

**Product Name: KD-Validated Keratin 4 Recombinant Rabbit Monoclonal Antibody****Catalog #: KVA01049**

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,Mouse,Rat                                                             |
| <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: 56.1kDa                                                     |

**Antigen Information**

|                          |                                                                                                                                                               |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | KRT4                                                                                                                                                          |
| <b>Alternative Names</b> | KRT4; Keratin 4; CYK4; K4; Keratin, Type II Cytoskeletal 4; CK4; Type-II Keratin Kb4; Cytokeratin 4; CK-4; Keratin 4, Type II; Cytokeratin-4; Keratin-4; WSN1 |
| <b>Gene ID</b>           | 3851.0                                                                                                                                                        |
| <b>SwissProt ID</b>      | P19013                                                                                                                                                        |
| <b>Immunogen</b>         | A synthesized peptide derived from human Cytokeratin 4                                                                                                        |

**Background**

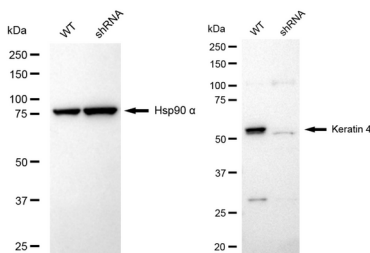
The protein encoded by this gene is a member of the keratin gene family. The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in differentiated layers of the mucosal and esophageal

epithelia with family member KRT13. Mutations in these genes have been associated with White Sponge Nevus, characterized by oral, esophageal, and anal leukoplakia. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. [provided by RefSeq, Jul 2008]

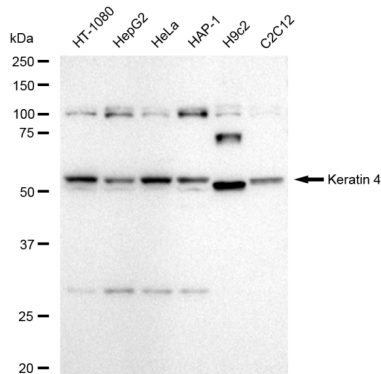
## Research Area

Tags & Cell Markers, Signal Transduction

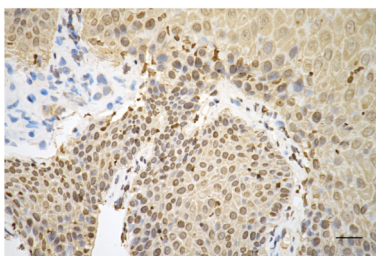
## Image Data



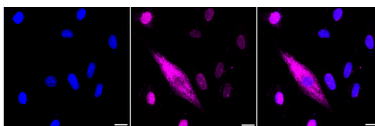
Western blotting analysis using keratin 4 antibody (KVA01049). Keratin 4 expression in wild type (WT) and keratin 4 (KRT4) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with keratin 4 antibody (KVA01049, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



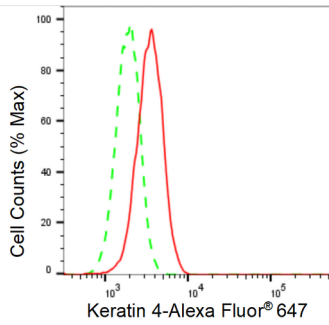
Western blotting analysis using Keratin 4 antibody (KVA01049). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Keratin 4 antibody (KVA01049, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human esophageal carcinoma using keratin 4 antibody (KVA01049, 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 H9C2 cells with Keratin 4 antibody (KVA01049, 1:1,000). Nuclei were stained blue with DAPI; Keratin 4 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.



Flow cytometric analysis of Keratin 4 expression in H9c2 cells using Keratin 4 antibody (KVA01049, 1:2,000). Green, isotype control; red, Keratin 4.