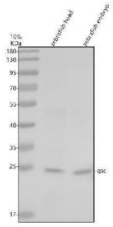
Zebrafish Goosecoid Antibody / GSC Antibody (RZ1363)

Catalog No.	Formulation	Size
RZ1363	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	P53544
Applications	Western Blot : 0.5-1ug/ml
Limitations	This Zebrafish Goosecoid Antibody / GSC Antibody is available for research use only.



Zebrafish Goosecoid / GSC Antibody Developmental Transcription Factor WB. Western blot analysis of zebrafish head tissue and zebrafish embryo lysates using Zebrafish Goosecoid Antibody demonstrates a distinct immunoreactive band at approximately 25 kDa, consistent with the predicted molecular weight of Homeobox Protein Goosecoid (GSC). Goosecoid is a homeobox transcription factor that functions as a key regulator of embryonic patterning, gastrulation, mesoderm specification, and organizer activity during early vertebrate development. Detection of GSC in zebrafish embryo lysate is consistent with its established role in developmental signaling pathways that govern body axis formation and tissue specification. The observed band closely matches the expected molecular weight and supports specific recognition of Goosecoid in zebrafish tissues. 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 Goosecoid Antibody / GSC Antibody recognizes Homeobox Protein Goosecoid (GSC), a transcription factor that plays a fundamental role in embryonic development, body axis formation, and tissue patterning. Goosecoid belongs to the homeobox family of developmental regulators and functions by controlling gene expression programs required for establishment of embryonic organization during early vertebrate development. Through its activity as a DNA-binding

transcription factor, GSC contributes to formation of the embryonic organizer, mesoderm specification, and regulation of morphogenetic processes that guide normal tissue development. The highly conserved nature of Goosecoid function has established zebrafish as an important model for investigating embryonic patterning and developmental regulation.

Goosecoid is best known for its role in the organizer region of the developing embryo, where it helps coordinate signaling events that establish body axes and direct cell fate decisions. Expression of GSC is frequently examined in studies investigating gastrulation, mesoderm formation, neural induction, and embryonic morphogenesis. Because Goosecoid functions near the top of developmental regulatory hierarchies, it serves as an important marker of early embryonic patterning and developmental signaling activity.

As a transcriptional regulator, GSC controls expression of downstream genes involved in tissue specification, cellular migration, and embryonic organization. Proper regulation of Goosecoid activity is essential for normal vertebrate development, while alterations in developmental signaling pathways can affect body plan formation and tissue differentiation. Researchers commonly evaluate GSC expression during studies of developmental genetics, stem cell biology, embryology, and regenerative biology. Consequently, Goosecoid remains an important target for understanding the molecular mechanisms that govern early development.

Zebrafish provide unique advantages for studying developmental transcription factors because embryonic development occurs externally and can be directly visualized throughout early life stages. Investigators frequently monitor GSC expression during studies of gastrulation, embryonic patterning, developmental signaling, and tissue specification. Because many developmental pathways are highly conserved between zebrafish and mammals, findings generated using zebrafish models often provide valuable insight into vertebrate embryogenesis and developmental regulation.

At NSJ Bioreagents, we provide highly validated antibodies for developmental biology, embryology, stem cell research, and zebrafish research. Zebrafish Goosecoid Antibody / GSC Antibody targets a key homeobox transcription factor involved in embryonic patterning and mesoderm development. GSC expression is widely studied in the context of gastrulation, organizer function, body axis formation, developmental signaling, and vertebrate embryogenesis. Continued investigation of this important developmental regulator is expanding our understanding of the molecular mechanisms that control tissue specification and embryonic organization.

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 Goosecoid Antibody / GSC Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish GSC recombinant protein (amino acids D45-S240) was used as the immunogen for the Zebrafish Goosecoid / GSC Antibody.

Storage

After reconstitution, the Zebrafish Goosecoid / GSC 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 GSC Antibody, Zebrafish Homeobox Protein Goosecoid Antibody, Zebrafish Developmental Homeobox Protein Antibody, Zebrafish Embryonic Patterning Transcription Factor Antibody, Zebrafish Organizer Region Marker Antibody, Zebrafish Mesoderm Development Protein Antibody

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