

ZBTB7/Pokemon Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10609**Specification**

ZBTB7/Pokemon Antibody - Product Information

Application	WB, IP
Primary Accession	O95365
Other Accession	NP_056982.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	61439

ZBTB7/Pokemon Antibody - Additional Information**Gene ID** 51341

Application & Usage	Western blotting (1:500 - 1:2000) and Immunoprecipitation. HeLa cell lysate can be used as a positive control. However, the optimal concentrations should be determined individually. The antibody recognizes the ZBTB7 (BFI-1) of human and mouse origins. Reactivity to other species has not been tested.
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Other Names

Pokemon, FBI1, FBI-1, Factor that Binds to Inducer of Short Transcripts (IST) protein 1, LRF, Leukemia/lymphoma Related Factor, ZBTB7, ZBTB7A, Zinc Finger and BTB domain containing 7A, TIP21, TIP-21, TTF-1 interacting peptide 21, OCZF, Osteoclast Derived

Target/Specificity

ZBTB7

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl affinity purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

ZBTB7/Pokemon Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ZBTB7/Pokemon Antibody - Protein Information

Name ZBTB7A ([HGNC:18078](#))

Function

Transcription factor that represses the transcription of a wide range of genes involved in cell proliferation and differentiation (PubMed: [14701838](http://www.uniprot.org/citations/14701838), PubMed: [17595526](http://www.uniprot.org/citations/17595526), PubMed: [20812024](http://www.uniprot.org/citations/20812024), PubMed: [25514493](http://www.uniprot.org/citations/25514493), PubMed: [26455326](http://www.uniprot.org/citations/26455326), PubMed: [26816381](http://www.uniprot.org/citations/26816381)). Directly and specifically binds to the consensus sequence 5'-[GA][CA]GACCCCCCCCC-3' and represses transcription both by regulating the organization of chromatin and through the direct recruitment of transcription factors to gene regulatory regions (PubMed: [12004059](http://www.uniprot.org/citations/12004059), PubMed: [17595526](http://www.uniprot.org/citations/17595526), PubMed: [20812024](http://www.uniprot.org/citations/20812024), PubMed: [25514493](http://www.uniprot.org/citations/25514493), PubMed: [26816381](http://www.uniprot.org/citations/26816381)). Negatively regulates SMAD4 transcriptional activity in the TGF-beta signaling pathway through these two mechanisms (PubMed: [25514493](http://www.uniprot.org/citations/25514493)). That is, recruits the chromatin regulator HDAC1 to the SMAD4-DNA complex and in parallel prevents the recruitment of the transcriptional activators CREBBP and EP300 (PubMed: [25514493](http://www.uniprot.org/citations/25514493)). Collaborates with transcription factors like RELA to modify the accessibility of gene transcription regulatory regions to secondary transcription factors (By similarity). Also directly interacts with transcription factors like SP1 to prevent their binding to DNA (PubMed: [12004059](http://www.uniprot.org/citations/12004059)). Functions as an androgen receptor/AR transcriptional corepressor by recruiting NCOR1 and NCOR2 to the androgen response elements/ARE on target genes (PubMed: [20812024](http://www.uniprot.org/citations/20812024)). Thereby, negatively regulates androgen receptor signaling and androgen- induced cell proliferation (PubMed: [20812024](http://www.uniprot.org/citations/20812024)). Involved in the switch between fetal and adult globin expression during erythroid cells maturation (PubMed: [26816381](http://www.uniprot.org/citations/26816381)). Through its interaction with the NuRD complex regulates chromatin at the fetal globin genes to repress their transcription (PubMed: [26816381](http://www.uniprot.org/citations/26816381)). Specifically represses the transcription of the tumor suppressor ARF isoform from the CDKN2A gene (By similarity). Efficiently abrogates E2F1-dependent CDKN2A transactivation (By similarity). Regulates chondrogenesis through the transcriptional repression of specific genes via a mechanism that also requires histone deacetylation (By similarity). Regulates cell proliferation through the transcriptional regulation of genes involved in glycolysis (PubMed: [26455326](http://www.uniprot.org/citations/26455326)). Involved in adipogenesis through the regulation of genes involved in adipocyte differentiation (PubMed: [14701838](http://www.uniprot.org/citations/14701838)). Plays a key role in the differentiation of lymphoid progenitors into B and T lineages (By similarity). Promotes differentiation towards the B lineage by inhibiting the T-cell instructive Notch signaling pathway

through the specific transcriptional repression of Notch downstream target genes (By similarity). Also regulates osteoclast differentiation (By similarity). May also play a role, independently of its transcriptional activity, in double-strand break repair via classical non-homologous end joining/cNHEJ (By similarity). Recruited to double-strand break sites on damage DNA, interacts with the DNA-dependent protein kinase complex and directly regulates its stability and activity in DNA repair (By similarity). May also modulate the splicing activity of KHDRBS1 toward BCL2L1 in a mechanism which is histone deacetylase-dependent and thereby negatively regulates the pro-apoptotic effect of KHDRBS1 (PubMed:24514149).

Cellular Location

Nucleus. Note=Recruited to double-strand break sites of damaged DNA.
{ECO:0000250|UniProtKB:O88939}

Tissue Location

Widely expressed (PubMed:9927193). In normal thymus, expressed in medullary epithelial cells and Hassle's corpuscles (at protein level) (PubMed:15662416). In tonsil, expressed in squamous epithelium and germinal center lymphocytes (at protein level) (PubMed:15662416). Up-regulated in a subset of lymphomas, as well as in a subset of breast, lung, colon, prostate and bladder carcinomas (at protein level) (PubMed:15662416). Expressed in adipose tissues (PubMed:14701838).

ZBTB7/Pokemon 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 Cytometry](#)
- [Cell Culture](#)

ZBTB7/Pokemon Antibody - Images

ZBTB7/Pokemon Antibody - Background

Zinc finger and BTB domain-containing protein 7A (LRF, Pokemon, FBI1) is a transcriptional repressor encoded by the ZBTB7A gene that belongs to the POK (POZ and Kruppel)/ZBTB (zinc finger and BTB) family. LRF is broadly expressed with elevated expression in a variety of cancers relative to normal tissues, including non-small cell lung cancer, breast cancer, ovarian cancer, prostate cancer, and hepatocellular carcinoma. Research studies suggest that LRF acts as an oncogene through various mechanisms including repression of the tumor suppressors ARF and Rb, and repression of the cell cycle arrest factor p21Cip1. The LRF transcription factor plays key roles during several stages of hematopoiesis including promoting lymphoid progenitor cells to commit to B cell differentiation by repressing T cell-promoting Notch signals, and promoting cell survival during terminal erythroid differentiation through suppression of the proapoptotic factor Bim.