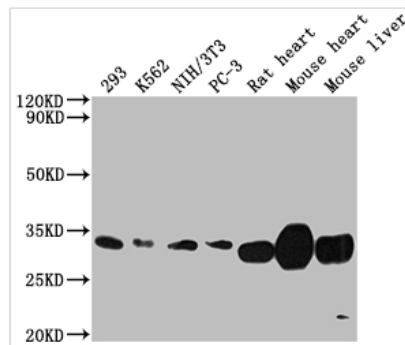




SDHB Recombinant Monoclonal Antibody

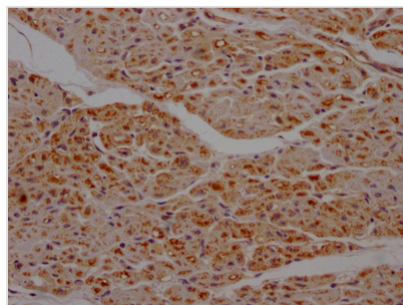
| | |
|----------------------------|---|
| Product Code | CSB-RA987662A0HU |
| Storage | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| Uniprot No. | P21912 |
| Immunogen | A synthesized peptide derived from human SDHB |
| Species Reactivity | Human, Mouse, Rat |
| Tested Applications | ELISA, WB, IHC, FC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, FC:1:20-1:200 |
| Relevance | Iron-sulfur protein (IP) subunit of succinate dehydrogenase (SDH) that is involved in complex II of the mitochondrial electron transport chain and is responsible for transferring electrons from succinate to ubiquinone (coenzyme Q). |
| Form | Liquid |
| Conjugate | Non-conjugated |
| Storage Buffer | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Purification Method | Affinity-chromatography |
| Isotype | Rabbit IgG |
| Clonality | Monoclonal |
| Product Type | Recombinant Antibody |
| Immunogen Species | Homo sapiens (Human) |
| Research Area | Cancer; Cell biology; Metabolism; Signal transduction |
| Gene Names | SDHB |
| Clone No. | 7D12 |

Image

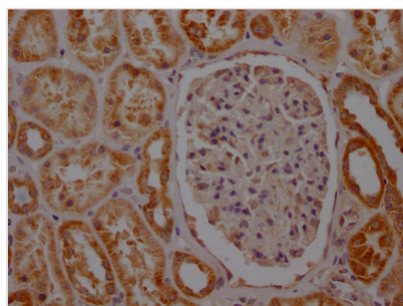


Western Blot

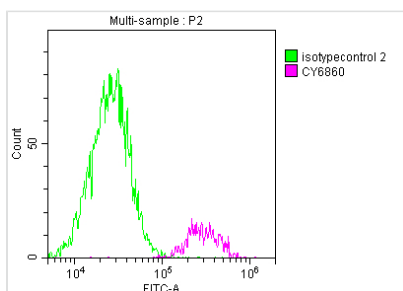
Positive WB detected in: 293 whole cell lysate, K562 whole cell lysate, NIH/3T3 whole cell lysate, PC-3 whole cell lysate, Rat heart tissue, Mouse heart tissue, Mouse liver tissue
 All lanes: SDHB antibody at 1:2000
 Secondary
 Goat polyclonal to rabbit IgG at 1/50000 dilution
 Predicted band size: 32 kDa
 Observed band size: 32 kDa



IHC image of CSB-RA987662A0HU diluted at 1:100 and staining in paraffin-embedded human heart 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA987662A0HU diluted at 1:100 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Overlay histogram showing 293 cells stained with CSB-RA987662A0HU (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 (1μg/1*10⁶ cells) for 1 h at 4?. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG (1μg/1*10⁶ cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The SDHB recombinant monoclonal antibody is produced through recombinant DNA technology and is ideal for detecting the SDHB protein from human, mouse, and rat samples in four applications including ELISA, WB, IHC, and FC. To produce this antibody, the cDNA of SDHB antibody-producing hybridomas is sequenced and the gene coding for the SDHB monoclonal antibody is synthesized. The hybridomas are formed by fusing myeloma cells B cells isolated from an animal that was immunized with a synthesized peptide derived from human SDHB. After cloning the synthesized gene into a vector, the recombinant vector is transfected into cells for cultivation. Finally, the resulting SDHB recombinant monoclonal antibody is purified from the cell culture supernatant through affinity chromatography.

The SDHB protein is a subunit of the succinate dehydrogenase (SDH) complex, which is an enzyme complex located in the inner mitochondrial membrane and plays a crucial role in the mitochondrial electron transport chain and the tricarboxylic acid (TCA) cycle. Specifically, SDHB acts as an anchor for the SDH complex and is involved in the electron transfer from succinate to ubiquinone



during oxidative phosphorylation, leading to the generation of ATP. Mutations in the SDHB gene have been associated with several hereditary cancers, including paragangliomas, pheochromocytomas, and gastrointestinal stromal tumors.