
Product Name: KD-Validated Alpha Smooth Muscle Actin Recombinant Rabbit Monoclonal Antibody**Catalog #: KVAb00261**

For research use only.

Summary

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

Application

Dilution Ratio	WB 1:2,000-1:10,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 42.0kDa

Antigen Information

Gene Name	ACTA2 ACTA2; Actin Alpha 2, Smooth Muscle; ACTSA; Cell Growth-Inhibiting Gene 46 Protein; Actin,
Alternative Names	Alpha 2, Smooth Muscle, Aorta; Actin, Aortic Smooth Muscle; Alpha-Cardiac Actin; Alpha-Actin-2; EC 3.6.4.-; ACTVS; α-SMA; alpha smooth muscle Actin; a SMA
Gene ID	59.0
SwissProt ID	P62736
Immunogen	A synthesized peptide derived from human alpha smooth muscle Actin

Background

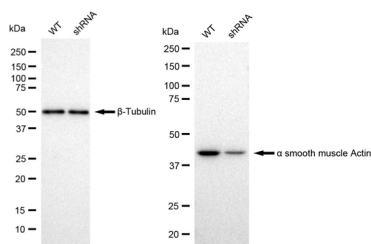
This gene encodes one of six different actin proteins. Actins are highly conserved proteins that are involved in cell motility,

structure, integrity, and intercellular signaling. The encoded protein is a smooth muscle actin that is involved in vascular contractility and blood pressure homeostasis. Mutations in this gene cause a variety of vascular diseases, such as thoracic aortic disease, coronary artery disease, stroke, and Moyamoya disease, as well as multisystemic smooth muscle dysfunction syndrome. [provided by RefSeq, Sep 2017]

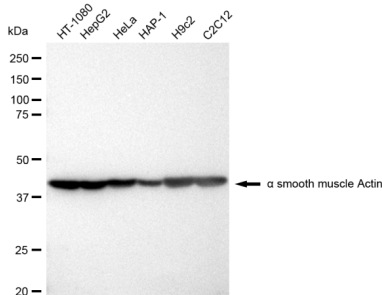
Research Area

Signal Transduction, Stem Cells, Cardiovascular, Developmental Biology

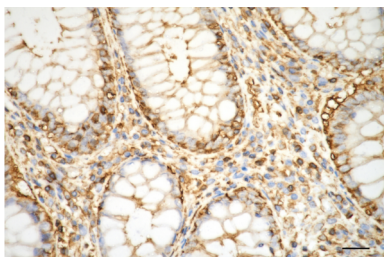
Image Data



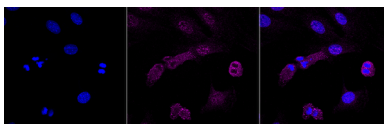
Western blotting analysis using alpha smooth muscle actin antibody (KVA00261). alpha smooth muscle Actin antibody expression in wild type (WT) and ACTA2 shRNA knockdown (KD) HeLa cells with 30 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with alpha smooth muscle actin antibody (KVA00261, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



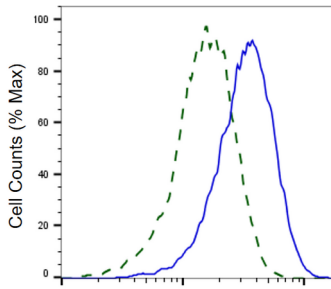
Western blotting analysis using alpha smooth muscle Actin antibody (KVA00261). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with alpha smooth muscle Actin antibody (KVA00261, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using alpha smooth muscle actin antibody (KVA00261, 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 $\times$ objective). Scale bar: 25 μ m.

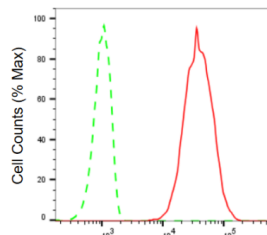


Immunocytochemical staining of HT-1080 cells with alpha smooth muscle Actin antibody (KVA00261, 1:1,000). Nuclei were stained blue with DAPI; alpha smooth muscle Actin was stained magenta with Alexa Fluor[®] 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 μ m.



alpha smooth muscle Actin-Alexa Fluor® 647

Validation of alpha smooth muscle actin knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with alpha smooth muscle actin antibody (KVA00261, 1:2,000) and analyzed using BD flow cytometer.



alpha smooth muscle Actin-Alexa Fluor® 647

Flow cytometric analysis of alpha smooth muscle Actin expression in HT-1080 cells using alpha smooth muscle Actin antibody (KVA00261, 1:2,000). Green, isotype control; red, alpha smooth muscle Actin.