# PKM Antibody

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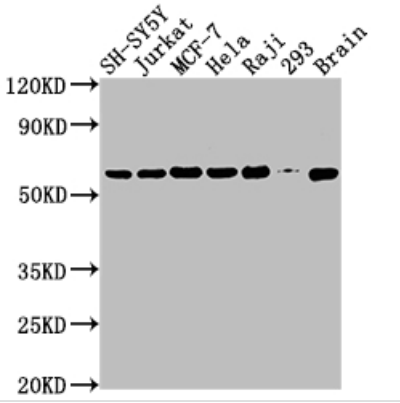
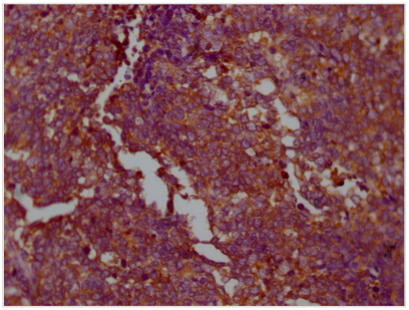
| **Product Code** | CSB-RA632595A0HU |
| **Storage** | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| **Uniprot No.** | P14618 |
| **Immunogen** | A synthesized peptide derived from human PKM2 |
| **Species Reactivity** | Human, Mouse |
| **Tested Applications** | ELISA, WB, IHC, IF, FC, IP; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200, FC:1:20-1:200, IP:1:200-1:1000 |
| **Relevance** | Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP. Stimulates POU5F1-mediated transcriptional activation. Plays a general role in caspase independent cell death of tumor cells. The ratio between the highly active tetrameric form and nearly inactive dimeric form determines whether glucose carbons are channeled to biosynthetic processes or used for glycolytic ATP production. The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival. |
| **Form** | Liquid |
| **Conjugate** | Non-conjugated |
| **Storage Buffer** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| **Purification Method** | Affinity-chromatography |
| **Isotype** | Rabbit IgG |
| **Clonality** | Monoclonal |
| **Product Type** | Recombinant Antibody |
| **Immunogen Species** | Homo sapiens (Human) |
| **Research Area** | Epigenetics and Nuclear Signaling; Cancer; Metabolism; Signal transduction |
| **Gene Names** | PKM |
| **Accession NO.** | 7B2 |

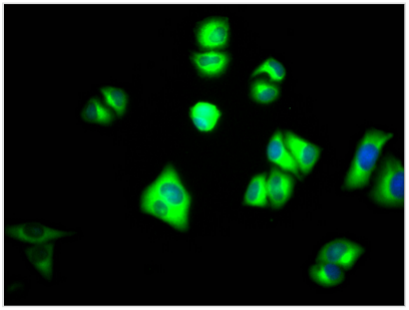
**Image**



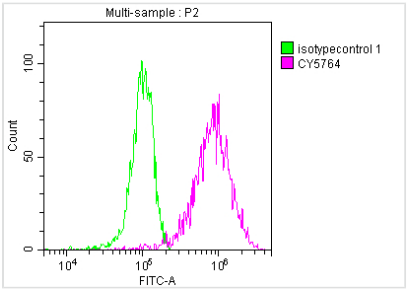

Western Blot
Positive WB detected in: SH-SY5Y whole cell lysate, Jurkat whole cell lysate, MCF-7 whole cell lysate, Hela whole cell lysate, Raji whole cell lysate, 293 whole cell lysate, Mouse brain tissue
All lanes: PKM antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 58, 59, 57 kDa
Observed band size: 58 kDa



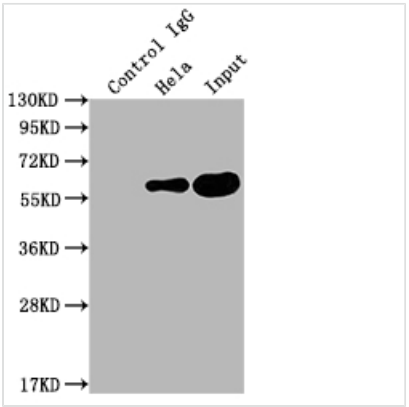
IHC image of CSB-RA632595A0HU diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA632595A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).




Overlay histogram showing HepG2 cells stained with CSB-RA632595A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followedby the antibody (1µg/1*106cells) for 1 h at 4°C.The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4°C. Control antibody (green line) was Rabbit IgG (1µg/1*106cells) used under the same conditions. Acquisition of >10,000 events was performed.




Immunoprecipitating PKM in Hela whole cell lysate
Lane 1: Rabbit control IgG instead of CSB-RA632595A0HU in Hela whole cell lysate. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)
Lane 2: CSB-RA632595A0HU(2µg)+ Hela whole cell lysate(500µg)
Lane 3: Hela whole cell lysate (10µg)

## Description

In the glycolytic pathway, PKM2 as a limiting glycolytic enzyme catalyzes the transfer of a phosphate group from phosphoenolpyruvate to ADP generating pyruvate and ATP, which is important for tumor metabolism and growth. Apart from its pyruvate kinase activity, PKM2 also possesses non-metabolic activities

such as acting as a protein kinase to phosphorylate various protein targets. PKM2 also participates in many other processes regarding tumor pathology, including cancer metastasis, epithelial-mesenchymal-transition (EMT), gene expression, mitosis, cellular proliferation, apoptosis, DNA damage response, and exosome secretion.

This recombinant PKM antibody was developed with the Single B cell platform. The main process included identification and isolation of single B cells; amplification and cloning of PKM antibody gene; expression, screening, and identification of antibody specificity.  And this PKM antibody has been validated in ELISA, WB, IHC, IF, FC, IP.