

## Anti-PKM Antibody (8A84)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human, Mouse
Conjugation:	Unconjugated
Clone:	8A84
Purification:	Affinity-chromatography

### Applications

1. 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
2. IHC image of TMAH-00985 diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica Bond™ 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.
3. Immunofluorescence staining of Hela Cells with TMAH-00985 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).
4. Overlay histogram showing HepG2 cells stained with TMAH-00985 (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 followed by the antibody ( $1\mu\text{g}/1*10^6$  cells) 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 ( $1\mu\text{g}/1*10^6$  cells) used under the same conditions. Acquisition of >10,000 events was performed.
5. Immunoprecipitating PKM in Hela whole cell lysate
- Lane 1: Rabbit control IgG instead of TMAH-00985 in Hela whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)
  - Lane 2: TMAH-00985(2 $\mu\text{g}$ )+ Hela whole cell lysate(500 $\mu\text{g}$ )
  - Lane 3: Hela whole cell lysate (10 $\mu\text{g}$ )
- Verified Activity:

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Application: ELISA,FCM,IF,IHC,IP,WB

Recommended WB:1:500-1:5000; IHC:1:50-1:200; IF:1:20-1:200; FCM:1:20-1:200; IP:1:200-1:1000.

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### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

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### Antigen Details

Immunogen: A synthetic peptide: Human PKM2

Antigen Species: Human

Gene ID: 5315

Uniprot ID: P14618

Synonyms: THBP1;PKM2;HEL-S-30;TCB;PK3;CTHBP;pyruvate kinase, muscle;OIP3

Biology Area: Epigenetics and Nuclear Signaling, Cancer, Metabolism, Signal transduction

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### Research Background

Glycolytic enzyme that catalyzes the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP. 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. In addition to its role in glycolysis, also regulates transcription. Stimulates POU5F1-mediated transcriptional activation. Promotes in a STAT1-dependent manner, the expression of the immune checkpoint protein CD274 in ARNTL/BMAL1-deficient macrophages. Also acts as a translation regulator for a subset of mRNAs, independently of its pyruvate kinase activity: associates with subpools of endoplasmic reticulum-associated ribosomes, binds directly to the mRNAs translated at the endoplasmic reticulum and promotes translation of these endoplasmic reticulum-destined mRNAs. Plays a general role in caspase independent cell death of tumor cells.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481