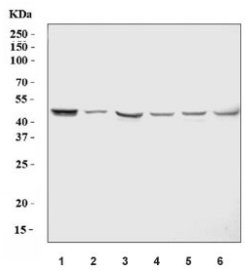
ZIC1 Antibody / Neural Development Transcription Factor Antibody (RQ7020)

Catalog No.	Formulation	Size
RQ7020	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q15915
Applications	Western Blot : 0.5-1 ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This ZIC1 Antibody / Neural Development Transcription Factor Antibody is available for research use only.



ZIC1 Antibody Multi-Species WB. Western blot analysis of human U-251, human SH-SY5Y, rat brain, rat C6, mouse brain, and mouse NIH 3T3 lysates using ZIC1 Antibody / Neural Development Transcription Factor Antibody demonstrates a consistent immunoreactive band at approximately 45-48 kDa across all samples tested. The observed molecular weight is consistent with the predicted size of Zinc Finger Protein of the Cerebellum 1 (ZIC1), a developmental transcription factor that regulates neurogenesis, neural patterning, cerebellar development, and cellular differentiation. Detection of a similarly sized band in human, rat, and mouse samples supports recognition of ZIC1 across multiple species and is consistent with the highly conserved nature of ZIC family transcription factors. The widespread expression observed in neural-derived tissues and cell lines aligns with the established role of ZIC1 in nervous system development and maintenance of developmental gene expression programs.

Description

ZIC1 Antibody / Neural Development Transcription Factor Antibody recognizes Zinc Finger Protein of the Cerebellum 1 (ZIC1), a DNA-binding transcription factor that plays a central role in neural development, embryonic patterning, and regulation of cellular differentiation. ZIC1 belongs to the ZIC family of zinc finger transcription factors, a highly conserved group of developmental regulators that control gene expression programs required for formation of the central nervous system and other embryonic structures. Through its ability to regulate transcriptional networks, ZIC1 contributes to neurogenesis, neural crest specification, cerebellar development, and tissue morphogenesis. ZIC1 expression is therefore widely studied as a marker of developmental signaling and neural lineage specification.

ZIC1 is particularly important during embryogenesis where it participates in patterning of the neural tube and establishment of regional identity within the developing nervous system. Precise regulation of ZIC1 activity is required for normal brain formation and differentiation of specialized neuronal populations. Altered expression of ZIC1 has been associated with developmental abnormalities and disrupted tissue patterning, highlighting its importance as a master regulator of developmental gene expression. Researchers frequently examine ZIC1 expression when investigating neurodevelopmental pathways and mechanisms governing cellular differentiation.

Beyond embryonic development, ZIC1 contributes to maintenance of transcriptional programs that influence cellular identity and tissue organization. Members of the ZIC family interact with multiple developmental signaling pathways, including those involved in neural patterning, stem cell regulation, and morphogenesis. Because transcription factors occupy key positions within developmental regulatory networks, ZIC1 remains an important target in studies focused on developmental biology, neuroscience, stem cell differentiation, and regenerative processes.

Expression of ZIC1 has also been investigated in cancer biology and disease-related developmental pathways. Dysregulation of developmental transcription factors can influence cellular proliferation, differentiation status, and tissue organization. Consequently, ZIC1 continues to attract interest in studies evaluating the relationship between developmental signaling mechanisms and disease progression. The ability of ZIC1 to regulate multiple downstream gene networks makes it a valuable marker for understanding complex biological processes that govern tissue development and maintenance.

At NSJ Bioreagents, we provide highly validated antibodies for neuroscience, developmental biology, stem cell research, and transcription factor studies. ZIC1 Antibody / Neural Development Transcription Factor Antibody is useful for investigating neurogenesis, neural patterning, embryonic development, developmental signaling pathways, and cellular differentiation. Ongoing research continues to reveal important functions for ZIC1 in nervous system formation, tissue specification, and vertebrate development.

ZIC1 is an important developmental transcription factor for studies of neurogenesis, neural patterning, and nervous system formation, making it a relevant target within our Neuroscience Antibodies collection.

Application Notes

Optimal dilution of the ZIC1 Antibody / Neural Development Transcription Factor Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids T16-H195) was used as the immunogen for the ZIC1 antibody.

Storage

After reconstitution, the ZIC1 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

Zinc Finger Protein of the Cerebellum 1 Antibody, Neural Development Transcription Factor Antibody, Zic Family Transcription Factor Antibody, Neurogenesis Regulatory Protein Antibody, Neural Patterning Protein Antibody,

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com