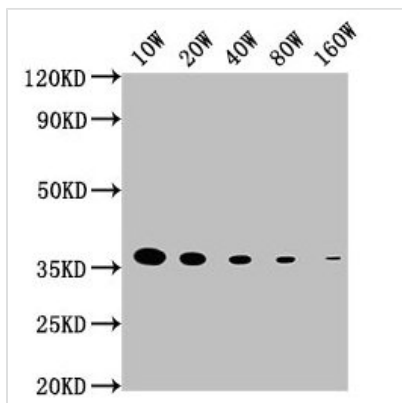




# GAPDH Monoclonal Antibody

<b>Product Code</b>	CSB-MA000071M0m
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P04406
<b>Immunogen</b>	Recombinant Human GAPDH protein (3-335AA)
<b>Raised In</b>	Mouse
<b>Species Reactivity</b>	Human, Rat, Rabbit
<b>Tested Applications</b>	ELISA, WB, IHC, IP, IF, FC; Recommended dilution: WB:1:5000-1:1600000, IHC:1:50-1:500, IF:1:50-1:200, IP:1µl-2µl, FC:1:100-1:300
<b>Relevance</b>	<p>Glyceraldehyde 3-phosphate dehydrogenase (GAPDH or G3PDH) is an enzyme of 37kDa that is considered as a cellular enzyme involved in glycolysis. Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) is a pleiotropic enzyme that is overexpressed in apoptosis and in several human chronic pathologies. Its role as a mediator for cell death has also been highlighted. At the molecular level, sequential steps lead to nuclear translocation of GAPDH during cell death as follows: first, a catalytic cysteine in GAPDH (C150 in rat GAPDH) is S-nitrosylated by nitric oxide (NO) that is generated from inducible nitric oxide synthase (iNOS) and/or neuronal NOS (nNOS); second, the modified GAPDH becomes capable of binding with Siah1, an E3 ubiquitin ligase, and stabilizes it; third, the GAPDH-Siah protein complex translocates to the nucleus, dependent on Siah1's nuclear localization signal, and degrades Siah1's substrates in the nucleus, which results in cytotoxicity. A recent report suggests that GAPDH may be genetically associated with late-onset of Alzheimer's disease.-deprenyl, which has originally been used as a monoamine oxidase inhibitor for Parkinson's disease, binds to GAPDH and displays neuroprotective actions.</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH 7.4
<b>Purification Method</b>	>95%, Protein G purified
<b>Isotype</b>	IgG1
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Tag Control Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Target Names</b>	GAPDH
<b>Clone No.</b>	14C2F11
<b>Image</b>	



**Western Blot**

Positive WB detected in: 15µg hela whole cell lysate

GAPDH antibody at 1:100000, 1:200000, 1:400000, 1:800000, 1:1600000

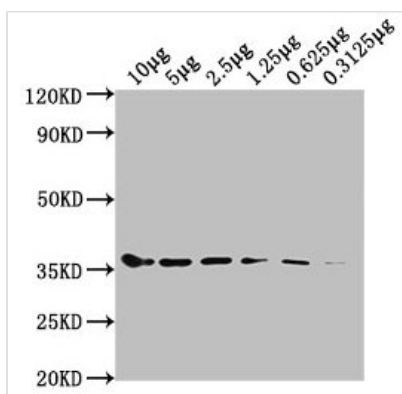
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

Predicted band size: 36 KDa

Observed band size: 36 KDa

Exposure time: 5min



**Western Blot**

Positive WB detected in: HeLa whole cell lysate at 10µg, 5µg, 2.5µg, 1.25µg, 0.625µg, 0.3125µg

All lanes: GAPDH antibody at 1:5000

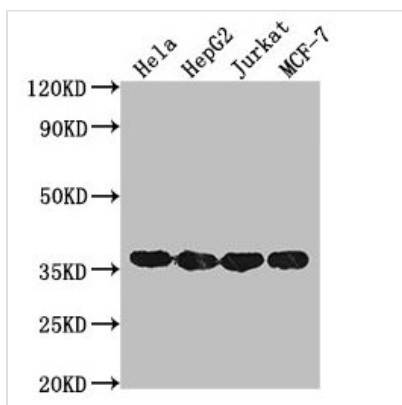
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

Predicted band size: 36 KDa

Observed band size: 36 KDa

Exposure time: 5min



**Western Blot**

Positive WB detected in: HeLa whole cell lysate, HepG2 whole cell lysate, Jurkat whole cell lysate, MCF-7 whole cell lysate

All lanes: GAPDH antibody at 1:2000

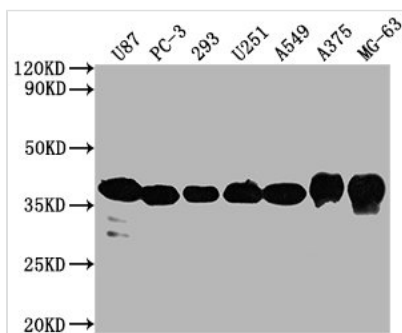
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

Predicted band size: 36 KDa

Observed band size: 36 KDa

Exposure time: 30s



**Western Blot**

Positive WB detected in: U87 whole cell lysate, PC3 whole cell lysate, 293 whole cell lysate, U251 whole cell lysate, A549 whole cell lysate, A375 whole cell lysate, MG-63 whole cell lysate

All lanes GAPDH antibody at 1:5000

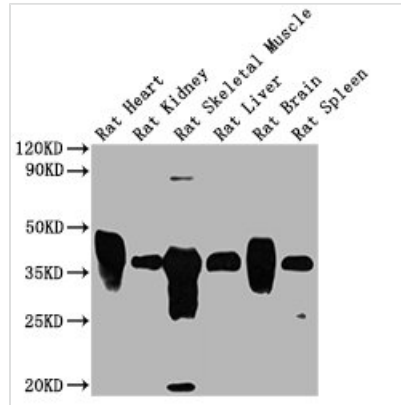
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

Predicted band size: 36 KDa

Observed band size: 36 KDa

Exposure time: 30s



**Western Blot**

Positive WB detected in: Rat heart tissue, Rat kidney tissue, Rat skeletal muscle tissue, Rat liver tissue, Rat brain tissue tissue, Rat spleen tissue

All lanes GAPDH antibody at 1:1000

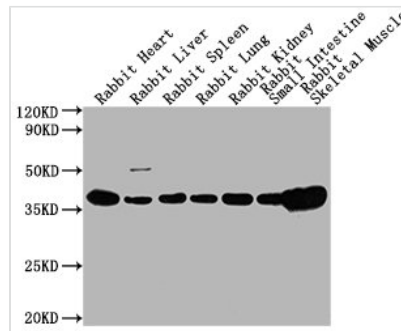
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

Predicted band size: 36 KDa

Observed band size: 36 KDa

Exposure time: 1min



**Western Blot**

Positive WB detected in: Rabbit heart tissue, Rabbit liver tissue, Rabbit spleen tissue, Rabbit lung tissue, Rabbit kidney tissue, Rabbit small intestine tissue, Rabbit skeletal muscle tissue

All lanes GAPDH antibody at 1:5000

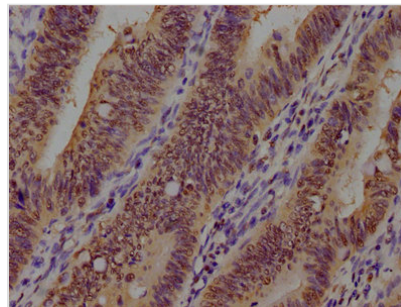
Secondary

Goat polyclonal to mouse IgG at 1/50000 dilution

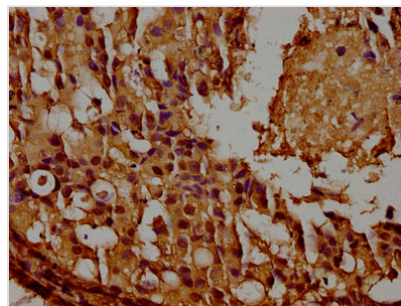
Predicted band size: 36 KDa

Observed band size: 36 KDa

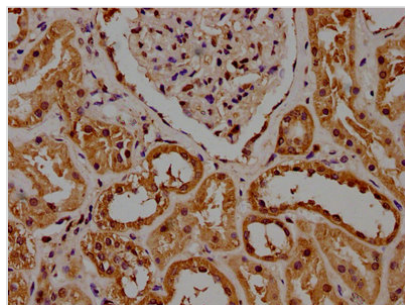
Exposure time: 5min



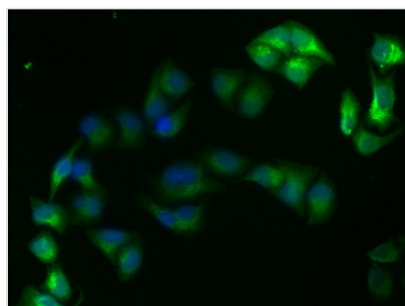
IHC image of CSB-MA000071M0m diluted at 1:100 and staining in paraffin-embedded human colon cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



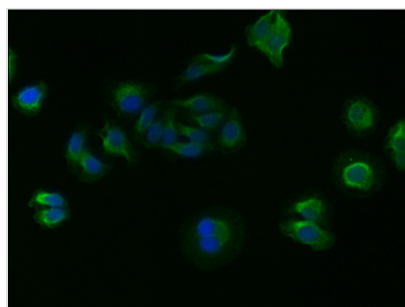
IHC image of CSB-MA000071M0m diluted at 1:100 and staining in paraffin-embedded human breast cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



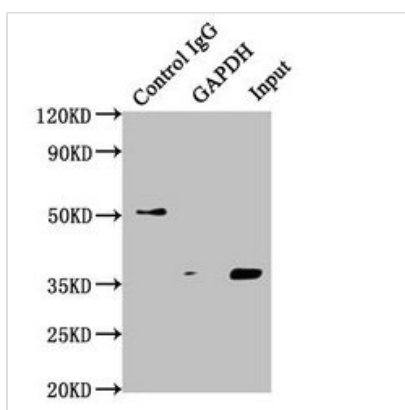
IHC image of CSB-MA000071M0m diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



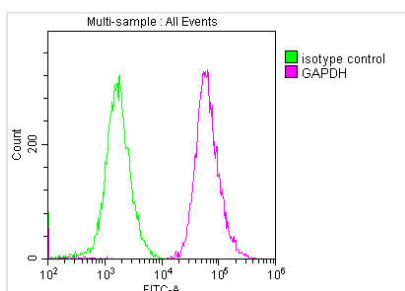
Immunofluorescence staining of HeLa cells with CSB-MA000071M0m at 1:220, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescence staining of HepG2 cells with CSB-MA000071M0m at 1:220, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-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-Mouse IgG(H+L).



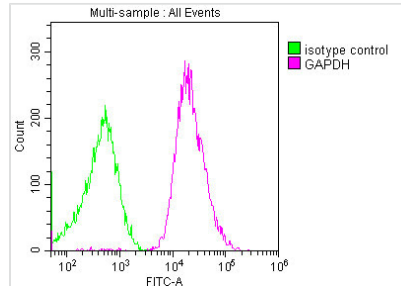
Immunoprecipitating GAPDH in HeLa whole cell lysate  
 Lane 1: Mouse control IgG instead of CSB-MA000071M0m in HeLa whole cell lysate.  
 Lane 2: CSB-MA000071M0m (1μl) + HeLa whole cell lysate (500μg)  
 Lane 3: HeLa whole cell lysate (20μg)  
 For western blotting, the blot was detected with CSB-MA000071M0m at 1:5000, and a HRP-conjugated Protein G antibody was used as the secondary antibody at 1:2000



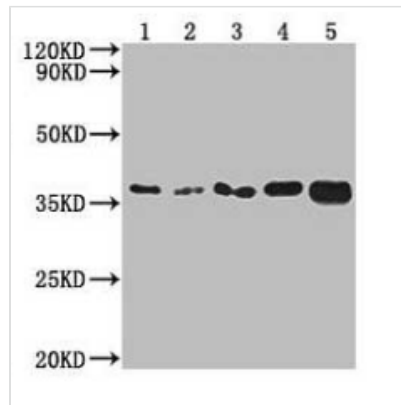
Overlay histogram showing HeLa cells stained with CSB-MA000071M0m (red line). The cells were fixed with 70% Ethylalcohol (18h) and then permeabilized with 0.3% Triton X-100 for 2 min. The cells were then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1:200/1\*10<sup>6</sup> cells) for 1 h at 4°C. The secondary antibody used was FITC goat anti-mouse



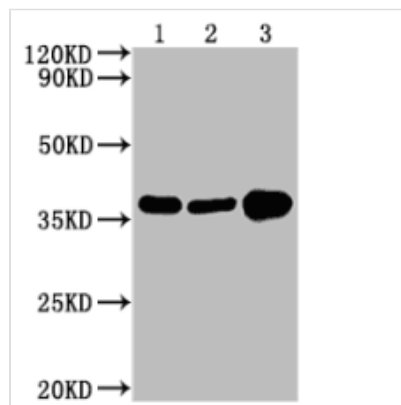
IgG(H+L) at 1/100 dilution for 30min at 4°C. Isotype control antibody (green line) was mouse IgG1 (1:200/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.



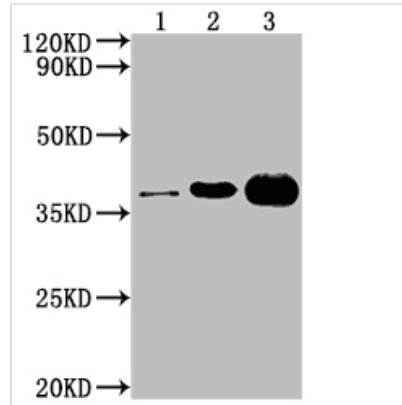
Overlay histogram showing Jurkat cells stained with CSB-MA000071M0m (red line). The cells were fixed with 70% Ethylalcohol (18h) and then permeabilized with 0.3% Triton X-100 for 2 min. The cells were then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1:200/1\*10<sup>6</sup>cells) for 1 h at 4°C. The secondary antibody used was FITC goat anti-mouse IgG(H+L) at 1/100 dilution for 30min at 4°C. Isotype control antibody (green line) was mouse IgG1 (1:200/1\*10<sup>6</sup>cells) used under the same conditions. Acquisition of >10,000 events was performed.



1. Exosomes extracted from HEPG2 cells
2. Exosomes extracted from PC-3 cells
3. Exosomes extracted from HeLa cells
4. Exosomes extracted from U87 cells
5. HeLa cell Lysate



1. Exosomes extracted from MG63 cells
2. Exosomes extracted from Ntera-2 cells
3. MG63 cell Lysate



1. Exosomes extracted from Raji cells
2. Exosomes extracted from U251 cells
3. Raji cell Lysate

**Usage**

For Research Use Only. Not for use in diagnostic or therapeutic procedures.