10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

BAP1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2168a

Specification

BAP1 Antibody (N-term) - Product Information

Application	**WB, IF, IHC-P, FC, IHC,E**
Primary Accession	Q92560
Other Accession	D3ZHS6, Q99PU7, A1L2G3, A2VDM8
Reactivity	**Human, Mouse, Rat**
Predicted	**Bovine, Zebrafish**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**36-66**

BAP1 Antibody (N-term) - Additional Information

Gene ID 8314

Other Names
Ubiquitin carboxyl-terminal hydrolase BAP1, BRCA1-associated protein 1, Cerebral protein 6, BAP1, KIAA0272

Target/Specificity
This BAP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 36-66 amino acids of human BAP1.

Dilution
WB~~1:1000
IF~~1:25
IHC-P~~1:100
FC~~1:25
IHC~~1:250

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
BAP1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

BAP1 Antibody (N-term) - Protein Information

Name BAP1 {ECO:0000303|PubMed:9528852, ECO:0000312|HGNC:HGNC:950}

Function Deubiquitinating enzyme that plays a key role in chromatin by mediating deubiquitination of histone H2A and HCFC1 (PubMed:12485996, PubMed:18757409, PubMed:20436459, PubMed:25451922, PubMed:35051358). Catalytic component of the polycomb repressive deubiquitinase (PR-DUB) complex, a complex that specifically mediates deubiquitination of histone H2A monoubiquitinated at 'Lys-120' (H2AK119ub1) (PubMed:20436459, PubMed:25451922, PubMed:30664650, PubMed:35051358). Does not deubiquitinate monoubiquitinated histone H2B (PubMed:20436459, PubMed:30664650). The PR-DUB complex is an epigenetic regulator of gene expression and acts as a transcriptional coactivator, affecting genes involved in development, cell communication, signaling, cell proliferation and cell viability (PubMed:20805357, PubMed:30664650, PubMed:36180891). Antagonizes PRC1 mediated H2AK119ub1 monoubiquitination (PubMed:30664650). As part of the PR-DUB complex, associates with chromatin enriched in histone marks H3K4me1, H3K4me3, and H3K27Ac, but not in H3K27me3 (PubMed:36180891). Recruited to specific gene-regulatory regions by YY1 (PubMed:20805357). Acts as a regulator of cell growth by mediating deubiquitination of HCFC1 N-terminal and C-terminal chains, with some specificity toward 'Lys-48'- linked polyubiquitin chains compared to 'Lys-63'-linked polyubiquitin chains (PubMed:19188440, PubMed:19815555). Deubiquitination of HCFC1 does not lead to increase stability of HCFC1 (PubMed:19188440, PubMed:19815555). Interferes with the BRCA1 and BARD1 heterodimer activity by inhibiting their ability to mediate ubiquitination and autoubiquitination (PubMed:19117993). It however does not mediate deubiquitination of BRCA1 and BARD1 (PubMed:19117993). Able to mediate autodeubiquitination via intramolecular interactions to counteract monoubiquitination at the nuclear localization signal (NLS), thereby protecting it from cytoplasmic sequestration (PubMed:24703950). Negatively regulates epithelial-mesenchymal transition (EMT) of trophoblast stem cells during placental development by regulating genes involved in epithelial cell integrity, cell adhesion and cytoskeletal organization (PubMed:34170818).

Cellular Location
Cytoplasm. Nucleus. Chromosome. Note=Mainly nuclear (PubMed:24703950, PubMed:30664650). Binds to chromatin (PubMed:30664650). Localizes to the cytoplasm when monoubiquitinated by the E2/E3 hybrid ubiquitin- protein ligase UBE2O (PubMed:24703950). Recruitment to chromatin is dependent on ASXL1/2/3 and recruitment to specific genes on FOXK1/2 (By similarity). Nuclear localization is redundantly mediated by the importin and transportin systems; TNPO1/transportin-1 is the major mediator of nuclear localization (PubMed:35446349) {ECO:0000250|UniProtKB:Q99PU7, ECO:0000269|PubMed:24703950, ECO:0000269|PubMed:30664650, ECO:0000269|PubMed:35446349}

Tissue Location
Highly expressed in testis, placenta and ovary (PubMed:9528852). Expressed in breast (PubMed:9528852). levels in the placenta increase over the course of pregnancy (PubMed:34170818)

BAP1 Antibody (N-term) - 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

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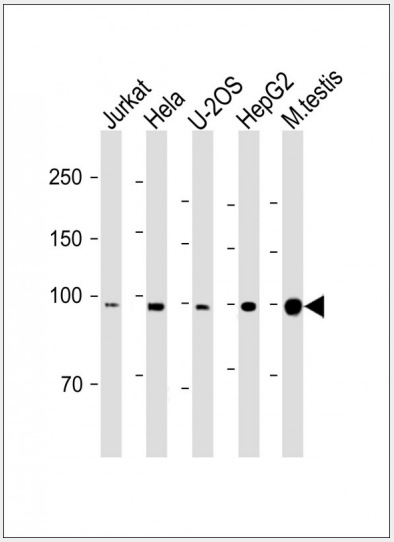
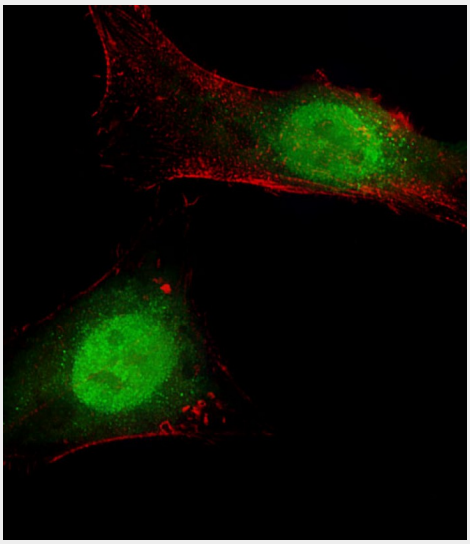
BAP1 Antibody (N-term) - Images



All lanes: Anti-BAP1 Antibody (N-term) at 1:1000 dilution Lane 1: Jurkat whole cell lysate Lane 2: Hela whole cell lysate Lane 3: U-2OS whole cell lysate Lane 4: HepG2 whole cell lysate Lane 5: Mouse testis lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 95 KDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized Hela cells labeling BAP1 with AP2168a at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image showing Nucleus and Weak Cytoplasm staining on Hela cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin(red). The nuclear counter stain is DAPI (blue).

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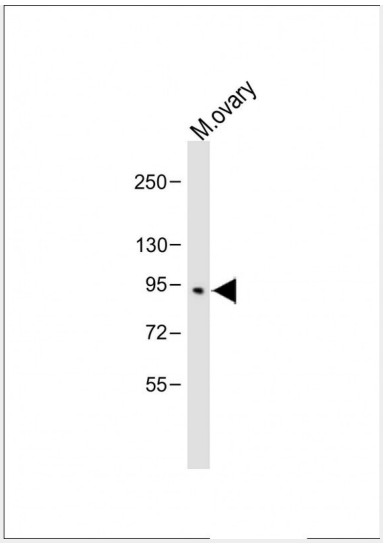
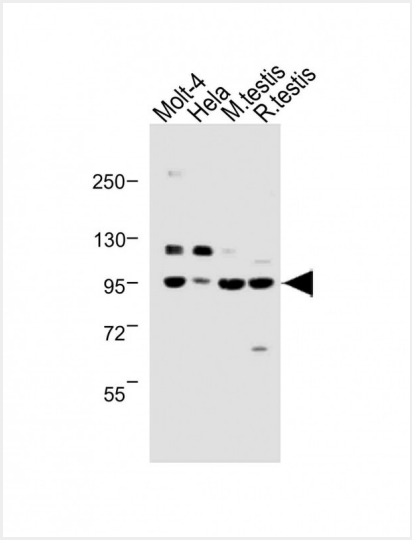


Anti-BAP1 Antibody (N-term) at 1:2000 dilution + Mouse ovary lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 95 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-BAP1 Antibody (N-term) at 1:1000 dilution Lane 1: Molt-4 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: Mouse testis lysate Lane 4: Rat testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 95 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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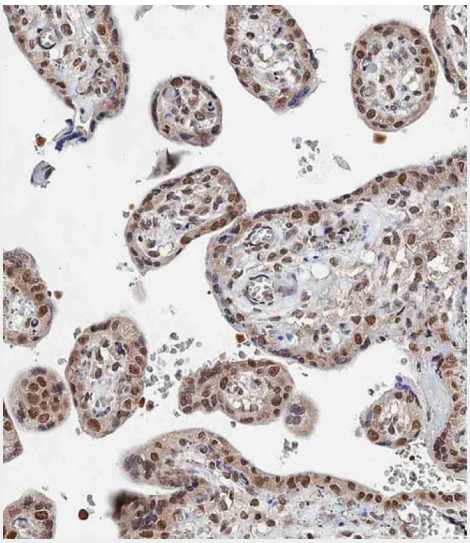
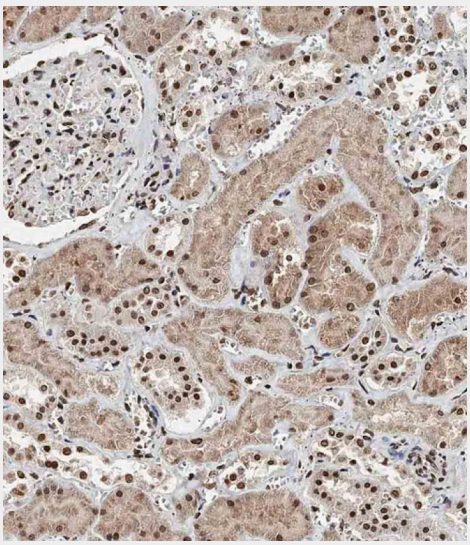


Immunohistochemical analysis of AP2168a on paraffin-embedded Human placenta tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunohistochemical analysis of AP2168a on paraffin-embedded Human kidney tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.

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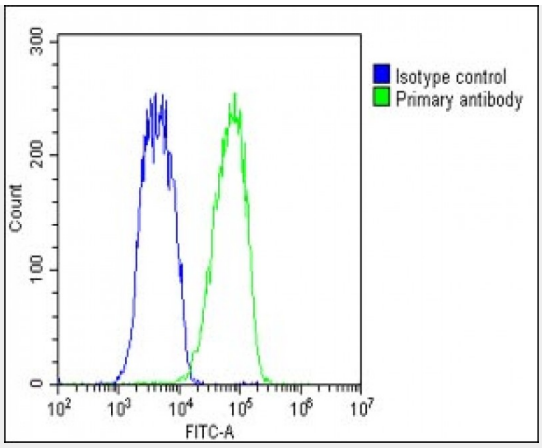
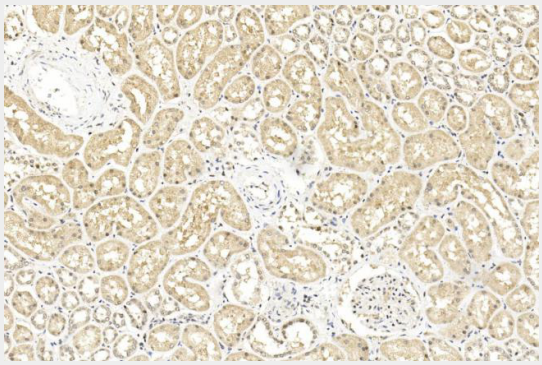


Overlay histogram showing Hela cells stained with AP2168a(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP2168a, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(1583138) at 1/200 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Immunohistochemical analysis of paraffin-embedded Human kidney section using Pink1(Cat#AP2168A). AP2168A was diluted at 1:250 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

BAP1 Antibody (N-term) - Background

'BRCA1-associated protein-1,' or BAP1 interacts with the RING finger domain of BRCA1. The N-terminal 240 amino acids of the predicted 729-amino acid human protein show homology to ubiquitin C-terminal hydrolases (UCHs), thiol proteases that catalyze proteolytic processing of ubiquitin. In addition, BAP1 contains an acidic region, a highly charged C-terminal region, and 2 putative nuclear localization signals.. BAP1 and BRCA1 associate in vivo and have overlapping subnuclear localization patterns.1 BAP1 enhances BRCA1-mediated inhibition of breast cancer cell growth. Northern blot analysis indicates that BAP1 is expressed as a 4-kb mRNA in all human tissues tested, with A 4.8-kb transcript expressed exclusively in testis. Northern blot analysis and in situ hybridization reveal that BAP1 and BRCA1 are coexpressed during murine breast development and remodeling. The BAP1 gene has been mapped to 3p21.3, a region of loss of heterozygosity for breast cancer as well as frequently deleted in lung carcinomas.1 Intragenic homozygous rearrangements and deletions of BAP1 appear in lung carcinoma cell lines. It has been postulated that BAP1 is a tumor suppressor gene that functions in the BRCA1 growth control pathway.1

BAP1 Antibody (N-term) - Citations

- Germline BAP1 mutation predisposes to uveal melanoma, lung adenocarcinoma, meningioma, and other cancers.

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