[KD Validated] Anti-AKT1S1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021439

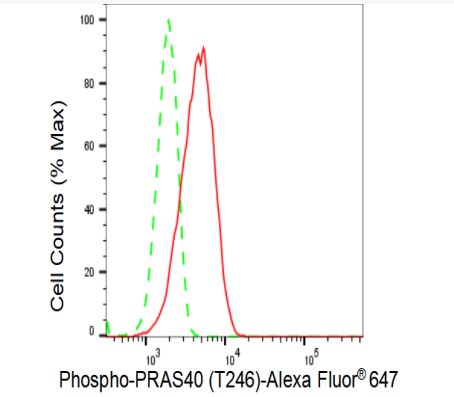
Product Information

Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	29L58S87
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Phospho-PRAS40 (T246)
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-AKT1S1 Rabbit mAb [29L58S87] is for research use only and not for use in diagnostic or therapeutic procedures.

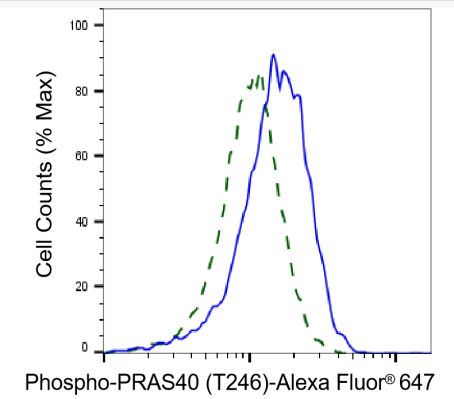
Protein Information

Synonyms	AKT1S1; AKT1 Substrate 1; PRAS40; 40 KDa Proline-Rich AKT Substrate; Proline-Rich AKT1 Substrate 1; MGC2865; Lobe; Proline-Rich Akt Substrate, 40 KDa; AKT1 Substrate 1 (Proline-Rich); AKT1 Substrate 1 (Proline Rich); LOBE.
Calculated MW	Calculated MW: 27 kDa, Observed MW: 40 kDa
Uniprot ID	Q96B36
Gene ID	84335
Background	PRAS40 interacts with Raptor in mTOR complex 1 (mTORC1) in insulin-deprived cells and inhibits the activation of the mTORC1 pathway mediated by the cell cycle protein Rheb. Phosphorylation of PRAS40 by Akt at Thr246 relieves PRAS40 inhibition of mTORC1. mTORC1 in turn phosphorylates PRAS40 at Ser183.

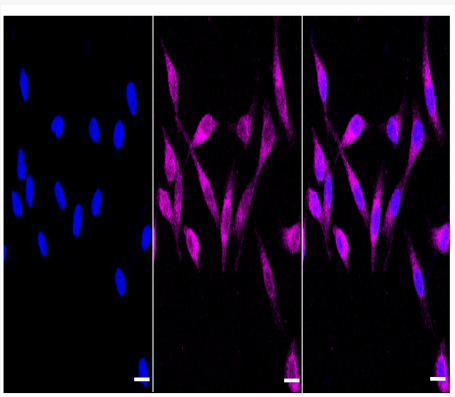
Validation Images



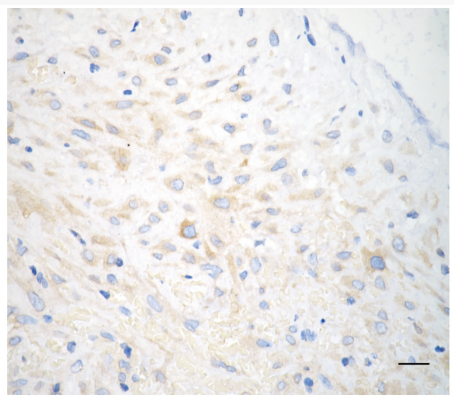
Flow cytometric analysis of Phospho-PRAS40 (T246) expression in HeLa cells using Phospho-PRAS40 (T246) antibody (R021439, 1:2,000). Green, isotype control; red, Phospho-PRAS40 (T246).



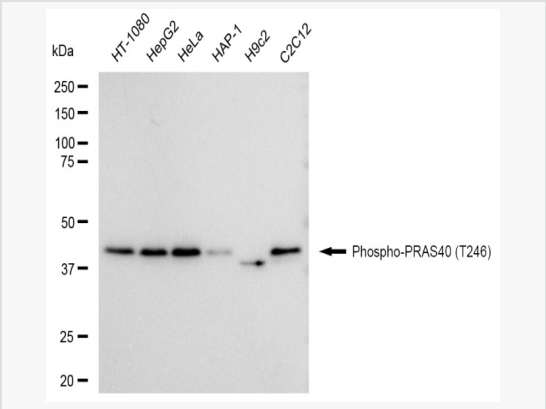
Validation of PRAS40 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phospho-PRAS40 (T246) antibody (R021439, 1:2,000) and analyzed using BD flow cytometer.



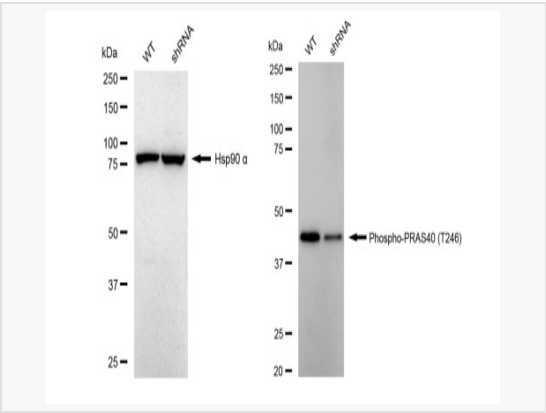
Immunocytochemical staining of HeLa cells with Phospho-PRAS40 (T246) antibody (R021439, 1:1,000). Nuclei were stained blue with DAPI; Phospho-PRAS40 (T246) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar: 20 µm.



Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using phospho-PRAS40 (T246) antibody (R021439, 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.



Western blotting analysis using Phospho-PRAS40 (T246) antibody (R021439). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-PRAS40 (T246) antibody (R021439, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Phospho-PRAS40 (T246) antibody (R021439). Phospho-PRAS40 (T246) expression in wild type (WT) and Phospho-PRAS40 (T246) 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-PRAS40 (T246) antibody (R021439, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.