# abcam

# Product datasheet

# Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] ab126751

KO 評価済

リコンピナント

RabMAb

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#### 製品の概要

製品名 Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101]

製品の詳細 Rabbit monoclonal [EPR7101] to Monoamine Oxidase A/MAO-A

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), WB, IHC-P, ICC/IF

**種交差性 交差種:** Mouse, Rat, Human

免疫原 Synthetic peptide within Human Monoamine Oxidase A/MAO-A aa 450-550. The exact sequence

is proprietary.

(Peptide available as ab196045)

ポジティブ・コントロール WB: HepG2, Rat brain, and Mouse brain lysates. IHC-P: human hepatocellular carcinoma, mouse

liver, and rat liver tissues. ICC/IF: HepG2 cells.

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

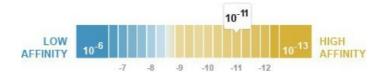
## 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

解離定数( $K_D$ 値)  $K_D = 5.10 \times 10^{-11} M$ 



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

**バッファー** pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

精製度 Protein A purified

**ポリ/モノ** モノクローナル

**クローン名** EPR7101

アイソタイプ lqG

#### 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ab126751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
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB	*****(1)	1/1000 - 1/10000. Predicted molecular weight: 60 kDa.
IHC-P	**** <u>(2)</u>	1/400. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.  See IHC antigen retrieval protocols.  For unpurified use at 1/50 - 1/100.
ICC/IF		1/50 - 1/100.

#### ターゲット情報

機能 Catalyzes the oxidative deamination of biogenic and xenobiotic amines and has important

functions in the metabolism of neuroactive and vasoactive amines in the central nervous system

and peripheral tissues. MAOA preferentially oxidizes biogenic amines such as 5-

hydroxytryptamine (5-HT), norepinephrine and epinephrine.

組織特異性 Heart, liver, duodenum, blood vessels and kidney.

関連疾患 Defects in MAOA are the cause of Brunner syndrome (BRUNS) [MIM:300615]. Brunner syndrome

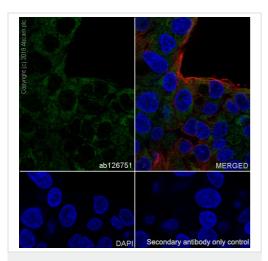
is a form of X-linked non-dysmorphic mild mental retardation. Male patients are affected by a syndrome of borderline mental retardation and exhibit abnormal behavior, including disturbed regulation of impulsive aggression. Obligate female carriers have normal intelligence and

behavior.

**配列類似性** Belongs to the flavin monoamine oxidase family.

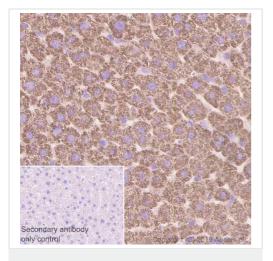
細胞内局在 Mitochondrion outer membrane.

#### 画像



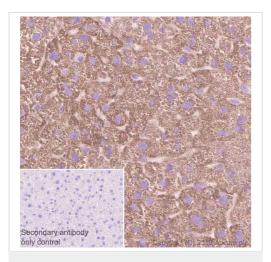
Immunocytochemistry/ Immunofluorescence - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

Immunocytochemistry/ Immunofluorescence analysis of HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling Monoamine Oxidase A/MAO-A with Purified ab126751 at 1:100 dilution (1.5 μg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 μg/ml). Goat anti rabbit lgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 μg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Monoamine Oxidase
A/MAO-A antibody [EPR7101] (ab126751)

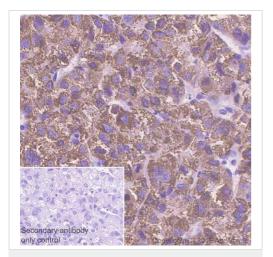
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue sections labeling Monoamine Oxidase A/MAO-A with Purified ab126751 at 1:400 dilution (0.38 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Monoamine Oxidase

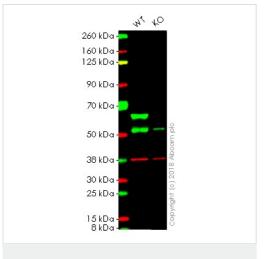
A/MAO-A antibody [EPR7101] (ab126751)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling Monoamine Oxidase A/MAO-A with Purified ab126751 at 1:400 dilution (0.38 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Monoamine Oxidase
A/MAO-A antibody [EPR7101] (ab126751)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular carcinoma tissue sections labeling Monoamine Oxidase A/MAO-A with Purified ab126751 at 1:400 dilution (0.38 µg/ml). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used for detection. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

**All lanes :** Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) at 1/1000 dilution

Lane 1: Wild-type HAP1 whole cell lysate

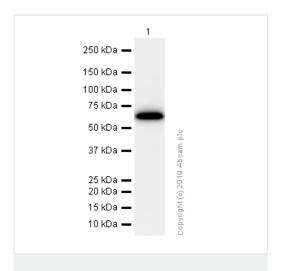
Lane 2: MAOA (Monoamine Oxidase A) knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 60 kDa

**Lanes 1 - 2:** Merged signal (red and green). Green - ab126751 observed at 60 kDa. Red - loading control, <u>ab8245</u>, observed at 0 kDa.

ab126751 was shown to recognize Monoamine Oxidase A in wild-type HAP1 cells as signal was lost at the expected MW in MAOA (Monoamine Oxidase A) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and MAOA (Monoamine Oxidase A) knockout samples were subjected to SDS-PAGE. Ab126751 and <a href="mab8245">ab8245</a> (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed <a href="mab216773">ab216773</a> and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed <a href="mab216776">ab216776</a> secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) at 1/10000 dilution (Purified) + Mouse brain lysates at  $15 \, \mu g$ 

#### Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 60 kDa **Observed band size:** 60 kDa



Western blot - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

**All lanes :** Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) at 1/1000 dilution (Purified)

**Lane 1**: HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysates

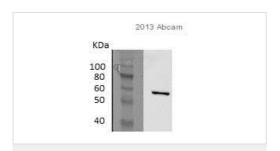
Lane 2: Rat brain lysates

Lysates/proteins at 15 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 60 kDa Observed band size: 60 kDa



Western blot - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

This image is courtesy of an anonymous Abreview

Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) at 1/2000 dilution (unpurified) + Mouse brain cortex tissue lysate - whole at 20 µg

#### Secondary

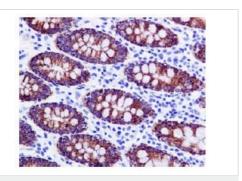
HRP-conjugated Goat anti-rabbit IgG polyclonal at 1/2000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 60 kDa **Observed band size:** 60 kDa

Exposure time: 1 minute

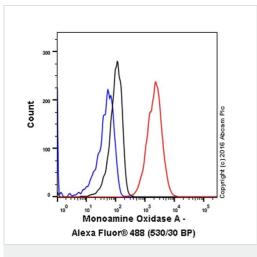


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Monoamine Oxidase

A/MAO-A antibody [EPR7101] (ab126751)

ab126751 (unpurified), at 1/50 dilution, staining Monoamine Oxidase A/MAO-A in paraffin embedded Human colon tissue by Immunohistochemistry.

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

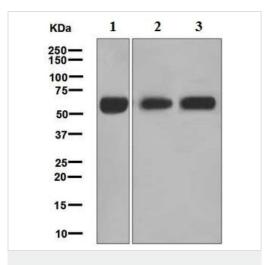


Flow Cytometry (Intracellular) - Anti-Monoamine
Oxidase A/MAO-A antibody [EPR7101] (ab126751)

ab126751 (purified) staining Monoamine Oxidase A/MAO-A in the human cell line HepG2 (human hepatocellular carcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/20. A goat anti rabbit lgG (Alexa Fluor<sup>®</sup> 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



Western blot - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751)

**All lanes :** Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) at 1/1000 dilution (unpurified)

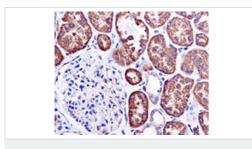
Lane 1 : HepG2 lysate
Lane 2 : NCI-H460 lysate
Lane 3 : Fetal liver lysate

Lysates/proteins at 10 µg per lane.

#### **Secondary**

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

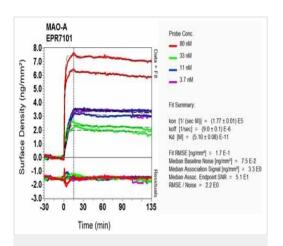
Predicted band size: 60 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Monoamine Oxidase
A/MAO-A antibody [EPR7101] (ab126751)

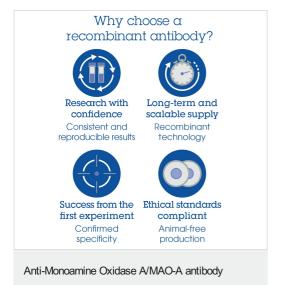
ab126751 (unpurified), at 1/50 dilution, staining Monoamine
Oxidase A/MAO-A in paraffin embedded Human kidney tissue by
Immunohistochemistry.

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



Ol-RD Scanning - Anti-Monoamine Oxidase A/MAO-A antibody [EPR7101] (ab126751) Equilibrium disassociation constant ( $K_D$ ) Learn more about  $K_D$ 

Click here to learn more about KD



[EPR7101] (ab126751)

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