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ZBTB4 Antibody
Catalog # ASC11261

Specification

ZBTB4 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9P1Z0
Other Accession	EAW90185, 192807286
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ZBTB4 antibody can be used for detection of ZBTB4 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

ZBTB4 Antibody - Additional Information

Gene ID **57659**

Target/Specificity
ZBTB4; At least four isoforms of ZBTB4 are known to exist; this antibody will only recognize the longest isoform. This antibody is predicted to not cross-react with other ZBTB protein family members.

Reconstitution & Storage
ZBTB4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
ZBTB4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ZBTB4 Antibody - Protein Information

Name ZBTB4

Synonyms KIAA1538

Function
Transcriptional repressor with bimodal DNA-binding specificity. Represses transcription in a methyl-CpG-dependent manner. Binds with a higher affinity to methylated CpG dinucleotides in the consensus sequence 5'-CGCG-3' but can also bind to the non-methylated consensus sequence 5'-CTGCNA-3' also known as the consensus kaiso binding site (KBS). Can also bind specifically to a single methyl-CpG pair and can bind hemimethylated DNA but with a lower affinity compared to methylated DNA (PubMed:<a href="http://www.uniprot.org/citations/16354688"

target="_blank">16354688). Plays a role in postnatal myogenesis, may be involved in the regulation of satellite cells self- renewal (By similarity).

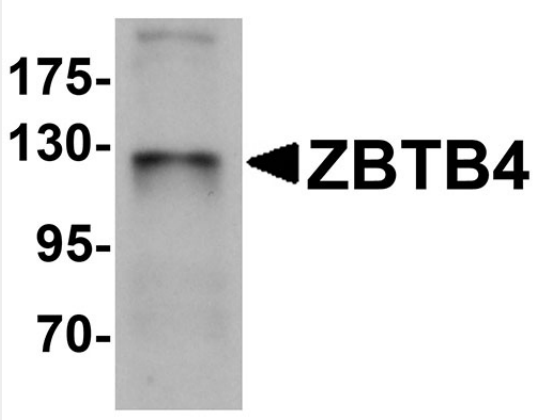
Cellular Location
Nucleus. Chromosome. Note=Localizes to chromocenters

ZBTB4 Antibody - Protocols

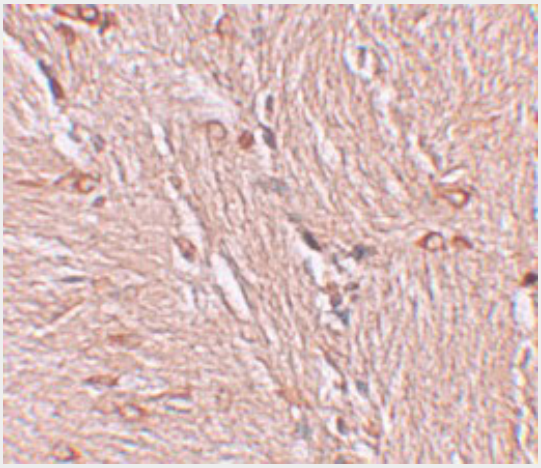
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ZBTB4 Antibody - Images



Western blot analysis of ZBTB4 in SK-N-SH cell lysate with ZBTB4 antibody at 1 µg/mL.



Immunohistochemistry of ZBTB4 in human brain tissue with ZBTB4 antibody at 2.5 µg/mL.

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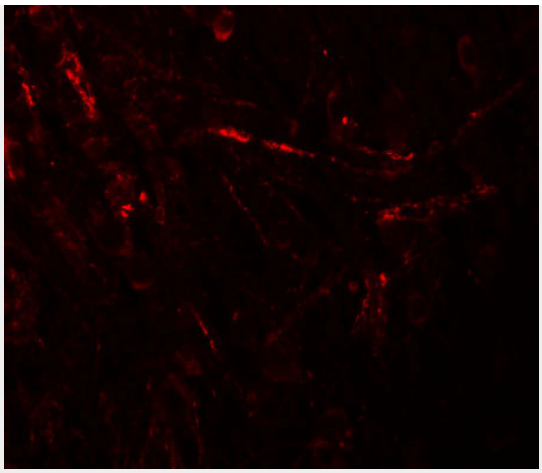

Immunofluorescence of ZBTB4 in human brain tissue with ZBTB4 antibody at 20 µg/mL.

ZBTB4 Antibody - Background

ZBTB4 Antibody: The ZBTB family of proteins is comprised of diverse zinc finger proteins that also contain a BTB (BR-C, ttk and bab) domain. Similar to Kaiso, a zinc-finger containing protein that can bind methylated CpGs, ZBTB4 can also bind methylated DNA and repress transcription. ZBTB4 has been shown to associate with the Sin3/histone deacetylase co-repressor and repress expression of P21CIP1 as part of a heterodimeric complex with Miz1. In cultured cells, depletion of ZBTB4 promotes cell cycle arrest in response to p53 activation and suppresses apoptosis through regulation of P21CIP1, suggesting that ZBTB4 is a critical determinant of the cellular response to p53 activation. HIPK2, a kinase that is involved in cellular proliferation and survival, phosphorylates and down-regulates ZBTB4 under normal cell growth conditions; this degradation increases with DNA damage.

ZBTB4 Antibody - References

Strausberg RL, Feingold EA, Grouse LH, et al. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA2002; 99:16899-903.
Filion GJP, Zhenilo S, Salozhin S, et al. A family of zinc finger proteins that bind methylated DNA and repress transcription. Mol. Cell. Biol.2006; 26:169-81.
Weber A, Marquardt J, Elzi D, et al. Zbtb4 represses transcription of P21CIP1 and controls the cellular response to p53 activation. EMBO J.2008; 27:1563-74.
Yamada D, Perez-Torrado R, Filion G, et al. The human protein kinase HIPK2 phosphorylates and downregulates the methyl-binding transcription factor ZBTB4. Oncogene2009; 28:2535-44.