

**Product Name: KD-Validated GDI1 Mouse Monoclonal Antibody****Catalog #: KVA00530**

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                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Mouse IgG1                                                                  |
| <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 1:200-1:1,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 50.6kDa                                                   |

**Antigen Information**

|                          |                                                                                                                                                                                                                                            |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | GDI1<br>GDI1; GDP Dissociation Inhibitor 1; RABGDIA; OPHN2; Oligophrenin-2; XAP-4; GDIL; Guanosine Diphosphate Dissociation Inhibitor 1; Rab GDP-Dissociation Inhibitor, Alpha; Rab                                                        |
| <b>Alternative Names</b> | GDP Dissociation Inhibitor Alpha; Protein XAP-4; Rab GDI Alpha; FLJ41411; MRX41; MRX48; GDI-1; Testis Secretory Sperm-Binding Protein Li 208a; Mental Retardation, X-Linked 41; Mental Retardation, X-Linked 48; RABGD1A; XLID41; XAP4; 1A |
| <b>Gene ID</b>           | 2664.0                                                                                                                                                                                                                                     |
| <b>SwissProt ID</b>      | P31150                                                                                                                                                                                                                                     |
| <b>Immunogen</b>         | Recombinant protein of human GDI1                                                                                                                                                                                                          |

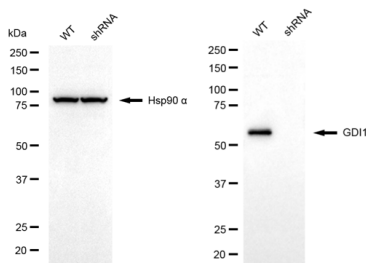
**Background**

GDP dissociation inhibitors are proteins that regulate the GDP-GTP exchange reaction of members of the rab family, small GTP-binding proteins of the ras superfamily, that are involved in vesicular trafficking of molecules between cellular organelles. GDIs slow the rate of dissociation of GDP from rab proteins and release GDP from membrane-bound rabs. GDI1 is expressed primarily in neural and sensory tissues. Mutations in GDI1 have been linked to X-linked nonspecific cognitive disability. [provided by RefSeq, Jul 2008]

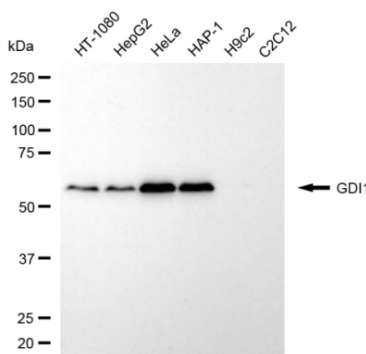
## Research Area

Cell Biology

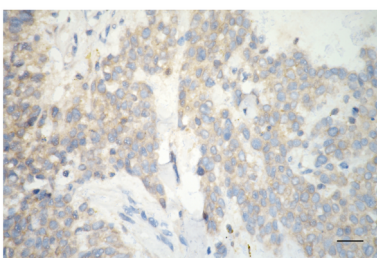
## Image Data



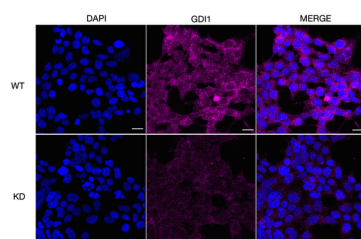
Western blotting analysis using GDI1 antibody (KVA00530). GDI1 expression in wild-type (WT) and GDI1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with GDI1 antibody (KVA00530, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



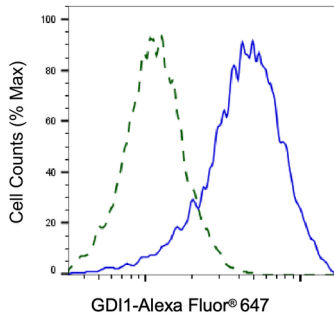
Western blotting analysis using GDI1 antibody (KVA00530). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with GDI1 antibody (KVA00530, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



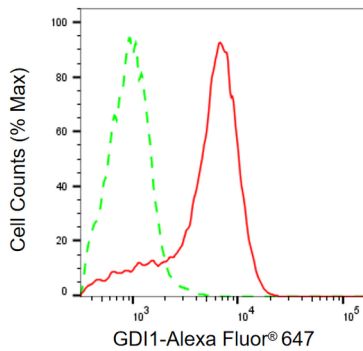
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using GDI1 antibody (KVA00530, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HeLa cells using GDI1 antibody (KVA00530, 1:1,000). Top panel: wild-type (WT); Bottom panel: GDI1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; GDI1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Validation of GDI1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with GDI1 antibody (KVA00530, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of GDI1 expression in HAP-1 cells using GDI1 antibody (KVA00530, 1:2,000). Green, isotype control; red, GDI1.