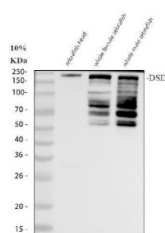


Zebrafish DSE Antibody / Dermatan Sulfate Epimerase Antibody (RZ1449)

Catalog No.	Formulation	Size
RZ1449	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	Q5RGL8
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish DSE Antibody / Dermatan Sulfate Epimerase Antibody is available for research use only.



Zebrafish DSE Antibody WB. Western blot analysis of DSE expression using anti-DSE antibody. DSE, also known as Dermatan Sulfate Epimerase, is an extracellular matrix biosynthetic enzyme that catalyzes the conversion of glucuronic acid to iduronic acid during dermatan sulfate synthesis. Lane 1: whole female zebrafish tissue lysate. Lane 2: whole male zebrafish tissue lysate. A major band was detected at approximately 180 kDa, above the predicted molecular weight of 110 kDa. Additional bands between approximately 55 and 90 kDa were also observed and may represent proteolytic fragments, alternatively processed forms, or post translationally modified species of Dermatan Sulfate Epimerase. The slower migration of the major band may reflect extensive glycosylation or other post translational modifications. These results demonstrate expression of DSE in adult zebrafish tissues and support the utility of this antibody for studies of extracellular matrix biology, glycosaminoglycan metabolism, and connective tissue development.

Description

Zebrafish DSE Antibody / Dermatan Sulfate Epimerase Antibody recognizes DSE, an enzyme responsible for converting glucuronic acid residues to iduronic acid during dermatan sulfate biosynthesis. This epimerization step is essential for generating dermatan sulfate chains with the structural flexibility required for interactions with collagen, growth factors, and

extracellular matrix proteins. DSE therefore plays a critical role in the assembly and function of connective tissues and contributes to cellular signaling pathways involved in development and tissue maintenance.

In zebrafish, DSE is expressed during embryogenesis and participates in the formation of the extracellular matrix and proper morphogenesis of connective tissues. Dermatan sulfate proteoglycans generated through DSE activity influence cell adhesion, migration, and growth factor signaling. Because glycosaminoglycans are highly conserved among vertebrates, zebrafish provide an effective model for investigating extracellular matrix biology and developmental processes. Altered DSE activity can disrupt tissue organization and affect skeletal and cardiovascular development.

Mutations affecting DSE have been associated with connective tissue abnormalities and forms of Ehlers Danlos syndrome in humans, highlighting the importance of dermatan sulfate biosynthesis in maintaining tissue integrity. Studies in vertebrate models have demonstrated that DSE contributes to collagen fibrillogenesis, wound healing, and cellular interactions within the extracellular matrix. Consequently, Zebrafish DSE Antibody / Dermatan Sulfate Epimerase Antibody is useful for studies of embryonic development, extracellular matrix remodeling, connective tissue biology, and glycosaminoglycan metabolism.

Zebrafish DSE Antibody / Dermatan Sulfate Epimerase Antibody provides a valuable tool for investigating conserved mechanisms that regulate tissue architecture and extracellular matrix composition. Because dermatan sulfate influences numerous signaling pathways involved in morphogenesis and repair, DSE has emerged as an important target for studies of developmental disorders and connective tissue disease.

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 DSE Antibody / Dermatan Sulfate Epimerase Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish DSE recombinant protein (amino acids D572-K793) was used as the immunogen for the Zebrafish DSE Antibody.

Storage

After reconstitution, the Zebrafish DSE 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 Dermatan Sulfate Epimerase Antibody, Zebrafish DS Epimerase Antibody, Zebrafish DSE1 Antibody, Zebrafish Chondroitin Dermatan Sulfate Epimerase Antibody, Zebrafish Glycosaminoglycan Biosynthesis Enzyme Antibody, Zebrafish Extracellular Matrix Enzyme Antibody