

## Allgemeine Informationen

<b>Katalog-Nr.:</b> 82288-1-RR	<b>GenBank-Zugangsnummer:</b> BC064562	<b>Reinigungsmethode:</b> Protein-A-Reinigung
<b>Größe:</b> 100ul, Konzentration: 1000 µg/ml von 498 Nanodrop;	<b>GeneID (NCBI):</b> von 498	<b>CloneNo.:</b> 4O12
<b>Wirt:</b> Kaninchen	<b>Vollständiger Name:</b> ATP synthase, H <sup>+</sup> transporting, mitochondrial F1 complex, alpha subunit 1, cardiac muscle	<b>Empfohlene Verdünnungen:</b> WB 1:5000-1:50000 IHC 1:500-1:2000 IF 1:1100-1:4400
<b>Isotyp:</b> IgG	<b>Berechnete Masse:</b> 60 kDa	
<b>Immunogen Katalognummer:</b> AG6385	<b>Beobachtete Masse:</b> 50-55 kDa	

## Anwendungen

<b>Geprüfte Anwendungen:</b> IF, IHC, WB, ELISA	<b>Positivkontrollen:</b>
<b>Getestete Reaktivität:</b> Human, Maus, Ratte	<b>WB:</b> HEK-293-Zellen, HeLa-Zellen, HepG2-Zellen, Jurkat-Zellen, MCF-7-Zellen, NIH/3T3-Zellen
<b>Hinweis-IHC: Antigendemaskierung mit TE-Puffer pH 9,0 empfohlen. (*) Wahlweise kann die Antigendemaskierung auch mit Citratpuffer pH 6,0 erfolgen.</b>	<b>IHC:</b> Maushirngewebe, humanes Lebergewebe
	<b>IF:</b> HepG2-Zellen, HeLa-Zellen

## Hintergrundinformationen

The ATP5A1 gene encodes the  $\alpha$  subunit of mitochondrial ATP synthase which produces ATP from ADP in the presence of a proton gradient across the membrane. The mitochondrial ATP synthase, also known as Complex V or F1FO ATP synthase, is a multi-subunit enzyme complex consisting of two functional domains, the F1-containing the catalytic core and the Fo-containing the membrane proton channel. FO domain has 10 subunits: a, b, c, d, e, f, g, OSCP, A6L, and F6. F1 is composed of subunits  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ , and a loosely attached inhibitor protein IF1. Recently defect in ATP5A1 has been linked to the fatal neonatal mitochondrial encephalopathy. ATP5A1 is localized in the mitochondria and anti-ATP5A1 can be used as the loading control for mitochondrial or Complex V proteins. This antibody recognizes the endogenous ATP5A1 protein in lysates from various cell lines and tissues. The predicted MW of ATP5A1 is 60 kDa, while it undergoes the transit peptide cleavage to become a mature form around 50-55 kDa. Several isoforms of ATP5A1 exist due to the alternative splicing.

## Lagerung

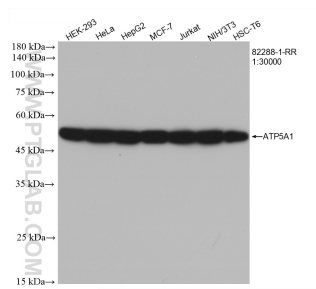
**Lagerungsbedingungen:**  
Bei -20°C lagern. Nach dem Versand ein Jahr lang stabil  
**Lagerungspuffer:**  
PBS mit 0.02% Natriumazid und 50% Glycerin pH 7.3.  
**Aliquotieren ist nicht notwendig bei -20°C Lagerung**

\*\*\* 20ul-Größen enthalten 0.1% BSA

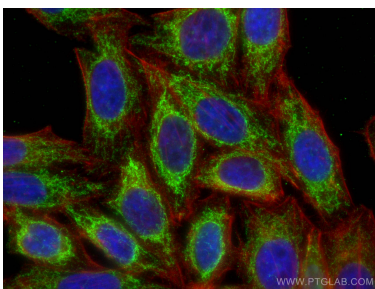
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

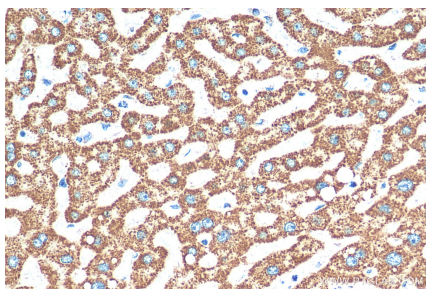
Ausgewählte Validierungsdaten



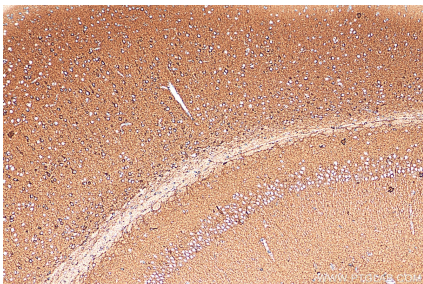
Various lysates were subjected to SDS PAGE followed by western blot with 82288-1-RR (ATP5A1 antibody) at dilution of 1:30000 incubated at room temperature for 1.5 hours.



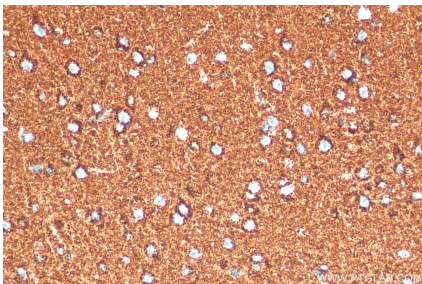
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using ATP5A1 antibody (82288-1-RR, Clone: 4O12 ) at dilution of 1:2000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



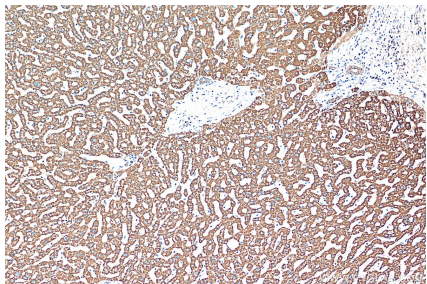
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 82288-1-RR (ATP5A1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 82288-1-RR (ATP5A1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 82288-1-RR (ATP5A1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 82288-1-RR (ATP5A1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).