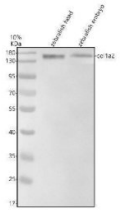
Zebrafish Collagen I Antibody / COL1A2 Antibody (RZ1373)

Catalog No.	Formulation	Size
RZ1373	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	Q6IQX2
Applications	Western blot: 0.5-1ug/ml
Limitations	This Zebrafish Collagen I Antibody / COL1A2 Antibody is available for research use only.



Zebrafish Collagen I Antibody WB. Western blot analysis of Collagen Type I Alpha 2 Chain (COL1A2) using Zebrafish Collagen I Antibody / COL1A2 Antibody demonstrates a prominent immunoreactive band at approximately 150 kDa in zebrafish head and embryo tissue lysates. The detected protein migrates above the predicted molecular weight of approximately 127 kDa, a finding that is consistent with the large size, extensive post-translational modification, and extracellular matrix-associated nature of type I collagen proteins. Strong detection in both developmental and adult-associated tissue samples supports expression of COL1A2 during connective tissue formation and extracellular matrix maintenance. The observed immunoreactivity demonstrates the utility of this antibody for studies of collagen biology, connective tissue development, extracellular matrix organization, skeletal formation, tissue remodeling, and regenerative processes in zebrafish models.

Description

Zebrafish Collagen I Antibody / COL1A2 Antibody recognizes Collagen Type I Alpha 2 Chain (COL1A2), a major structural component of type I collagen fibers and one of the most abundant extracellular matrix proteins in vertebrates. Type I collagen provides tensile strength and structural support to connective tissues throughout the body and plays essential roles in tissue architecture, skeletal development, wound healing, and extracellular matrix organization. In zebrafish, COL1A2 contributes to the formation and maintenance of connective tissues during development and remains

an important component of tissue remodeling and regenerative processes throughout life.

Type I collagen is a fibrillar collagen composed of alpha chain subunits that assemble into highly organized extracellular fibers. These fibers provide mechanical stability to tissues while also serving as a scaffold that influences cellular adhesion, migration, proliferation, and differentiation. Proper synthesis, secretion, and assembly of COL1A2-containing collagen fibers are required for normal connective tissue integrity and extracellular matrix homeostasis. Because collagen fibers form the structural framework of many tissues, COL1A2 is a key determinant of tissue strength and organization.

Zebrafish have become a valuable model for studying extracellular matrix biology, connective tissue development, skeletal formation, and regenerative medicine. Expression of COL1A2 is associated with developing connective tissues, sites of active matrix deposition, and tissues undergoing remodeling or repair. As a result, COL1A2 serves as a useful marker for investigations of bone development, cartilage formation, tissue morphogenesis, and extracellular matrix regulation. The optical accessibility and regenerative capacity of zebrafish further enhance their value for studying collagen biology in vivo.

Collagen I is also widely studied in the context of wound healing, fibrosis, and tissue regeneration. During tissue repair, coordinated regulation of collagen synthesis and extracellular matrix remodeling is necessary to restore tissue structure and function. Alterations in COL1A2 expression can influence connective tissue organization, matrix deposition, and regenerative outcomes. Consequently, COL1A2 is frequently examined in studies of developmental biology, skeletal disorders, fibrotic processes, and regenerative mechanisms that depend on extracellular matrix remodeling.

At NSJ Bioreagents, we provide highly validated antibodies for developmental biology, extracellular matrix research, connective tissue biology, and zebrafish model systems. Zebrafish Collagen I Antibody / COL1A2 Antibody is useful for investigations of connective tissue development, skeletal biology, extracellular matrix regulation, tissue remodeling, wound healing, and regenerative processes. Continued study of COL1A2 is improving our understanding of how extracellular matrix networks support vertebrate development, tissue integrity, and tissue repair.

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 Collagen I Antibody / COL1A2 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish Collagen Type I/COL1A2 recombinant protein (amino acids G1096-Q1252) was used as the immunogen for the Zebrafish Collagen I / COL1A2 Antibody.

Storage

After reconstitution, the Zebrafish Collagen I / COL1A2 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 Collagen I Antibody, Zebrafish Type I Collagen Antibody, Zebrafish COL1A2 Antibody, Zebrafish Collagen Alpha-2(I) Chain Antibody, Zebrafish Collagen Type I Alpha 2 Antibody, Zebrafish Fibrillar Collagen Antibody

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