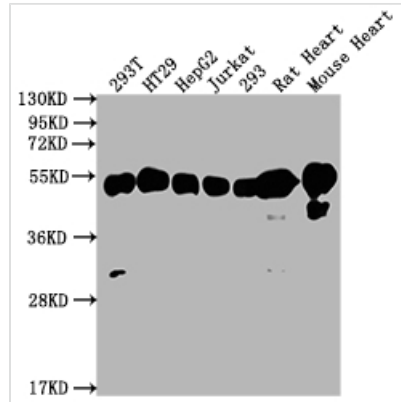




ATP5B Antibody

| | |
|----------------------------|---|
| Product Code | CSB-RA216446A0HU |
| Storage | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |
| Uniprot No. | P06576 |
| Immunogen | A synthesized peptide derived from human ATPB |
| Species Reactivity | Human, Mouse, Rat |
| Tested Applications | ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200 |
| Relevance | Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation. Subunits alpha and beta form the catalytic core in F(1). Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits. |
| 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; Tags & Cell Markers; Metabolism; Signal transduction |
| Gene Names | ATP5B |
| Accession NO. | 5F10 |
| Image | |


Western Blot

Positive WB detected in: 293T whole cell lysate, HT29 whole cell lysate, HepG2 whole cell lysate, Jurkat whole cell lysate, 293 whole cell lysate, Rat Heart tissue, Mouse Heart tissue

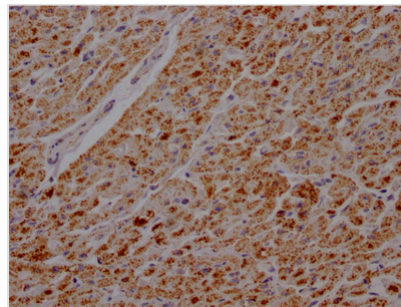
All lanes: ATP5F1B antibody at 1:2000

Secondary

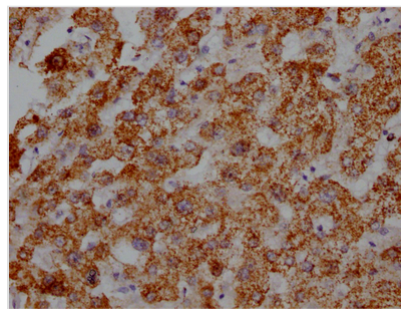
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 57 kDa

Observed band size: 57 kDa



IHC image of CSB-RA216446A0HU 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°C 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-RA216446A0HU diluted at 1:100 and staining in paraffin-embedded human liver 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 IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

ATP5B is a rate-limiting enzyme that produces cellular ATP by oxidative phosphorylation and is only found on the inner mitochondrial membrane. ATP5B can augment the elongation of mitochondria. It has been shown that ATP5B is required for tumor growth and metastasis. ATP5B is a predictive factor in a variety of cancers and could be a potential therapeutic target. ATP5B expression has been linked to poor overall survival and metastasis-free survival in prostate cancer. After attaching to an RNA aptamer, ATP5B possesses a specific tumor cell killing effect. In HER2-positive breast cancer, ATP5B is highly expressed.

The generation of the recombinant ATP5B antibody includes obtaining the ATP5B antibody gene, cloning the gene into a plasma vector, introducing the recombinant vector into mammalian cell lines, and achieving expression of adequate amounts of functional antibody. The recombinant ATP5B antibody was purified using A synthesized peptide derived from human ATPB. It is reactive with the ATP5B protein from Human, Mouse, Rat and is suitable for the



use in the ELISA, WB, IHC.