Human/Mouse/Rat PKM2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 945131

Catalog Number: MAB72442

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human PKM2 in direct ELISAs. Detects human, mouse, and rat PKM2 in Western blots.
Source	Monoclonal Mouse IgG_{2B} Clone # 945131
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E.coli*-derived recombinant human PKM2 Ser434-Pro531 Accession # P14618
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.

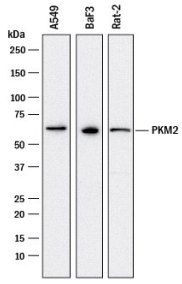
APPLICATIONS

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	0.5 µg/mL	See Below

DATA

Western Blot



Detection of Human, Mouse, and Rat PKM2 by Western Blot. Western blot shows lysates of A549 human lung carcinoma cell line, BaF3 mouse pro-B cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat PKM2 Monoclonal Antibody (Catalog # MAB72442) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for PKM2 at approximately 60 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

PKM2 (Pyruvate Kinase isoenzyme M2; also p58, OIP3, THBP1 and CTHBP) is a 58-60 kDa member of the PK family of enzymes. It is widely expressed, being found both intracellularly and in blood, and represents the more common splice variant of the PKM gene. PKM2 generates ATP and pyruvate by catalyzing the transfer of a phosphoryl group from PEP to ADP. Thus, when active, PKM2 promotes energy production and glycolysis. PKM2 exists as a marginally active monomer, with full activity achieved through homotetramerization. Notably, in tumor cells, select oncogenes appear to induce PKM2 homodimerization which limits PKM2 activity. PKM2 is known to be regulated by the binding of T3 and Fru-1,6-bisP. Human PKM2 is 531 amino acids (aa) in length. It contains a catalytic region (aa 43-527) plus four utilized Ser/Thr and Tyr phosphorylation sites, respectively. PKM1 is another PKM gene splice variant that shows a 45 aa substitution for aa 389-433 of PKM2. This variant shows limited expression (striated muscle) and hyperbolic Michaelis-Menten kinetics. There are additional isoform variants of PKM2 that show either a deletion of aa 59-132, or a 67 aa substitution for aa 1-82. Over aa 434-531, human PKM2 shares 95% aa sequence identity with mouse PKM2.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449