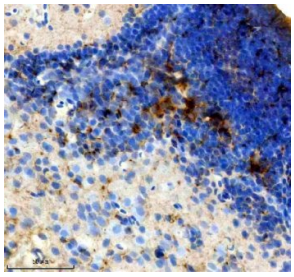
Zebrafish SSTR2 Antibody / Somatostatin Receptor 2 Antibody (RZ1402)

Catalog No.	Formulation	Size
RZ1402	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	Q9DDE4
Applications	Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Zebrafish SSTR2 Antibody / Somatostatin Receptor 2 Antibody is available for research use only.



Zebrafish SSTR2 Antibody Brain IHC. Immunohistochemistry staining of paraffin-embedded zebrafish brain tissue using Zebrafish SSTR2 Antibody / Somatostatin Receptor 2 Antibody demonstrates localized HRP-DAB brown staining within discrete neural cell populations. The staining pattern is consistent with expression of SSTR2, a G protein-coupled receptor that mediates the biological effects of somatostatin and regulates neuroendocrine signaling, neurotransmission, and neuronal activity. SSTR2 plays important roles in nervous system development, cellular communication, and modulation of signaling pathways that influence neuronal function and tissue homeostasis. HIER was performed using EDTA buffer prior to staining. Tissue sections were blocked with 10% goat serum and incubated with primary antibody at 2 ug/ml overnight at 4C before detection with peroxidase-conjugated goat anti-rabbit IgG and DAB chromogen.

Description

Zebrafish SSTR2 Antibody / Somatostatin Receptor 2 Antibody detects SSTR2, a G protein-coupled receptor that mediates the biological effects of somatostatin and related neuropeptides. SSTR2 is one of the principal somatostatin receptor subtypes and functions as an important regulator of neurotransmission, hormone secretion, cellular proliferation, and neuroendocrine signaling. Because somatostatin signaling influences numerous physiological processes throughout

vertebrate development and adult tissue function, SSTR2 is widely studied in zebrafish models of nervous system development, endocrine regulation, and cell signaling. Zebrafish SSTR2 Antibody is valuable for investigations of neuroendocrine communication and GPCR biology.

SSTR2 is activated by somatostatin peptides and transduces extracellular signals through inhibitory G proteins, leading to modulation of intracellular signaling pathways that regulate hormone release, neuronal activity, and cellular growth. Through these mechanisms, SSTR2 contributes to maintenance of physiological homeostasis and coordination of communication between neural, endocrine, and peripheral tissues. The receptor plays a central role in balancing stimulatory and inhibitory signaling pathways within diverse organ systems.

In zebrafish, SSTR2 is expressed in tissues associated with nervous system function, neuroendocrine regulation, and developmental signaling. The receptor has been investigated in studies of neuronal differentiation, sensory system development, hormone-mediated signaling, and regulation of cellular activity during embryogenesis. Because zebrafish provide a powerful vertebrate model for visualizing developmental processes in vivo, SSTR2 serves as a useful marker for examining conserved neuroendocrine pathways.

Somatostatin signaling regulates numerous biological processes including neurotransmitter release, endocrine function, cellular proliferation, and tissue homeostasis. SSTR2-mediated signaling contributes to these effects by modulating intracellular cyclic AMP pathways and downstream signaling networks. Researchers frequently utilize Zebrafish SSTR2 Antibody to examine receptor expression patterns and investigate mechanisms that govern neuroendocrine communication and developmental regulation.

Beyond developmental biology, SSTR2 is studied in models of neuronal function, endocrine physiology, regenerative biology, and receptor-mediated signaling. The evolutionary conservation of somatostatin pathways across vertebrates makes zebrafish a valuable system for understanding the molecular mechanisms that regulate neuroendocrine signaling and tissue homeostasis. Studies of SSTR2 expression provide insight into how cells integrate extracellular signals to coordinate physiological responses.

Zebrafish SSTR2 Antibody / Somatostatin Receptor 2 Antibody is useful for researchers studying neuroendocrine signaling, GPCR biology, nervous system development, endocrine regulation, hormone signaling, neuronal differentiation, and vertebrate developmental biology. Applications may include immunohistochemistry, immunofluorescence, western blotting, and other protein expression analyses when supported by validation data.

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 SSTR2 Antibody / Somatostatin Receptor 2 Antibody should be determined empirically by the investigator.

Immunogen

An E.coli-derived Zebrafish SST2 recombinant protein (amino acids R25-C107) was used as the immunogen for the Zebrafish SST2 Antibody.

Storage

After reconstitution, the Zebrafish SST2 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 SSTR2 Antibody, Zebrafish SST2 Antibody, Zebrafish Somatostatin Receptor 2 Antibody, Zebrafish Somatostatin Receptor Type 2 Antibody, Zebrafish GPCR Antibody, Zebrafish Neuroendocrine Receptor Antibody

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