

KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody Rabbit monoclonal antibody Catalog # AGI2325

Specification

KD-Validated Anti-PRAS40 Rabbit Monoclonal Antibody - Product Information

Application Primary Accession Reactivity Clonality Isotype Calculated MW Gene Name Aliases WB, ICC <u>O96B36</u> Rat, Human, Mouse Monoclonal Rabbit IgG Predicted, 27 kDa; Observed, 40 kDa KDa AKT1S1 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) A synthesized peptide derived from human PRAS40

Immunogen

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:17386266, 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:29236692). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:17386266, PubMed:17386266). In response to insulin and nutrients, AKT1S1 dissociates from mTORC1 (PubMed:17386266, PubMed:17386266). Its activity is dependent on its phosphorylation state and binding to 14-3-3 (PubMed:<a



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.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

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 μ g 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 μ m.