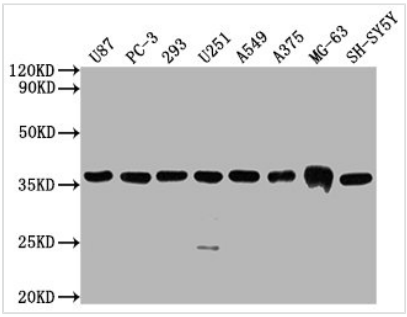
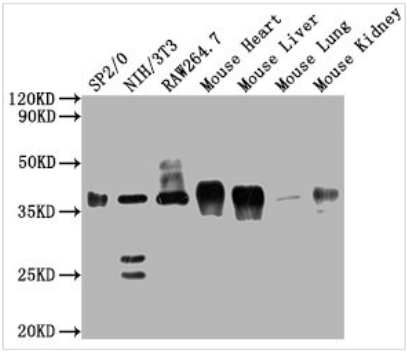
GAPDH Monoclonal Antibody

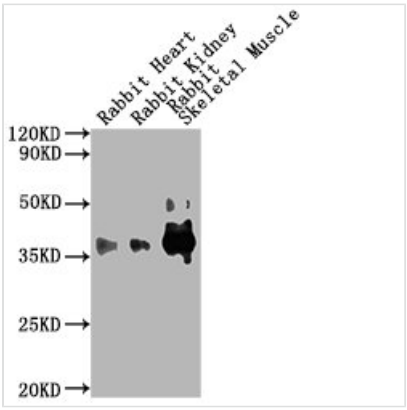
Product Code	CSB-MA000071M1m
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04406
Immunogen	Recombinant Human GAPDH protein (2-335AA)
Raised In	Mouse
Species Reactivity	Human, Mouse, Rabbit
Tested Applications	ELISA, WB, IHC, IP, IF; Recommended dilution: WB: 1:5000-1:80000, IHC: 1:200-1:500, IF: 1:50-1:100, IP: 2μl-8μl
Relevance	Glyceraldehyde 3-phosphate dehydrogenase (GAPDH or G3PDH) is an enzyme of 37kDa that is consisdered 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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Purification Method	>95%, Protein G purified
Isotype	IgG1
Clonality	Monoclonal Antibody
Alias	GAPDH; G3PD; GAPD; MGC88685
Product Type	Monoclonal Antibody
Immunogen Species	Human
Target Names	GAPDH
Clone No.	10B4E3
Image	



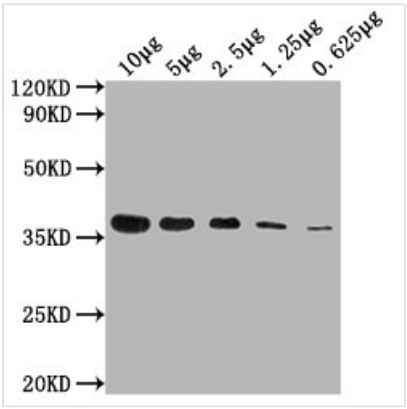
Western Blot
Positive WB detected in: U87 whole cell lysate, PC-3 whole cell lysate, 293 whole cell lysate, U251 whole cell lysate, A549 whole cell lysate, A375 whole cell lysate, MG-63 whole cell lysate, SH-SY5Y whole cell lysate,
All lanes GAPDH antibody at 1:5000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 36 KDa
Observed band size: 36 KDa
Exposure time: 10s



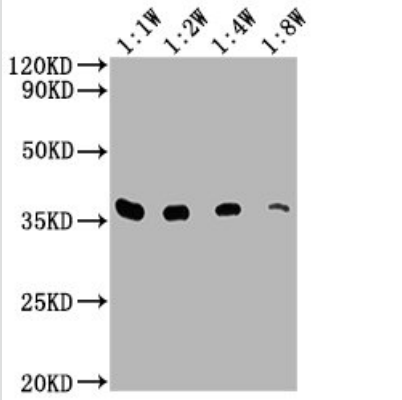
Western Blot
Positive WB detected in: SP2/0 whole cell lysate, NIH/3T3 whole cell lysate, Raw264.7 whole cell lysate, Mouse Heart tissue, Mouse lung tissue,Mouse kidney tissue
All lanes GAPDH antibody at 1:5000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 36 KDa
Observed band size: 36 KDa
Exposure time: 10s



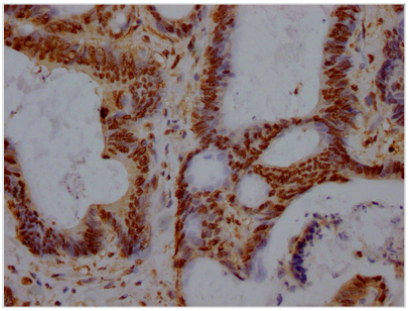
Western Blot
Positive WB detected in: Rabbit heart tissue, Rabbit kidney tissue, Rabbit muscle tissue
All lanes GAPDH antibody at 1:5000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 36 KDa
Observed band size: 36 KDa
Exposure time: 10s



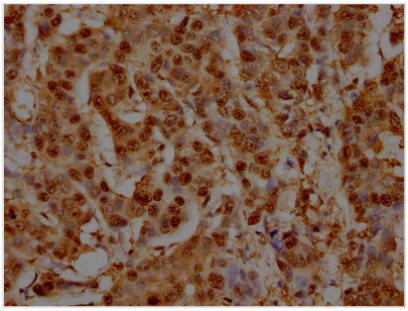
Western Blot
Positive WB detected in: Hela whole cell lysate at 10μg, 5μg, 2.5μg, 1.25μg, 0.625μg All lanes:GAPDH antibody at 1:5000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 36 KDa
Observed band size: 36 KDa
Exposure time: 10s



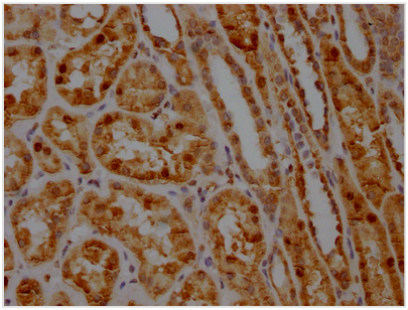
Western Blot
Positive WB detected in: 15μg hela whole cell lysate GAPDH antibody at 1:10000, 1:20000, 1:40000, 1:80000
Secondary
Goat polyclonal to mouse IgG at 1/50000 dilution
Predicted band size: 36 KDa
Observed band size: 36 KDa
Exposure time: 10s



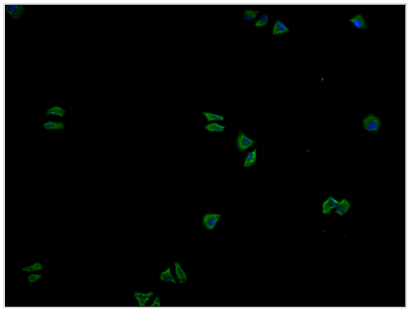
IHC image of CSB-MA000071M1m diluted at 1:500 and staining in paraffin-embedded human colon cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



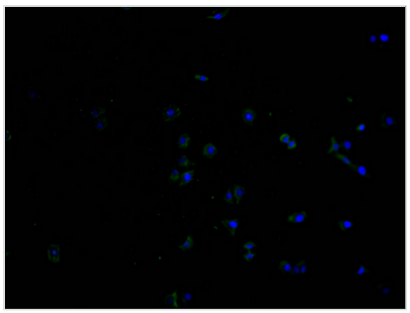
IHC image of CSB-MA000071M1m diluted at 1:500 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



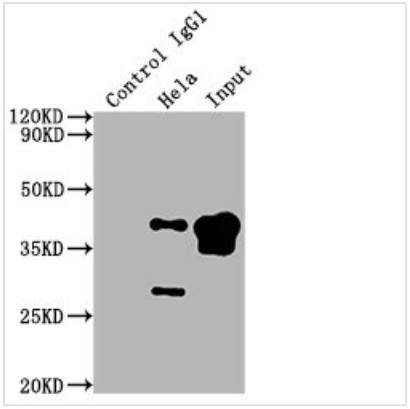
IHC image of CSB-MA000071M1m diluted at 1:500 and staining in paraffin-embedded human kidney tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela cells with(CSB-MA000071M1m)at 1:50, 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-MA000071M1m)at 1:50, 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-MA000071M1m in Hela whole cell lysate. Lane 2: CSB-MA000071M1m (5µl) + Hela whole cell lysate (500µg)
Lane 3: Hela whole cell lysate (10µg)
For western blotting, the blot was detected with CSB-MA000071M1m at 1:5000, and a HRP-conjugated Protein G antibody was used as the secondary antibody at 1:2000

Usage

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