

**KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI2190****Specification****KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">Q96B36</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 27 kDa , observed, 40 kDa KDa
Gene Name	AKT1S1
Aliases	AKT1 Substrate 1; PRAS40; Lobe; 40 KDa Proline-Rich AKT Substrate; Proline-Rich AKT1 Substrate 1; MGC2865; Proline-Rich Akt Substrate, 40 KDa; AKT1 Substrate 1 (Proline-Rich); AKT1 Substrate 1 (Proline Rich)
Immunogen	A synthesized peptide derived from human PRAS40

**KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Additional Information**

Gene ID	84335
<b>Other Names</b>	
Proline-rich AKT1 substrate 1, 40 kDa proline-rich AKT substrate, AKT1S1 {ECO:0000312 EMBL:AAH16043.1}	

**KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Protein Information****Name** AKT1S1 {ECO:0000312|EMBL:AAH16043.1}**Function**

Negative regulator of the mechanistic target of rapamycin complex 1 (mTORC1), an evolutionarily conserved central nutrient sensor that stimulates anabolic reactions and macromolecule biosynthesis to promote cellular biomass generation and growth (PubMed:<a href="http://www.uniprot.org/citations/17277771" target="\_blank">17277771</a>, PubMed:<a href="http://www.uniprot.org/citations/17386266" target="\_blank">17386266</a>, PubMed:<a href="http://www.uniprot.org/citations/17510057" target="\_blank">17510057</a>, PubMed:<a href="http://www.uniprot.org/citations/29236692" target="\_blank">29236692</a>). In absence of insulin and nutrients, AKT1S1 associates with the mTORC1 complex and directly inhibits mTORC1 activity by blocking the MTOR substrate- recruitment site (PubMed:<a href="http://www.uniprot.org/citations/29236692" target="\_blank">29236692</a>). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:<a href="http://www.uniprot.org/citations/17386266" target="\_blank">17386266</a>, PubMed:<a href="http://www.uniprot.org/citations/18372248" target="\_blank">18372248</a>). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed:<a href="http://www.uniprot.org/citations/18372248" target="\_blank">18372248</a>).

href="http://www.uniprot.org/citations/16174443" target="\_blank">16174443</a>, PubMed:<a href="http://www.uniprot.org/citations/18372248" target="\_blank">18372248</a>). May also play a role in nerve growth factor-mediated neuroprotection (By similarity).

#### Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9D1F4}. Note=Found in the cytosolic fraction of the brain. {ECO:0000250|UniProtKB:Q9D1F4}

#### Tissue Location

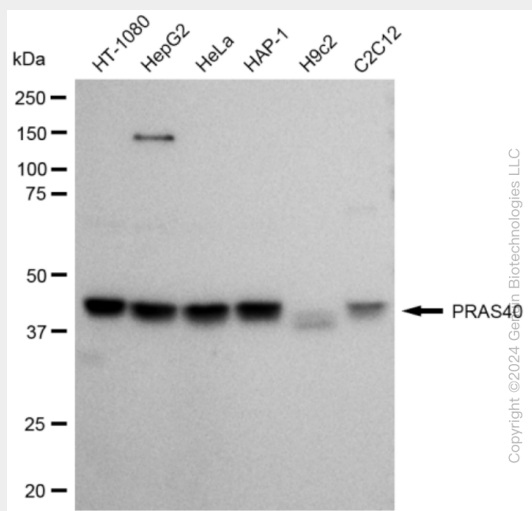
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

### KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Protocols

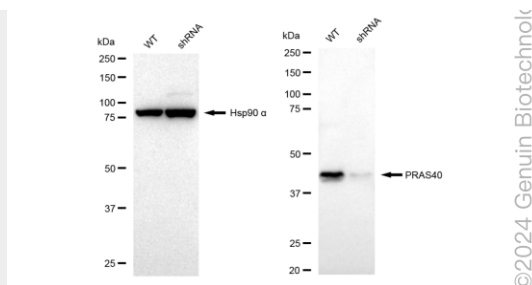
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Images

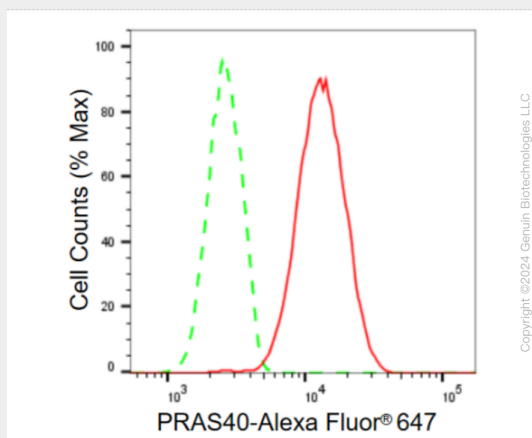


Western blotting analysis using anti-PRAS40 antibody (Cat#AGI2190). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-pPRAS40 antibody (Cat#AGI2190, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



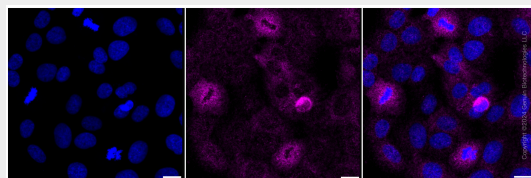
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Western blotting analysis using anti-PRAS40 antibody (Cat#AGI2190). PRAS40 expression in wild type (WT) and PRAS40 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-PRAS40 antibody (Cat#AGI2190, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Flow cytometric analysis of PRAS40 expression in HT-1080 cells using PRAS40 antibody (Cat#AGI2190, 1:2,000). Green, isotype control; red, PRAS40.



Immunocytochemical staining of HT-1080 cells with PRAS40 antibody (Cat#AGI2190, 1:1,000). Nuclei were stained blue with DAPI; PRAS40 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.