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**Product Name: KD-Validated TP53BP1 Mouse Monoclonal Antibody****Catalog #: KVA00510**

For research use only.

**Summary**

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Mouse                                                                       |
| <b>Application</b>  | WB,FCM,ICC,IHC-P                                                            |
| <b>Reactivity</b>   | Human,M                                                                     |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Mouse IgG2b                                                                 |
| <b>Clonality</b>    | Mouse mAb                                                                   |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

**Application**

|                         |                                                                          |
|-------------------------|--------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 213.6kDa                                                  |

**Antigen Information**

|                          |                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | TP53BP1<br>TP53BP1; Tumor Protein P53 Binding Protein 1; 53BP1; TDRD30; P202; TP53-Binding Protein                                                  |
| <b>Alternative Names</b> | 1; P53-Binding Protein 1; P53BP1; Tumor Suppressor P53-Binding Protein 1; Tumor Protein P53-Binding Protein, 1; Tumor Protein 53-Binding Protein, 1 |
| <b>Gene ID</b>           | 7158.0                                                                                                                                              |
| <b>SwissProt ID</b>      | Q12888                                                                                                                                              |
| <b>Immunogen</b>         | Recombinant protein of human TP53BP1                                                                                                                |

**Background**

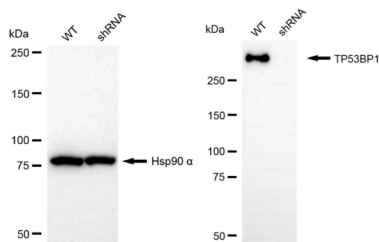
This gene encodes a protein that functions in the DNA double-strand break repair pathway choice, promoting non-homologous end joining (NHEJ) pathways, and limiting homologous recombination. This protein plays multiple roles in the

DNA damage response, including promoting checkpoint signaling following DNA damage, acting as a scaffold for recruitment of DNA damage response proteins to damaged chromatin, and promoting NHEJ pathways by limiting end resection following a double-strand break. These roles are also important during V(D)J recombination, class switch recombination and at unprotected telomeres. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2017]

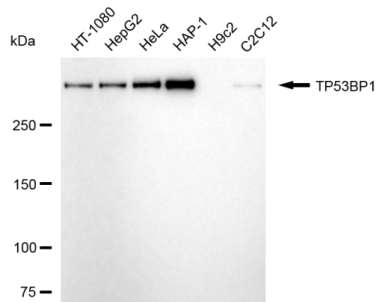
## Research Area

Epigenetics and Nuclear Signaling

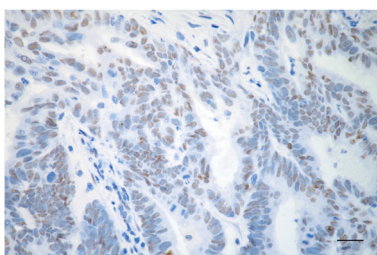
## Image Data



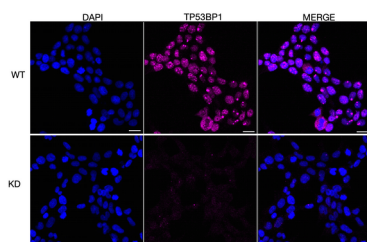
Western blotting analysis using TP53BP1 antibody (KVA00510). TP53BP1 expression in wild-type (WT) and TP53BP1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with TP53BP1 antibody (KVA00510, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



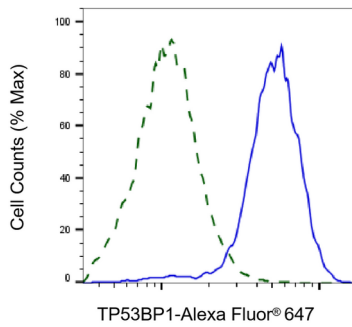
Western blotting analysis using TP53BP1 antibody (KVA00510). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with TP53BP1 antibody (KVA00510, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



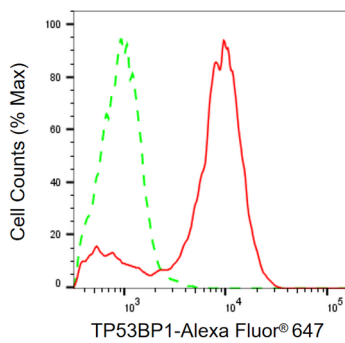
Immunohistochemistry was performed on paraffin-embedded human endometrial carcinoma using TP53BP1 antibody (KVA00510, 1:2000). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using TP53BP1 antibody (KVA00510, 1:1,000). Top panel: wild-type (WT); Bottom panel: TP53BP1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; TP53BP1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Validation of TP53BP1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with TP53BP1 antibody (KVA00510, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of TP53BP1 expression in HAP-1 cells using TP53BP1 antibody (KVA00510, 1:2,000). Green, isotype control; red, TP53BP1.