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BAZ1B / WSTF Antibody (clone 5E9)

Mouse Monoclonal Antibody
Catalog # ALS14424

Specification

BAZ1B / WSTF Antibody (clone 5E9) - Product Information

Application	**IHC**
Primary Accession	Q9UIG0
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**171kDa KDa**

BAZ1B / WSTF Antibody (clone 5E9) - Additional Information

Gene ID 9031

Other Names
Tyrosine-protein kinase BAZ1B, 2.7.10.2, Bromodomain adjacent to zinc finger domain protein 1B, Williams syndrome transcription factor, Williams-Beuren syndrome chromosomal region 10 protein, Williams-Beuren syndrome chromosomal region 9 protein, hWALp2, BAZ1B, WBSC10, WBSCR10, WBSCR9, WSTF

Target/Specificity
Human BAZ1B

Reconstitution & Storage
Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Precautions
BAZ1B / WSTF Antibody (clone 5E9) is for research use only and not for use in diagnostic or therapeutic procedures.

BAZ1B / WSTF Antibody (clone 5E9) - Protein Information

Name BAZ1B

Synonyms WBSC10, WBSCR10, WBSCR9, WSTF

Function
Atypical tyrosine-protein kinase that plays a central role in chromatin remodeling and acts as a transcription regulator (PubMed:19092802). Involved in DNA damage response by phosphorylating 'Tyr-142' of histone H2AX (H2AXY142ph) (PubMed:19092802, PubMed:19234442). H2AXY142ph plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress (PubMed:19092802, PubMed:<a

href="http://www.uniprot.org/citations/19234442" target="_blank">19234442). Regulatory subunit of the ATP-dependent WICH-1 and WICH-5 ISWI chromatin remodeling complexes, which form ordered nucleosome arrays on chromatin and facilitate access to DNA during DNA-templated processes such as DNA replication, transcription, and repair (PubMed:11980720, PubMed:28801535). Both complexes regulate the spacing of nucleosomes along the chromatin and have the ability to slide mononucleosomes to the center of a DNA template (PubMed:28801535). The WICH-1 ISWI chromatin remodeling complex has a lower ATP hydrolysis rate than the WICH-5 ISWI chromatin remodeling complex (PubMed:28801535). The WICH-5 ISWI chromatin-remodeling complex regulates the transcription of various genes, has a role in RNA polymerase I transcription (By similarity). Within the B-WICH complex has a role in RNA polymerase III transcription (PubMed:16603771). Mediates the recruitment of the WICH-5 ISWI chromatin remodeling complex to replication foci during DNA replication (PubMed:15543136).

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00063, ECO:0000255|PROSITE-ProRule:PRU00475, ECO:0000269|PubMed:11980720, ECO:0000269|PubMed:15543136, ECO:0000269|PubMed:16603771, ECO:0000269|PubMed:25593309}. Note=Accumulates in pericentromeric heterochromatin during replication (PubMed:15543136). Co-localizes with PCNA at replication foci during S phase (PubMed:15543136). Co-localizes with SMARCA5/SNF2H at replication foci during late-S phase (PubMed:15543136). Also localizes to replication foci independently of SMARCA5/SNF2H and PCNA (PubMed:15543136). Localizes to sites of DNA damage (PubMed:25593309).

Tissue Location
Ubiquitously expressed with high levels of expression in heart, brain, placenta, skeletal muscle and ovary

BAZ1B / WSTF Antibody (clone 5E9) - 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

BAZ1B / WSTF Antibody (clone 5E9) - Images

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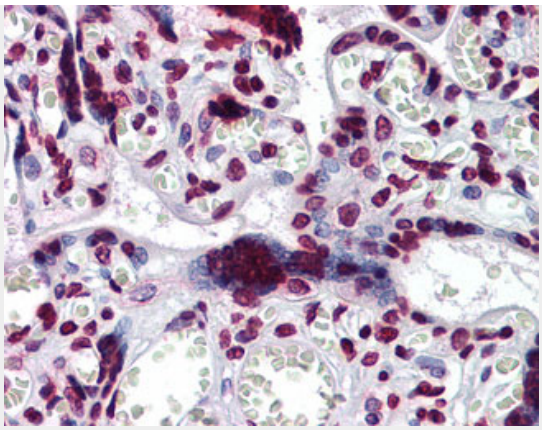

Anti-BAZ1B / WSTF antibody IHC of human placenta.

BAZ1B / WSTF Antibody (clone 5E9) - Background

Atypical tyrosine-protein kinase that plays a central role in chromatin remodeling and acts as a transcription regulator. Involved in DNA damage response by phosphorylating 'Tyr-142' of histone H2AX (H2AXY142ph). H2AXY142ph plays a central role in DNA repair and acts as a mark that distinguishes between apoptotic and repair responses to genotoxic stress. Essential component of the WICH complex, a chromatin remodeling complex that mobilizes nucleosomes and reconfigures irregular chromatin to a regular nucleosomal array structure. The WICH complex regulates the transcription of various genes, has a role in RNA polymerase I and RNA polymerase III transcription, mediates the histone H2AX phosphorylation at 'Tyr-142', and is involved in the maintenance of chromatin structures during DNA replication processes. In the complex, it mediates the recruitment of the WICH complex to replication foci during DNA replication. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated transrepression of the CYP27B1 gene. In the WINAC complex, plays an essential role by targeting the complex to acetylated histones, an essential step for VDR-promoter association.

BAZ1B / WSTF Antibody (clone 5E9) - References

Peoples R.J.,et al.Cytogenet. Cell Genet. 82:238-246(1998).
Lu X.,et al.Genomics 54:241-249(1998).
Jones M.H.,et al.Genomics 63:40-45(2000).
Hillier L.W.,et al.Nature 424:157-164(2003).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.