# abcam

## Product datasheet

## Anti-POLG antibody [EPR7295] ab128862

יעלאעבע RabMAb

2 References 画像数3

#### 製品の概要

製品名 Anti-POLG antibody [EPR7295]

製品の詳細 Rabbit monoclonal [EPR7295] to POLG

由来種 Rabbit

アプリケーション **適用あり:** WB

適用なし: Flow Cyt,ICC/IF,IHC-P or IP

種交差性 交差種: Human

免疫原 Synthetic peptide within Human POLG aa 50-150. The exact sequence is proprietary.

ポジティブ・コントロール 293T, HeLa, MCF7 and HepG2 cell lysates.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

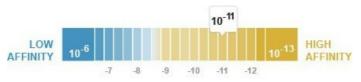
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

 $K_D = 2.61 \times 10^{-11} M$ 解離定数(KD値)



Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

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** EPR7295

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab128862の使用に適用されます 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   |
|----------|-----------|--|
| WB       |           | 1/1000 - 1/10000. Detects a band of approximately 140 kDa (predicted molecular weight: 140 kDa). |

追加情報

Is unsuitable for Flow Cyt,ICC/IF,IHC-P or IP.

#### ターゲット情報

## 機能

## 関連疾患

Involved in the replication of mitochondrial DNA.

Defects in POLG are the cause of progressive external ophthalmoplegia with mitochondrial DNA deletions autosomal dominant type 1 (PEOA1) [MIM:157640]. Progressive external ophthalmoplegia is characterized by progressive weakness of ocular muscles and levator muscle of the upper eyelid. In a minority of cases, it is associated with skeletal myopathy, which predominantly involves axial or proximal muscles and which causes abnormal fatigability and even permanent muscle weakness. Ragged-red fibers and atrophy are found on muscle biopsy. A large proportion of chronic ophthalmoplegias are associated with other symptoms, leading to a multisystemic pattern of this disease. Additional symptoms are variable, and may include cataracts, hearing loss, sensory axonal neuropathy, ataxia, depression, hypogonadism, and parkinsonism.

Defects in POLG are a cause of progressive external ophthalmoplegia with mitochondrial DNA deletions autosomal recessive (PEOB) [MIM:258450]. PEOB is a severe form of progressive external ophthalmoplegia. It is clinically more heterogeneous than the autosomal dominant forms. Can be more severe.

Defects in POLG are a cause of sensory ataxic neuropathy dysarthria and ophthalmoparesis (SANDO) [MIM:607459]. SANDO is a clinically heterogeneous systemic disorder with variable features resulting from mitochondrial dysfunction. It shares phenotypic characteristics with autosomal recessive progressive external ophthalmoplegia and mitochondrial neurogastrointestinal encephalopathy syndrome. The clinical triad of symptoms consists of sensory ataxic, neuropathy, dysarthria, and ophthalmoparesis.

Defects in POLG are a cause of Alpers-Huttenlocher syndrome (AHS) [MIM:203700]; also called Alpers diffuse degeneration of cerebral gray matter with hepatic cirrhosis. AHS is an autosomal recessive hepatocerebral syndrome. The typical course of AHS includes severe developmental delay, intractable seizures, liver failure, and death in childhood. Refractory seizures, cortical

blindness, progressive liver dysfunction, and acute liver failure after exposure to valproic acid are considered diagnostic features. The neuropathological hallmarks of AHS are neuronal loss, spongiform degeneration, and astrocytosis of the visual cortex. Liver biopsy results show steatosis, often progressing to cirrhosis.

Defects in POLG are a cause of mitochondrial neurogastrointestinal encephalopathy syndrome (MNGIE) [MIM:603041]; also known as myoneurogastrointestinal encephalomyopathy. MNGIE is an autosomal recessive disease associated with multiple deletions of skeletal muscle mitochondrial DNA (MtDNA). It is clinically characterized by onset between the second and fifth decades of life, ptosis, progressive external ophthalmoplegia, gastrointestinal dysmotility (often pseudoobstruction), diffuse leukoencephalopathy, thin body habitus, peripheral neuropathy, and myopathy.

Defects in POLG are a cause of Leigh syndrome (LS) [MIM:256000]. LS is a severe neurological disorder characterized by bilaterally symmetrical necrotic lesions in subcortical brain regions.

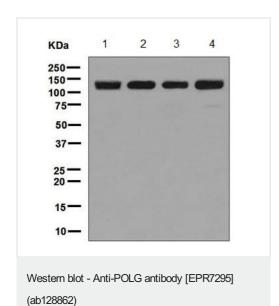
Belongs to the DNA polymerase type-A family.

Mitochondrion.

## 配列類似性

## 細胞内局在

### 画像



All lanes: Anti-POLG antibody [EPR7295] (ab128862) at 1/1000

dilution

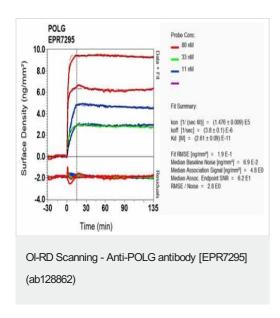
Lane 1 : 293T cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : MCF7 cell lysate
Lane 4 : HepG2 cell lysate

Lysates/proteins at 10 µg per lane.

## **Secondary**

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

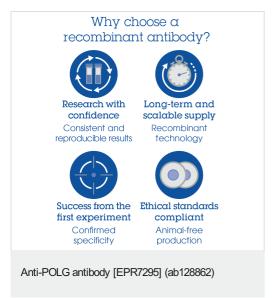
Predicted band size: 140 kDa



Equilibrium disassociation constant (K<sub>D</sub>)

Learn more about K<sub>D</sub>

## Click here to learn more about K<sub>D</sub>



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- · We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.co.jp/abpromise">https://www.abcam.co.jp/abpromise</a> or contact our technical team.

#### Terms and conditions

| • | Guarantee only valid for products bought direct from Abcam or one of our authorized distributors |   |  |  |  |
|---|--|---|--|--|--|
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  |   |  |  |  |
|   |  | 5 |  |  |  |