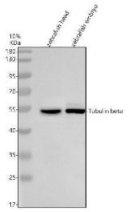
Zebrafish Beta Tubulin 1 Antibody / TUBB1 Antibody (RZ1350)

Catalog No.	Formulation	Size
RZ1350	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	E7FC32
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish Beta Tubulin 1 Antibody / TUBB1 Antibody is available for research use only.



Zebrafish Beta Tubulin 1 / TUBB1 Antibody Cytoskeleton WB. Western blot analysis of zebrafish head tissue and zebrafish embryo lysates using Zebrafish Beta Tubulin 1 Antibody demonstrates a strong immunoreactive band at approximately 50 kDa, consistent with the predicted molecular weight of Tubulin Beta 1 (TUBB1). TUBB1 is a structural component of microtubules that contributes to cytoskeletal organization, intracellular transport, cell division, and tissue development. The observed band is detected in both adult and embryonic zebrafish samples, consistent with the fundamental role of beta-tubulin proteins in maintaining cellular architecture and supporting developmental processes. 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.

Description

Zebrafish Beta Tubulin 1 Antibody / TUBB1 Antibody recognizes Tubulin Beta 1 (TUBB1), a member of the beta-tubulin protein family that serves as a structural component of microtubules. Microtubules are dynamic cytoskeletal polymers that contribute to cell shape, intracellular transport, chromosome segregation, motility, and tissue organization. Through assembly with alpha-tubulin subunits, TUBB1 participates in formation of the microtubule network that supports essential cellular processes throughout development and adult physiology. The highly conserved nature of tubulin proteins has

established zebrafish as an important vertebrate model for investigating cytoskeletal organization and microtubule-dependent biological functions.

Microtubules play critical roles during embryonic development by regulating cell division, migration, differentiation, and morphogenesis. In zebrafish, TUBB1 expression contributes to the cytoskeletal framework required for tissue organization and cellular architecture. Proper microtubule assembly is essential for nervous system development, organ formation, intracellular trafficking, and maintenance of cellular polarity. Consequently, TUBB1 and related tubulin family members are frequently examined in studies investigating developmental biology, cell structure, and cytoskeletal dynamics.

The tubulin cytoskeleton also participates in intracellular transport processes through interactions with molecular motor proteins including kinesins and dyneins. These transport systems facilitate movement of vesicles, organelles, signaling molecules, and protein complexes throughout the cell. Because microtubule organization influences numerous aspects of cellular function, alterations in tubulin expression or microtubule dynamics can affect development, tissue homeostasis, and physiological regulation. Researchers commonly evaluate tubulin proteins as markers of cytoskeletal integrity and cellular organization.

Zebrafish provide unique advantages for examining cytoskeletal biology because developmental processes can be directly visualized in living embryos and larvae. Expression studies involving TUBB1 may provide insight into tissue-specific microtubule organization, cellular differentiation, and developmental regulation. Because microtubule networks are fundamental to nearly every aspect of vertebrate cell biology, TUBB1 remains a valuable target for studies focused on cytoskeletal structure and function.

At NSJ Bioreagents, we provide highly validated antibodies for cell biology, developmental biology, and zebrafish research. Zebrafish Beta Tubulin 1 Antibody / TUBB1 Antibody targets a key component of the microtubule cytoskeleton. TUBB1 expression is studied in the context of cellular architecture, microtubule organization, intracellular transport, tissue development, and cytoskeletal regulation. Continued investigation of TUBB1 is expanding our understanding of the molecular mechanisms that govern cell structure, developmental processes, 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 Beta Tubulin 1 Antibody / TUBB1 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish beta I Tubulin/TUBB1 recombinant protein (amino acids M1-D427) was used as the immunogen for the Zebrafish Beta Tubulin 1 / TUBB1 Antibody.

Storage

After reconstitution, the Zebrafish Beta Tubulin 1 / TUBB1 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 TUBB1 Antibody, Zebrafish Tubulin Beta 1 Antibody, Zebrafish Beta-Tubulin 1 Antibody, Zebrafish Microtubule Protein Antibody, Zebrafish Cytoskeletal Tubulin Antibody, Zebrafish Platelet Tubulin Antibody

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