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# PKM2 Polyclonal Antibody

Catalog # AP71960

## Product Information

| | |
|---|---|
| **Application** | IF, ICC, WB, IHC-P, E |
| **Primary Accession** | P14618 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 57937 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 5315 |
| **Other Names** | PKM; OIP3; PK2; PK3; PKM2; Pyruvate kinase isozymes M1/M2; Cytosolic thyroid hormone-binding protein; CTHBP; Opa-interacting protein 3; OIP-3; Pyruvate kinase 2/3; Pyruvate kinase muscle isozyme; Thyroid hormone-binding protein 1; THBP1; Tu |
| **Dilution** | IF~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300 ICC~~N/A WB~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300 IHC-P~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300 E~~N/A |
| **Format** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| **Storage Conditions** | -20℃ |

## Protein Information

| | |
|---|---|
| **Name** | PKM |
| **Synonyms** | OIP3 {ECO:0000303\|PubMed:9466265}, PK2, |
| **Function** | Catalyzes the final rate-limiting step of glycolysis by mediating the transfer of a phosphoryl group from phosphoenolpyruvate (PEP) to ADP, generating ATP (PubMed:15996096, PubMed:1854723, PubMed:20847263). 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 (PubMed:15996096, PubMed:1854723, PubMed:20847263). The transition between the 2 forms contributes to the control of glycolysis and is important for tumor cell proliferation and survival (PubMed:15996096, PubMed:1854723, PubMed:20847263). |
| **Cellular Location** | [Isoform M2]: Cytoplasm. Nucleus Note=Translocates to the nucleus in |

response to various signals, such as EGF receptor activation or apoptotic stimuli (PubMed:17308100, PubMed:22056988, PubMed:24120661). Nuclear translocation is promoted by acetylation by EP300 (PubMed:24120661). Deacetylation by SIRT6 promotes its nuclear export in a process dependent of XPO4, thereby suppressing its ability to activate transcription and promote tumorigenesis (PubMed:26787900).

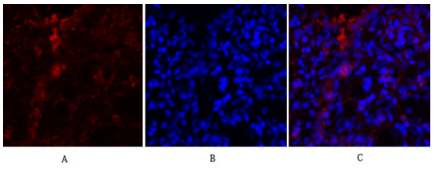
**Tissue Location**

[Isoform M2]: Specifically expressed in proliferating cells, such as embryonic stem cells, embryonic carcinoma cells, as well as cancer cells.

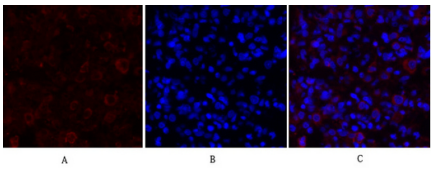
## Background

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 (PubMed:17308100, PubMed:18191611, PubMed:21620138). Promotes in a STAT1-dependent manner, the expression of the immune checkpoint protein CD274 in ARNTL/BMAL1- deficient macrophages (By similarity).

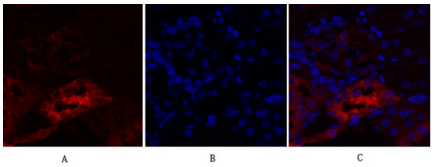
## Images



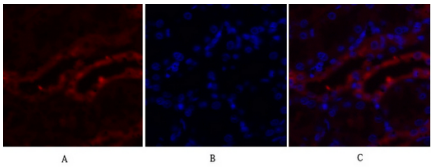

Immunofluorescence analysis of rat-lung tissue. 1,PKM2 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



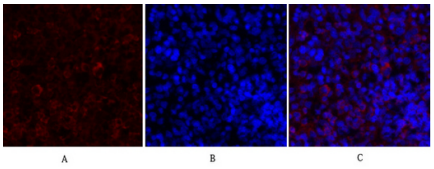

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Immunofluorescence analysis of rat-kidney tissue. 1,PKM2 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

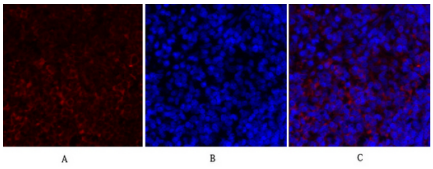



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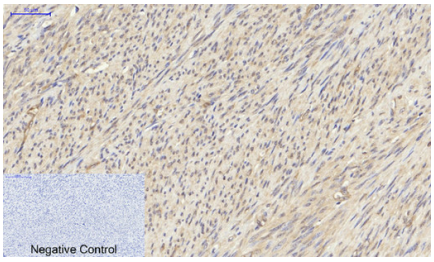



Immunofluorescence analysis of rat-spleen tissue. 1,PKM2 Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI.

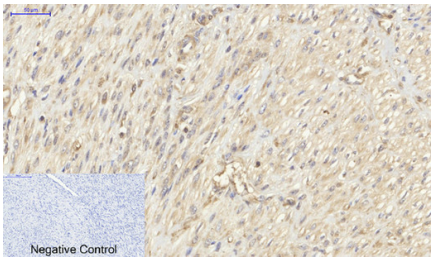
Picture C: merge of A+B



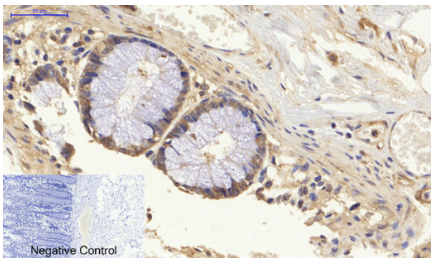

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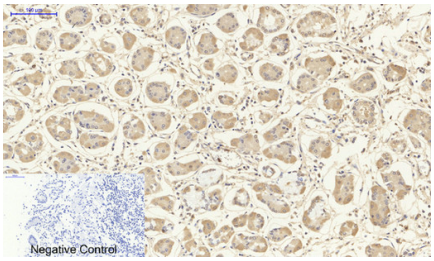

Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,PKM2 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



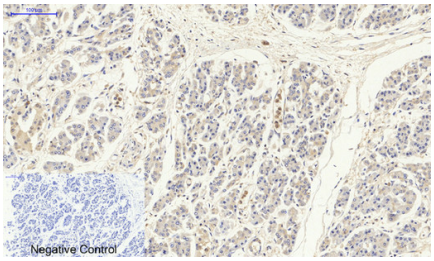

Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1,PKM2 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.




Immunohistochemical analysis of paraffin-embedded Human-colon tissue. 1,PKM2 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

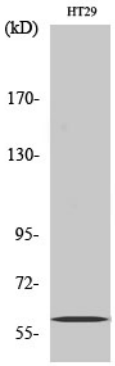


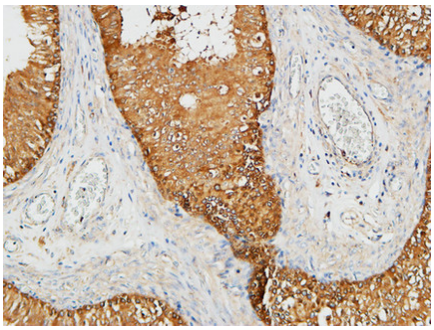

Immunohistochemical analysis of paraffin-embedded Human-stomach tissue. 1,PKM2 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



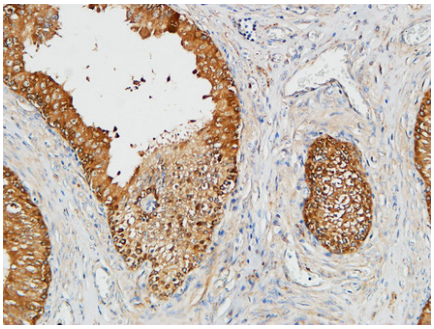

Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1,PKM2 Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

Western Blot analysis of various cells using PKM2 Polyclonal Antibody diluted at 1 : 2000

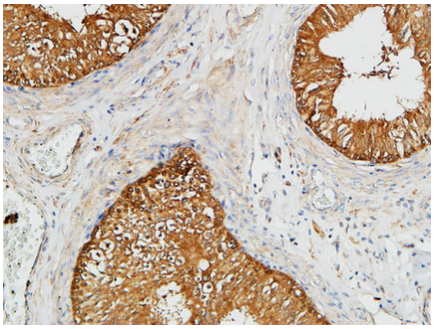


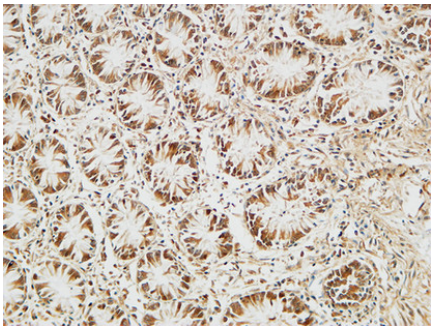
Immunohistochemical analysis of paraffin-embedded Human testis. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



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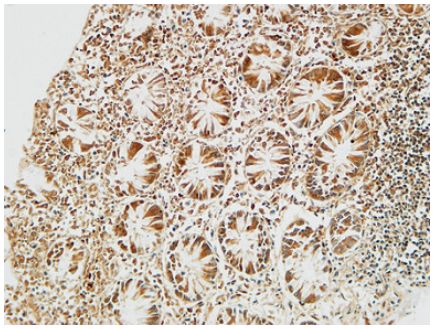


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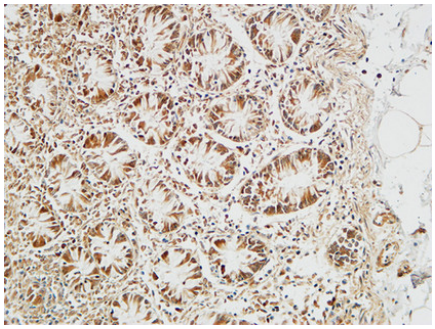


Immunohistochemical analysis of paraffin-embedded Human colon. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).

Immunohistochemical analysis of paraffin-embedded Human colon. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary



antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human colon. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).

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