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**Product Name: KD-Validated Phospho-Beta Arrestin 1 (S412) Recombinant Rabbit Monoclonal Antibody****Catalog #: KVA01369**

For research use only.

**Summary**

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC,IHC-P                                                            |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit 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 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 47.1kDa                                                     |

**Antigen Information**

|                          |                                                                                                                           |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | ARRB1                                                                                                                     |
| <b>Alternative Names</b> | ARRB1; Arrestin Beta 1; ARR1; Non-Visual Arrestin-2; Beta-Arrestin-1; Arrestin 2; Arrestin, Beta 1; Arrestin Beta-1; ARB1 |
| <b>Gene ID</b>           | 408.0                                                                                                                     |
| <b>SwissProt ID</b>      | P49407                                                                                                                    |
| <b>Immunogen</b>         | A synthesized peptide derived from human Phospho-beta Arrestin 1 (S412)                                                   |

**Background**

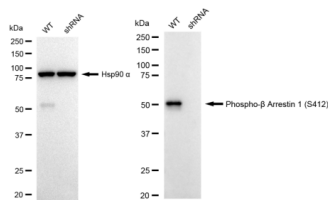
Members of arrestin/beta-arrestin protein family are thought to participate in agonist-mediated desensitization of G-protein-coupled receptors and cause specific dampening of cellular responses to stimuli such as hormones, neurotransmitters, or

sensory signals. Arrestin beta 1 is a cytosolic protein and acts as a cofactor in the beta-adrenergic receptor kinase (BARK) mediated desensitization of beta-adrenergic receptors. Besides the central nervous system, it is expressed at high levels in peripheral blood leukocytes, and thus the BARK/beta-arrestin system is believed to play a major role in regulating receptor-mediated immune functions. Alternatively spliced transcripts encoding different isoforms of arrestin beta 1 have been described. [provided by RefSeq, Jan 2011]

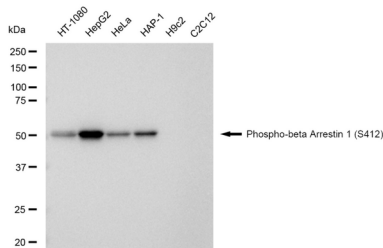
## Research Area

Neuroscience, Signal Transduction, Neuroscience

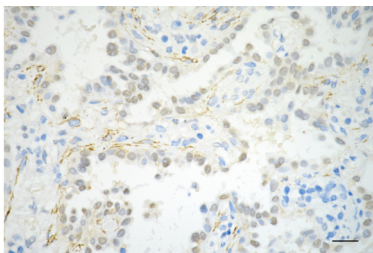
## Image Data



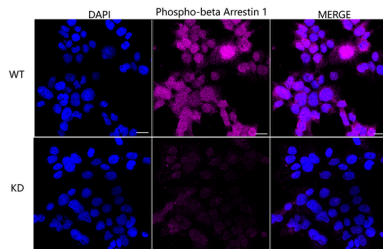
Western blotting analysis using Phospho-beta Arrestin 1 (S412) antibody (KVA01369). Phospho-beta Arrestin 1 (S412) expression in wild type (WT) and Phospho-beta Arrestin 1 (S412) shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



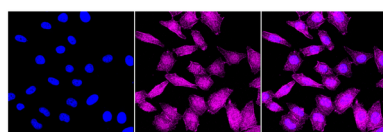
Western blotting analysis using Phospho-beta Arrestin 1 (S412) antibody (KVA01369). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



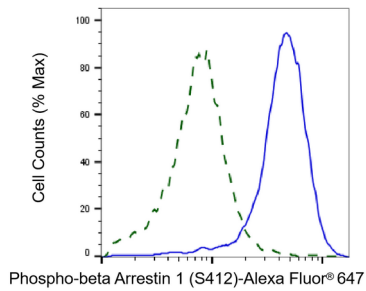
Immunohistochemistry was performed on paraffin-embedded human lung adenocarcinoma using phospho-beta arrestin 1 (S412) antibody (KVA01369, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



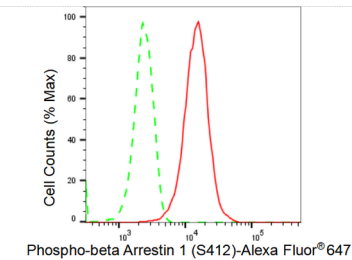
Immunocytochemical staining of HeLa cells using Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:1,000), Top panel: wild-type (WT); Bottom panel: Phospho-beta Arrestin 1 (S412) shRNA knockdown (KD). Nuclei were stained blue with DAPI; Phospho-beta Arrestin 1 (S412) was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:1,000). Nuclei were stained blue with DAPI; Phospho-beta Arrestin 1 (S412) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of beta Arrestin 1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Phospho-beta Arrestin 1 (S412) expression in HepG2 cells using Phospho-beta Arrestin 1 (S412) antibody (KVA01369, 1:2,000). Green, isotype control; red, Phospho-beta Arrestin 1 (S412).