Human Phospho-PRAS40(T246) Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1211A
Catalog Number: MAB68901

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human and mouse PRAS40 when phosphorylated at T246.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1211A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human PRAS40 T246 site Accession # Q96B36
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

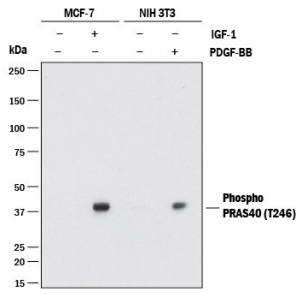
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Human and Mouse Phospho-PRAS40 (T246) by Western Blot. Western blot shows lysates of MCF-7 human breast cancer cell line and NIH-3T3 mouse embryonic fibroblast cell line untreated (-) or treated (+) with 100 ng/ml Recombinant Human IGF-I (Catalog # 291-G1) for 60 minutes and 100 ng/ml Recombinant Human PDGF-BB (Catalog # 220-BB) for 20 minutes. PVDF membrane was probed with 1 µg/mL of Rabbit Anti-Human Phospho-PRAS40 (T246) Monoclonal Antibody (Catalog # MAB68901) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Phospho-PRAS40 (T246) at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

PRAS40 (Proline-rich AKT1 substrate 1), also known as Akt1S1 and p39, is a 40-42 kDa cytoplasmic phosphoprotein that lacks generally recognized structural motifs. It is widely expressed and is considered to be key regulator of mTORC1 (mTOR plus Raptor and GβL), a complex through which Akt signals into the cell. Through phosphorylation, mTORC1 activity is upregulated by PRAS40. In particular, nonphosphorylated PRAS40 binds to and serves as a negative regulator of mTORC1 activity. Upon Insulin signaling, PRAS40 is phosphorylated on Thr246, Ser221 and Ser183. This causes it to bind 14-3-3 and results in its dissociation from mTORC1, freeing up mTOR to regulate (positively or negatively) protein synthesis. Human PRAS40 is 256 amino acids (aa) in length. It contains one extended Pro-rich region (aa 35-96) plus at least nine utilized Ser/Thr phosphorylation sites. There is one alternative start site at Met131. Over aa 119-256, human PRAS40 shares 93% aa sequence identity with mouse PRAS40.

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