Data Sheet (Cat.No.TMAB-00743)

GAPDH Loading Control Antibody (1K734)

Product Details

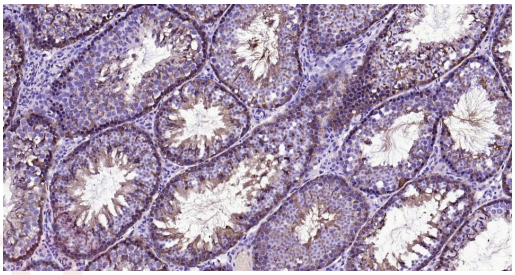
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat (predicted:Zebrafish,Monkey)
Molecular Weight:	Theoretical: 38 kDa. Actual: 38 kDa.
Clone:	1K734
Purification:	Protein A purified

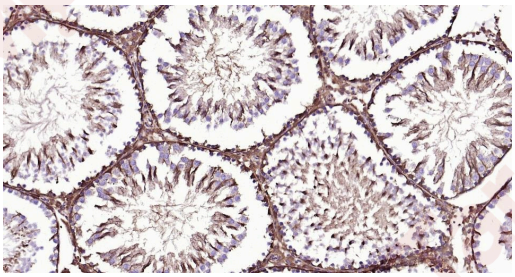
Applications

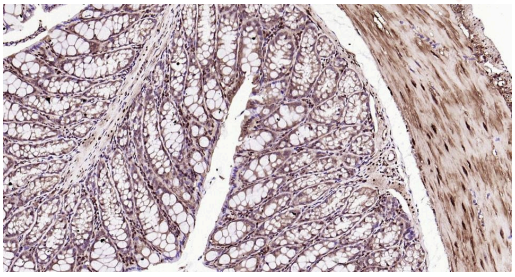
Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded Mouse Testicles; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 2. Paraformaldehyde-fixed, paraffin embedded Rat Testicles; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 3. Paraformaldehyde-fixed, paraffin embedded Mouse Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 4. Paraformaldehyde-fixed, paraffin embedded Rat Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 5. Paraformaldehyde-fixed, paraffin embedded Human Colon; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 6. Paraformaldehyde-fixed, paraffin embedded Mouse Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 7. Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 8. Paraformaldehyde-fixed, paraffin embedded Mouse Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining. 9. Paraformaldehyde-fixed, paraffin embedded Rat Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.

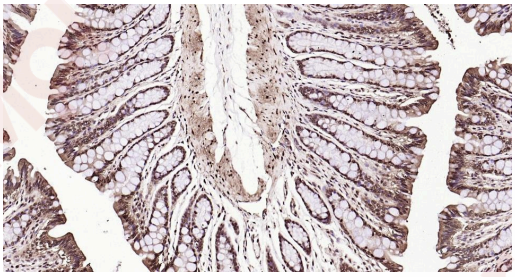
10. Paraformaldehyde-fixed, paraffin embedded Human Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
11. Paraformaldehyde-fixed, paraffin embedded Mouse Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
12. Paraformaldehyde-fixed, paraffin embedded Rat Kidney; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
13. Paraformaldehyde-fixed, paraffin embedded Rat Pancreas; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
14. Paraformaldehyde-fixed, paraffin embedded Human Pancreas; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
15. Paraformaldehyde-fixed, paraffin embedded Human Colon Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
16. Paraformaldehyde-fixed, paraffin embedded Human Breast Cancer; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
17. Paraformaldehyde-fixed, paraffin embedded Human Liver; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with GAPDH Monoclonal Antibody, Unconjugated (TMAB-00743) at 1:250 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit) and DAB staining.
18. 25 µg total protein per Lane of various lysates probed with GAPDH monoclonal antibody, unconjugated (TMAB-00743) at 1:5000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at RT for 60 min.
19. The Hela (H) cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C,the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at room temperature). Primary Antibody (green): Rabbit Anti-GAPDH antibody (TMAB-00743): 1 µg/10^6 cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-BF488: 1 µg/test. Blank control (black): PBS.
20. The L929 (M) cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C,the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at room temperature). Primary Antibody (green): Rabbit Anti-GAPDH antibody (TMAB-00743): 1 µg/10^6 cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-BF488: 1 µg/test. Blank control (black): PBS.
21. 4% Paraformaldehyde-fixed Hela (H) cell; Triton X-100 at RT for 20 min; Antibody incubation with (GAPDH) monoclonal Antibody, unconjugated (TMAB-00743) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nucleus. PBS instead of the primary antibody was used as the blank control.
22. 4% Paraformaldehyde-fixed L-929 (M) cell; Triton X-100 at RT for 20 min; Antibody

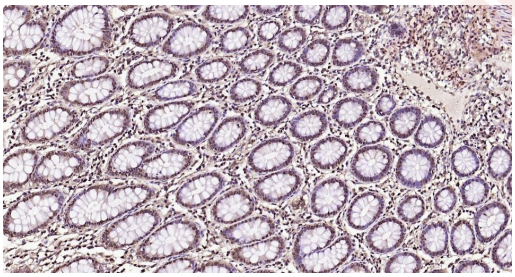
incubation with (GAPDH) monoclonal Antibody, unconjugated (TMAB-00743) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nucleus. PBS instead of the primary antibody was used as the blank control.

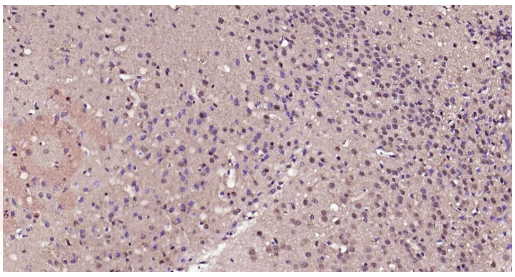


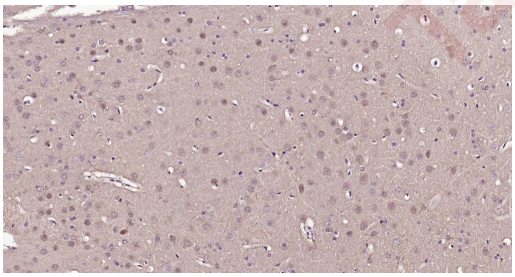


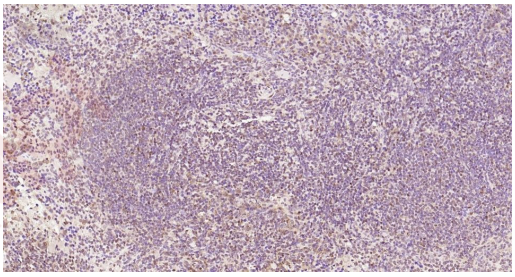


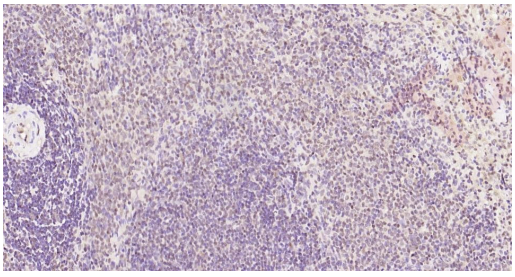


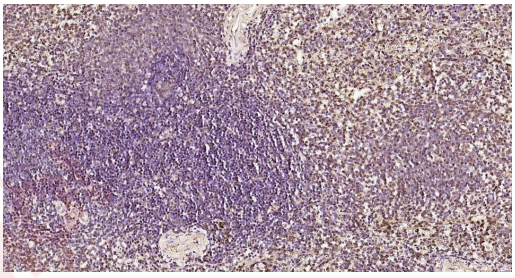


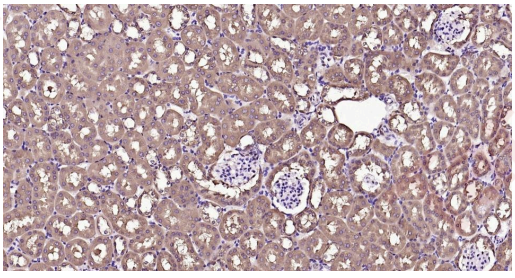


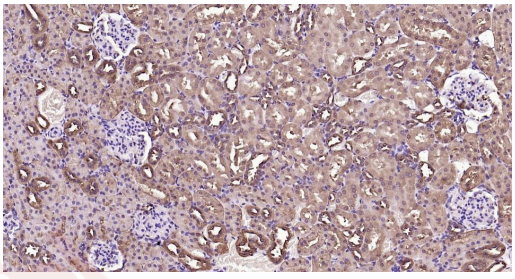


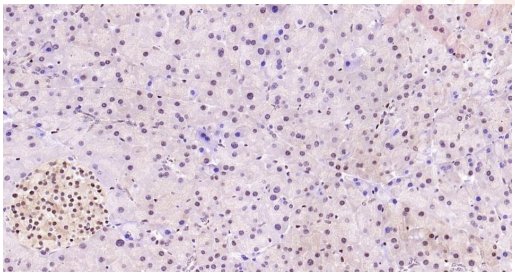


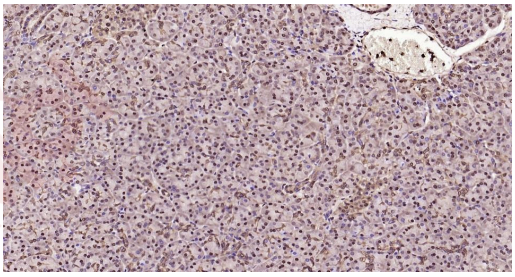


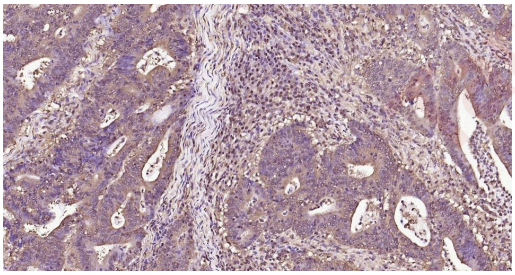


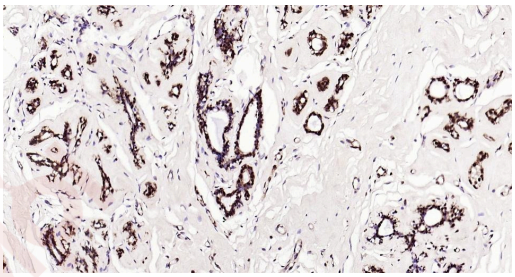


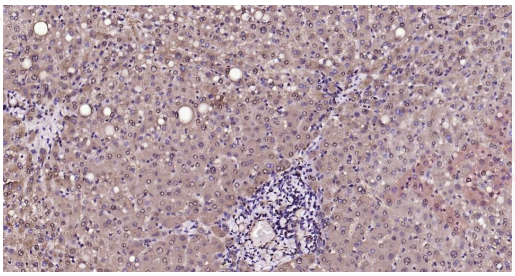


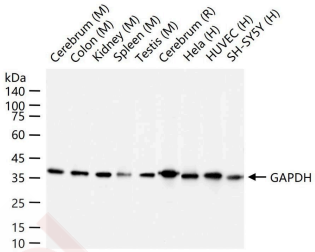


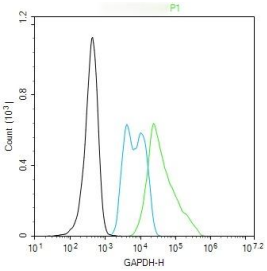


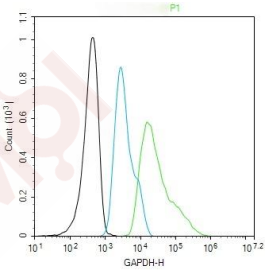


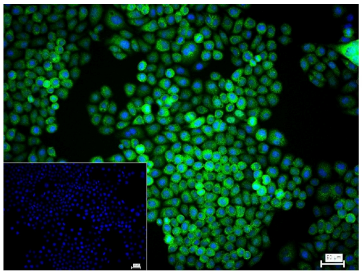


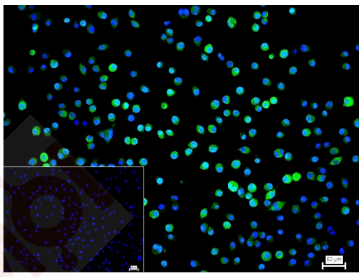



Cerebrum (M)
Colon (M)
Kidney (M)
Spleen (M)
Testis (M)
Cerebrum (R)
Hela (H)
HUVEC (H)
SH-SY5Y (H)
kDa
140
100
75
60
45
35
25
15
10
GAPDH









Application:	FCM,ICC/IF,IF,IHC-Fr,IHC-P,WB
Recommended	WB=1:50000-500000,IHC-P=1:200-1000,IHC-F=1:200-1000,ICC/IF=1:100-500,IF=1:200-1000, Flow-Cyt=1:100-200

Properties

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

Antigen Details

Immunogen:	A synthesized peptide: human GAPDH
Antigen Species:	Human
Gene ID:	2597
Uniprot ID:	P04406
Synonyms:	GAPD;G3PD;HEL-S-162eP;glyceraldehyde-3-phosphate dehydrogenase
Biology Area:	Energy Metabolism,Huntington's disease,Alzheimer's disease,Neurodegenerative disease, Cancer,Energy Metabolism,Carbohydrate metabolism,GAPDH,Metabolism of carbohydrates

Research Background

Glyceraldehyde 3 phosphate dehydrogenase (GAPDH) is well known as one of the key enzymes involved in glycolysis. As well as functioning as a glycolytic enzyme in cytoplasm, recent evidence suggests that mammalian GAPDH is also involved in a great number of intracellular proceses such as membrane fusion, microtubule bundling, phosphotransferase activity, nuclear RNA export, DNA replication, and DNA repair. During the last decade a lot of data appeared concerning the role of GAPDH in different pathologies including prostate cancer progression, programmed neuronal cell death, age related neuronal diseases, such as Alzheimer's and Huntington's disease. GAPDH is expressed in all cells. It is constitutively expressed in almost all tissues at high levels. There are however some physiological factors such as hypoxia and diabetes that increase GAPDH expression in certain cell types. GAPDH molecule is composed of four 36kDa subunits.