# Zebrafish Rbm22 Antibody / RNA-binding protein 22 (RZ1302)

| Catalog No. | Formulation | Size |
|---|---|---|
| RZ1302 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

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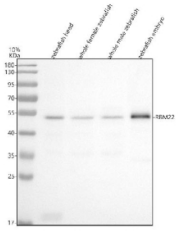
|---|---|
| **Availability** | 2-3 weeks |
| **Species Reactivity** | Zebrafish |
| **Format** | Antigen affinity purified |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit Ig |
| **Purity** | Antigen affinity chromatography |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | Q6NZZ9 |
| **Applications** | Western Blot : 0.5-1ug/ml |
| **Limitations** | This Zebrafish Rbm22 antibody is available for research use only. |



Western blot analysis of Rbm22 protein using Zebrafish Rbm22 antibody and 1) zebrafish head, 2) whole female zebrafish, 3) whole male zebrafish and 4) zebrafish embryo tissue lysate. Predicted molecular weight ~47 kDa.

## Description

The Zebrafish Rbm22 antibody targets Rbm22, also known as RNA-binding protein 22, a conserved nuclear factor required for spliceosome assembly, pre-mRNA splicing, and accurate gene expression during embryonic development in Danio rerio. Zebrafish, also known as Danio rerio, express rbm22 broadly from early developmental stages, with enriched expression in transcriptionally active and proliferative tissues such as the developing brain, retina, somites, and endodermal organs. Rbm22 localizes primarily to the nucleus, where it associates with spliceosomal complexes and contributes to the catalytic activation of pre-mRNA splicing events essential for developmental progression.

Rbm22 is a core component of the spliceosome and participates in stabilizing the active spliceosomal conformation

required for intron excision. It contains conserved RNA-binding and protein-interaction domains that allow it to associate with pre-mRNA substrates and other splicing regulators. In zebrafish embryos, rbm22 expression is prominent in tissues undergoing rapid differentiation and cell-cycle progression, reflecting the high demand for efficient and accurate RNA processing. A Zebrafish Rbm22 antibody is suitable for detecting nuclear localization in these regions, providing a marker for active spliceosome function and transcript maturation during development.

Functionally, Rbm22 plays a critical role in the catalytic steps of splicing, helping coordinate structural rearrangements within the spliceosome that enable exon ligation. Disruption of rbm22 expression interferes with global splicing efficiency, leading to widespread transcript defects and impaired protein synthesis. In zebrafish, proper Rbm22 activity supports neural development, somitogenesis, and organogenesis by ensuring accurate processing of transcripts involved in major developmental signaling pathways such as Wnt, Notch, Fgf, and Hedgehog. Because splicing fidelity underpins nearly all gene-regulatory networks, Rbm22 is essential for maintaining developmental timing and tissue-specific gene expression programs.

Structurally, zebrafish Rbm22 contains conserved domains that mediate interactions with U2 and U5 snRNP-associated factors, supporting formation of the catalytically competent spliceosome. The zebrafish rbm22 gene maps to chromosome 7 and is regulated by transcriptional programs linked to cell proliferation and differentiation. Co-localization studies identify Rbm22 in nuclear speckles and spliceosome-rich domains, frequently overlapping with other splicing regulators and components of the transcriptional machinery, consistent with its role in co-transcriptional RNA processing.

A Zebrafish Rbm22 antibody is suitable for detecting Rbm22 in studies focused on RNA splicing, spliceosome activation, transcriptome regulation, neural and mesodermal development, and gene-expression control in Danio rerio. Its nuclear distribution provides a clear readout of tissues with high RNA-processing demand, enabling researchers to analyze splicing defects in genetic models, investigate developmental disorders linked to RNA metabolism, and study how perturbations in spliceosome components influence embryogenesis. This antibody is supplied for research use by NSJ Bioreagents.

## Application Notes

Optimal dilution of the Zebrafish Rbm22 antibody should be determined by the researcher.

## Immunogen

E. coli-derived zebrafish Rbm22 recombinant protein (amino acids D17-R296) was used as the immunogen for the Zebrafish Rbm22 antibody.

## Storage

After reconstitution, the Zebrafish Rbm22 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.