis of zebrafish embryo tissue lysate using Zebrafish NF-kB p65 Antibody demonstrates a distinct immunoreactive band at approximately 65-70 kDa, consistent with the predicted molecular weight of RELA (NF-kB p65). RELA is a major transcriptionally active subunit of the canonical NF-kB signaling complex and functions as a key regulator of inflammation, innate immunity, cellular stress responses, and cell survival pathways. The observed band is consistent with expression of NF-kB p65 during embryonic development, where NF-kB signaling contributes to developmental patterning, immune system maturation, and regulation of gene expression. Electrophoresis was performed on a 10% SDS-PAGE gel under reducing conditions followed by transfer to a nitrocellulose membrane. Signal was detected using an HRP-conjugated secondary antibody and enhanced chemiluminescent substrate. Predicted molecular weight: ~65 kDa. Observed molecular weight: ~65-70 kDa.

Description

Zebrafish NF-kB p65 Antibody / RELA Antibody recognizes RELA, also known as NF-kB p65, a transcription factor that serves as a central regulator of inflammatory signaling, innate immunity, cellular stress responses, and cell survival pathways. RELA is one of the principal subunits of the canonical NF-kB transcription factor complex and functions by regulating expression of genes involved in immune activation, cytokine production, apoptosis, proliferation, and tissue

homeostasis. Upon stimulation by inflammatory mediators, microbial products, oxidative stress, or cellular injury, RELA translocates to the nucleus where it controls transcriptional programs essential for cellular adaptation and host defense. The highly conserved nature of NF-kB signaling has made zebrafish an important vertebrate model for investigating RELA function during development and disease.

NF-kB signaling plays a critical role in coordinating immune and inflammatory responses throughout the body. In zebrafish, RELA contributes to regulation of innate immune pathways, host-pathogen interactions, stress adaptation, and tissue repair mechanisms. Activation of RELA-dependent transcription influences production of cytokines, chemokines, adhesion molecules, and numerous other mediators involved in immune communication. Consequently, RELA expression and activity are frequently examined in studies investigating inflammation, infection, environmental stress, and immune system development.

Beyond its immunological functions, RELA participates in diverse developmental and physiological processes. NF-kB signaling contributes to embryogenesis, organ development, cellular differentiation, and maintenance of tissue integrity. Dysregulation of RELA activity has been associated with chronic inflammation, abnormal cell survival signaling, tumorigenesis, and degenerative disease processes across vertebrate species. As a result, RELA remains an important target in studies focused on disease mechanisms and signaling pathway regulation.

Zebrafish provide unique advantages for examining NF-kB biology due to their optical transparency, genetic tractability, and suitability for live imaging of inflammatory responses. Researchers frequently monitor RELA expression and localization during investigations of infection, wound healing, regeneration, toxicology, and immune signaling. Because NF-kB pathways integrate signals from numerous upstream regulatory networks, RELA serves as a valuable molecular marker for evaluating cellular responses to physiological and experimental challenges.

At NSJ Bioreagents, we provide highly validated antibodies for immunology, inflammation research, developmental biology, and zebrafish studies. Zebrafish NF-kB p65 Antibody / RELA Antibody targets a key transcriptional regulator of immune activation and cellular stress responses. RELA expression is widely studied in the context of inflammation, innate immunity, host defense, tissue regeneration, and NF-kB signaling pathways. Continued investigation of this important transcription factor is expanding our understanding of the molecular mechanisms that govern immune regulation, cellular adaptation, and vertebrate physiology.

This Zebrafish antibody is part of a broader Zebrafish / Danio rerio antibody panel offered by NSJ Bioreagents.

Application Notes

The optimal working dilution of the Zebrafish NF-kB p65 Antibody / RELA Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish NF-kB p65/RELA recombinant protein (amino acids M1-F588) was used as the immunogen for the Zebrafish NF-kB p65 Antibody.

Storage

After reconstitution, the Zebrafish NF-kB p65 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Zebrafish RELA Antibody, Zebrafish NF-kappaB p65 Antibody, Zebrafish Nuclear Factor Kappa B p65 Antibody, Zebrafish p65 NF-kB Antibody, Zebrafish Canonical NF-kB Antibody, Zebrafish Transcription Factor RELA Antibody

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