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# Anti-DAXX (RABBIT) Antibody
**DAXX Antibody**
**Catalog # ASR5375**

## Specification

### Anti-DAXX (RABBIT) Antibody - Product Information

| | |
|---|---|
| Host | **Rabbit** |
| Conjugate | **Unconjugated** |
| Target Species | **Human** |
| Reactivity | **Human** |
| Clonality | **Polyclonal** |
| Application | **WB, E, I, LCI** |
| Application Note | **This affinity-purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 81 kDa in size corresponding to DAXX protein by western blotting in the appropriate cell lysate or extract.** |
| Physical State | **Liquid (sterile filtered)** |
| Buffer | **0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2** |
| Immunogen | **This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near amino acids 250-275 of human DAXX protein.** |
| Preservative | **0.01% (w/v) Sodium Azide** |

### Anti-DAXX (RABBIT) Antibody - Additional Information

**Gene ID** 1616

**Other Names**
1616

**Purity**
This affinity-purified antibody is directed against human DAXX protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross reactivity with DAXX protein from human, mouse, and rat based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.

**Storage Condition**
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**
This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-DAXX (RABBIT) Antibody - Protein Information

**Name** DAXX

**Synonyms** BING2, DAP6

**Function**
Transcription corepressor known to repress transcriptional potential of several sumoylated transcription factors. Down-regulates basal and activated transcription. Its transcription repressor activity is modulated by recruiting it to subnuclear compartments like the nucleolus or PML/POD/ND10 nuclear bodies through interactions with MCSR1 and PML, respectively. Seems to regulate transcription in PML/POD/ND10 nuclear bodies together with PML and may influence TNFRSF6-dependent apoptosis thereby. Inhibits transcriptional activation of PAX3 and ETS1 through direct protein-protein interactions. Modulates PAX5 activity; the function seems to involve CREBBP. Acts as an adapter protein in a MDM2-DAXX-USP7 complex by regulating the RING-finger E3 ligase MDM2 ubiquitination activity. Under non-stress condition, in association with the deubiquitinating USP7, prevents MDM2 self-ubiquitination and enhances the intrinsic E3 ligase activity of MDM2 towards TP53, thereby promoting TP53 ubiquitination and subsequent proteasomal degradation. Upon DNA damage, its association with MDM2 and USP7 is disrupted, resulting in increased MDM2 autoubiquitination and consequently, MDM2 degradation, which leads to TP53 stabilization. Acts as a histone chaperone that facilitates deposition of histone H3.3. Acts as a targeting component of the chromatin remodeling complex ATRX:DAXX which has ATP-dependent DNA translocase activity and catalyzes the replication-independent deposition of histone H3.3 in pericentric DNA repeats outside S-phase and telomeres, and the in vitro remodeling of H3.3-containing nucleosomes. Does not affect the ATPase activity of ATRX but alleviates its transcription repression activity. Upon neuronal activation associates with regulatory elements of selected immediate early genes where it promotes deposition of histone H3.3 which may be linked to transcriptional induction of these genes. Required for the recruitment of histone H3.3:H4 dimers to PML-nuclear bodies (PML-NBs); the process is independent of ATRX and facilitated by ASF1A; PML-NBs are suggested to function as regulatory sites for the incorporation of newly synthesized histone H3.3 into chromatin. In case of overexpression of centromeric histone variant CENPA (as found in various tumors) is involved in its mislocalization to chromosomes; the ectopic localization involves a heterotypic tetramer containing CENPA, and histones H3.3 and H4 and decreases binding of CTCF to chromatin. Proposed to mediate activation of the JNK pathway and apoptosis via MAP3K5 in response to signaling from TNFRSF6 and TGFBR2. Interaction with HSPB1/HSP27 may prevent interaction with TNFRSF6 and MAP3K5 and block DAXX-mediated apoptosis. In contrast, in lymphoid cells JNC activation and TNFRSF6-mediated apoptosis may not involve DAXX. Shows restriction activity towards human cytomegalovirus (HCMV). Plays a role as a positive regulator of the heat shock transcription factor HSF1 activity during the stress protein response (PubMed:<a href="http://www.uniprot.org/citations/15016915" target="_blank">15016915</a>).

**Cellular Location**
Cytoplasm. Nucleus, nucleoplasm. Nucleus, PML body. Nucleus, nucleolus. Chromosome, centromere Note=Dispersed throughout the nucleoplasm, in PML/POD/ND10 nuclear bodies, and in nucleoli (Probable). Colocalizes with histone H3.3, ATRX, HIRA and ASF1A at PML-nuclear bodies (PubMed:12953102, PubMed:14990586, PubMed:23222847, PubMed:24200965). Colocalizes with a subset of interphase centromeres, but is absent from mitotic centromeres (PubMed:9645950). Detected in cytoplasmic punctate structures (PubMed:11842083). Translocates from the nucleus to the cytoplasm upon glucose deprivation or oxidative stress (PubMed:12968034). Colocalizes with RASSF1 in the nucleus (PubMed:18566590). Colocalizes with USP7 in nucleoplasma with accumulation in speckled structures (PubMed:16845383) [Isoform gamma]: Nucleus. Note=Diffuse

nuclear distribution pattern and no comparable dot-like accumulation of isoform 1

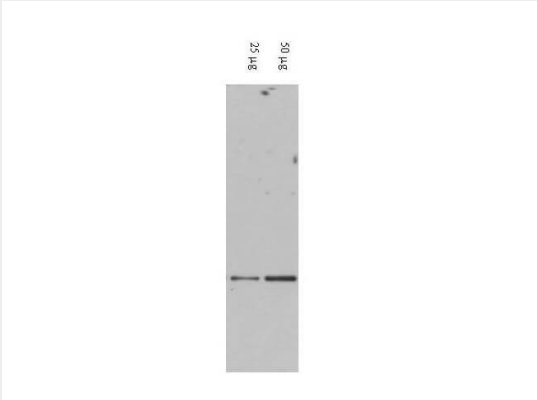
**Tissue Location**
Ubiquitous.

## Anti-DAXX (RABBIT) 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-DAXX (RABBIT) Antibody - Images




Western blot using Rockland's affinity purified anti-DAXX antibody shows detection of DAXX in RWPE-1 cell extracts. The membrane was probed with the primary antibody diluted to 1:200, and further probed with peroxidase conjugated anti-Rabbit IgG at a 1:25,000 dilution. Personal Communication, Jie LIU, CCR-NCI, Bethesda, MD.

## Anti-DAXX (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI). DAXX, the Death domain-associated protein 6, resides in multiple locations in the nucleus and in the cytoplasm and interacts with a wide variety of proteins, such as apoptosis antigen Fas, centromere protein C, and transcription factor erythroblastosis virus E26 oncogene homolog 1. In the nucleus, DAXX functions as a potent transcription corepressor that binds to several sumoylated transcription factors. Its repression can be relieved by the sequestration of this protein into promyelocytic leukemia nuclear bodies or nucleoli through interactions with MCSR1 and PML. These interactions may regulate TNFRSF6-dependent apoptosis through the meditations of the activation of the JNK pathway and apoptosis via MAP3K5 in response to signaling from TNFRSF6 and TGFBR2. Interaction with HSPB1/HSP27 may prevent interaction with TNFRSF6 and MAP3K5 and block DAXX-mediated apoptosis. In contrast, in lymphoid cells JNC activation and TNFRSF6-mediated apoptosis may not involve DAXX. The subcellular localization and function of this protein are modulated by post-translational modifications, including sumoylation, phosphorylation and polyubiquitination. DAXX acts as histone chaperone that facilitates deposition

of histone H3.3. In case of overexpression of centromeric histone variant CENPA (as found in various tumors) is involved in its mislocalization to chromosomes; the ectopic localization involves a heterotypic tetramer containing CENPA, and histones H3.3 and H4 and decreases binding of CTCF to chromatin. Anti-DAXX Antibody is useful for researchers interested in Apoptosis, TGF-Beta, MAPK Signaling Pathway, Cancer, Immunology and Nuclear Signaling research.