

KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2325**Specification****KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Product Information**

Application	WB, ICC
Primary Accession	Q96B36
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 27 kDa; Observed, 40 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
Other Names	
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:17277771, PubMed:17386266, PubMed:17510057, PubMed:29236692). 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:29236692). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:17386266, PubMed:18372248). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed:18372248).

href="http://www.uniprot.org/citations/16174443" target="_blank">16174443, PubMed:18372248). 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

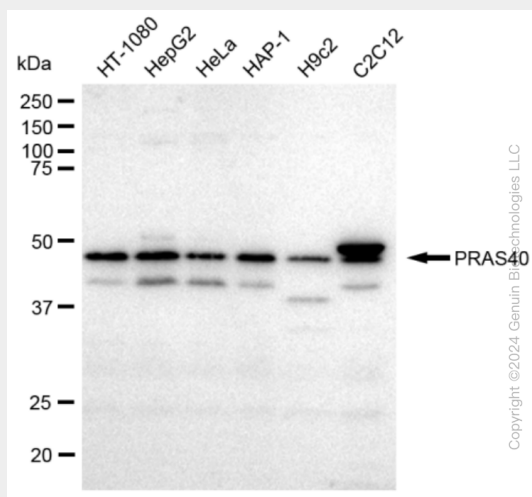
Widely expressed with highest levels of expression in liver and heart. Expressed at higher levels in cancer cell lines (e.g. A-549 and HeLa) than in normal cell lines (e.g. HEK293)

KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Protocols

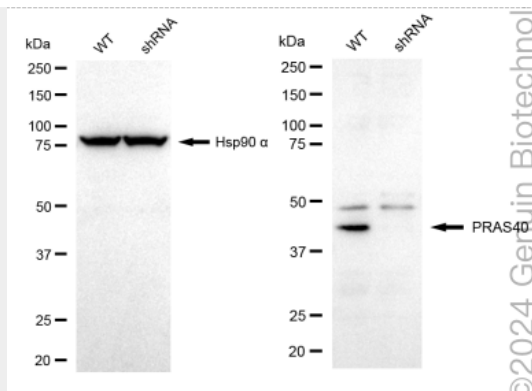
Provided below are standard protocols that you may find useful for product applications.

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

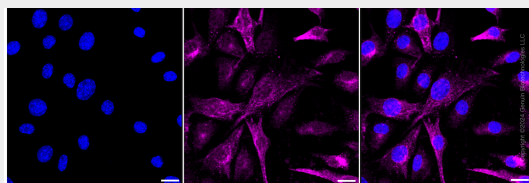
KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-PRAS40 antibody (Cat#AGI2325). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-PRAS40 antibody (Cat#AGI2325, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-PRAS40 antibody (Cat#AGI2325). 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#AGI2325, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Immunocytochemical staining of C2C12 cells with PRAS40 antibody (Cat#AGI2325, 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.