


### Anti-SERCA2 ATPase antibody [EPR9393] ab137020

リコンビナント RabMAb

★★★★☆ **3 Abreviews** **8 References** 画像数 6

#### 製品の概要

製品名	Anti-SERCA2 ATPase antibody [EPR9393]
製品の詳細	Rabbit monoclonal [EPR9393] to SERCA2 ATPase
由来種	Rabbit
アプリケーション	<b>適用あり:</b> Flow Cyt (Intra), WB, IHC-P, ICC/IF <b>適用なし:</b> IP
種交差性	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Mouse, Rat 
免疫原	Synthetic peptide within Human SERCA2 ATPase aa 1000-1100 (C terminal). The exact sequence is proprietary.
ポジティブ・コントロール	A673, HeLa, and HepG2 whole cell lysate ( <b>ab7900</b> ); Human skin and hepatocellular carcinoma tissues; HepG2 cells
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <b>see here</b> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <b>RabMAb<sup>®</sup> patents</b> .

#### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at -20°C.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
精製度	Protein A purified
ポリ/モノ	モノクローナル

クローン名                   EPR9393

アイソタイプ                IgG

## アプリケーション

**The Abpromise guarantee**       **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab137020の使用に適用されず  
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/10 - 1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★☆ (3)	1/1000 - 1/10000. Predicted molecular weight: 115 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/250 - 1/500.

追加情報                    Is unsuitable for IP.

## ターゲット情報

**機能**                         This magnesium-dependent enzyme catalyzes the hydrolysis of ATP coupled with the translocation of calcium from the cytosol to the sarcoplasmic reticulum lumen. Isoform 2 is involved in the regulation of the contraction/relaxation cycle.

**組織特異性**                Isoform 1 is widely expressed in smooth muscle and nonmuscle tissues such as in adult skin epidermis, with highest expression in liver, pancreas and lung, and intermediate expression in brain, kidney and placenta. Also expressed at lower levels in heart and skeletal muscle. Isoforms 2 and 3 are highly expressed in the heart and slow twitch skeletal muscle. Expression of isoform 3 is predominantly restricted to cardiomyocytes and in close proximity to the sarcolemma. Both isoforms are mildly expressed in lung, kidney, liver, pancreas and placenta. Expression of isoform 3 is amplified during monocytic differentiation and also observed in the fetal heart.

**関連疾患**                    Defects in ATP2A2 are a cause of acrokeratosis verruciformis (AKV) [MIM:101900]; also known as Hopf disease. AKV is a localized disorder of keratinization, which is inherited as an autosomal dominant trait. Its onset is early in life with multiple flat-topped, flesh-colored papules on the hands and feet, punctate keratoses on the palms and soles, with varying degrees of nail involvement. The histopathology shows a distinctive pattern of epidermal features with hyperkeratosis, hypergranulosis, and acanthosis together with papillomatosis. These changes are frequently associated with circumscribed elevations of the epidermis that are said to resemble church spires. There are no features of dyskeratosis or acantholysis, the typical findings in lesions of Darier disease.

Defects in ATP2A2 are the cause of Darier disease (DD) [MIM:124200]; also known as Darier-White disease (DAR). DD is an autosomal dominantly inherited skin disorder characterized by loss of adhesion between epidermal cells (acantholysis) and abnormal keratinization. Patients with mild disease may have no more than a few scattered keratotic papules or subtle nail changes, whereas those with severe disease are handicapped by widespread malodorous

keratotic plaques. In a few families, neuropsychiatric abnormalities such as mild mental retardation, schizophrenia, bipolar disorder and epilepsy have been reported. Stress, UV exposure, heat, sweat, friction, and oral contraception exacerbate disease symptoms. Prevalence has been estimated at 1 in 50000. Clinical variants of DD include hypertrophic, vesicobullous, hypopigmented, cornifying, zosteriform or linear, acute and comedonal subtypes. Comedonal Darier disease (CDD) is characterized by the coexistence of acne-like comedonal lesions with typical Darier hyperkeratotic papules on light-exposed areas. At histopathologic level, CDD differs from classic DD in the prominent follicular involvement and the presence of greatly elongated dermal villi.

**配列類似性**

Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIA subfamily.

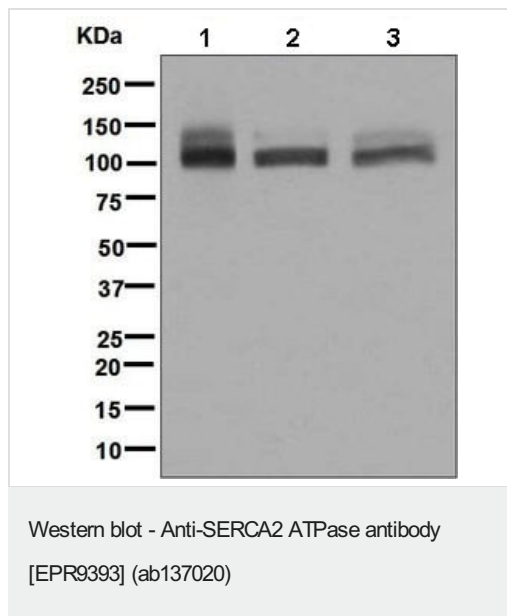
**翻訳後修飾**

Nitrated under oxidative stress. Nitration on the two tyrosine residues inhibits catalytic activity.

**細胞内局在**

Endoplasmic reticulum membrane. Sarcoplasmic reticulum membrane.

## 画像



**All lanes :** Anti-SERCA2 ATPase antibody [EPR9393] (ab137020) at 1/1000 dilution

**Lane 1 :** A673 cell lysate

**Lane 2 :** HeLa cell lysate

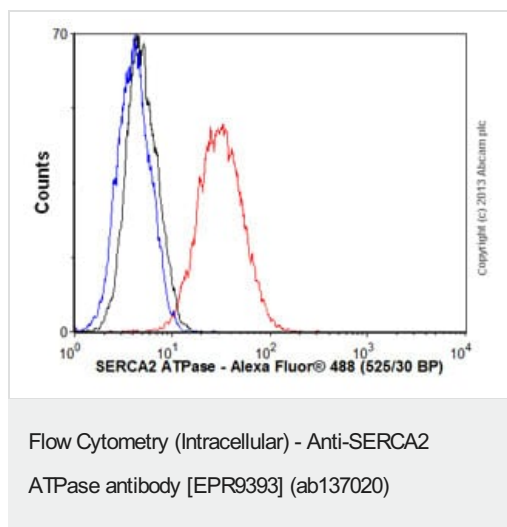
**Lane 3 :** HepG2 cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

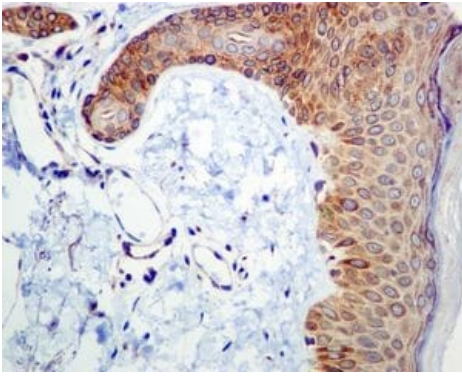
**All lanes :** HRP labelled goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 115 kDa



Overlay histogram showing HepG2 cells stained with ab137020 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab137020, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1 µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HepG2 cells fixed with 80% methanol (5 min)/permeabilized with

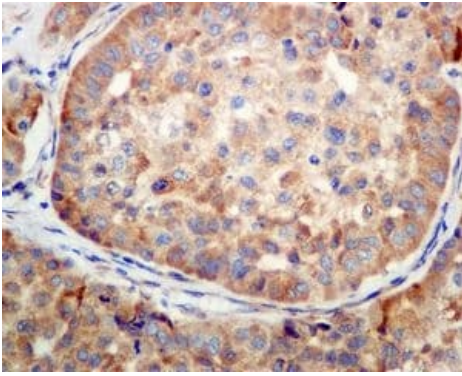
0.1% PBS-Tween for 20 min used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA2 ATPase antibody [EPR9393] (ab137020)

Immunohistochemical analysis of paraffin-embedded Human skin tissue labelling SERCA2 ATPase with ab137020 at 1/100 dilution.

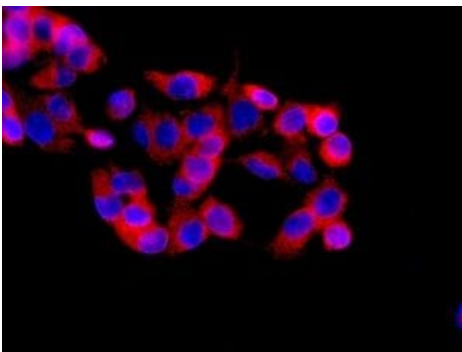
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SERCA2 ATPase antibody [EPR9393] (ab137020)

Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labelling SERCA2 ATPase with ab137020 at 1/100 dilution.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-SERCA2 ATPase antibody [EPR9393] (ab137020)

Immunofluorescent analysis of HepG2 cells labelling SERCA2 ATPase with ab137020 at 1/250 dilution.

## Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-SERCA2 ATPase antibody [EPR9393]  
(ab137020)

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