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Anti-ZBTB7A Rabbit Monoclonal Antibody
Catalog # ABO15746

Specification

Anti-ZBTB7A Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP**
Primary Accession	O95365
Host	**Rabbit**
Isotype	**IgG**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-ZBTB7A Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human.

Anti-ZBTB7A Rabbit Monoclonal Antibody - Additional Information

Gene ID 51341

Other Names
Zinc finger and BTB domain-containing protein 7A, Factor binding IST protein 1, FBI-1, Factor that binds to inducer of short transcripts protein 1, HIV-1 1st-binding protein 1, Leukemia/lymphoma-related factor, POZ and Krueppel erythroid myeloid ontogenic factor, POK erythroid myeloid ontogenic factor, Pokemon, Pokemon 1, TTF-I-interacting peptide 21 {ECO:0000312|EMBL:AAB58414.1}, TIP21 {ECO:0000312|EMBL:AAB58414.1}, Zinc finger protein 857A, ZBTB7A (HGNC:18078)

Calculated MW
75 kDa KDa

Application Details
WB 1:1000-1:5000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human ZBTB7A

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

Anti-ZBTB7A Rabbit Monoclonal 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, PubMed:17595526, PubMed:20812024, PubMed:25514493, PubMed:26455326, PubMed: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, PubMed:17595526, PubMed:20812024, PubMed:25514493, PubMed:26816381). Negatively regulates SMAD4 transcriptional activity in the TGF-beta signaling pathway through these two mechanisms (PubMed: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). 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). Functions as an androgen receptor/AR transcriptional corepressor by recruiting NCOR1 and NCOR2 to the androgen response elements/ARE on target genes (PubMed:20812024). Thereby, negatively regulates androgen receptor signaling and androgen- induced cell proliferation (PubMed:20812024). Involved in the switch between fetal and adult globin expression during erythroid cells maturation (PubMed:26816381). Through its interaction with the NuRD complex regulates chromatin at the fetal globin genes to repress their transcription (PubMed: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). Involved in adipogenesis through the regulation of genes involved in adipocyte differentiation (PubMed: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).

Anti-ZBTB7A Rabbit Monoclonal 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

Anti-ZBTB7A Rabbit Monoclonal Antibody - Images

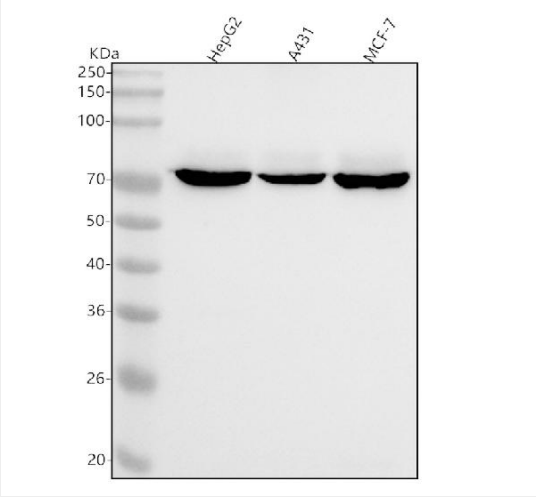

Figure 1. Western blot analysis of ZBTB7A using anti-ZBTB7A antibody (M03081).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human A431 whole cell lysates,
Lane 3: human MCF-7 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90

minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ZBTB7A antigen affinity purified monoclonal antibody (Catalog # M03081) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ZBTB7A at approximately 75 kDa. The expected band size for ZBTB7A is at 61 kDa.