## abcam

## Product datasheet

## Anti－ABCA4 antibody ab72955

## 4 References 画像数 1

## 製品の概要

| 製品名 | Anti－ABCA4 antibody |
| :---: | :---: |
| 製品の詳細 | Rabbit polyclonal to ABCA4 |
| 由来種 | Rabbit |
| アプリケーション | 適用あり：WB |
| 種交差性 | 交差種：Mouse，Human |
|  | 交差が予測される動物種：Cow，Dog，Macaque monkey－非交差種：Rat |
| 免疫原 | Synthetic peptide corresponding to Human ABCA4 aa 2250 to the C－terminus（C terminal） conjugated to keyhole limpet haemocyanin． <br> （Peptide available as ab87350） |
| ポジティブ・コントロール | This antibody gave a positive signal in Human and Mouse Retina Tissue lysates． |
| 特記事項 | The Life Science industry has been in the grips of a reproducibility crisis for a number of years． Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold－standard validation．Please check that this product meets your needs before purchasing． |
|  | If you have any questions，special requirements or concerns，please send us an inquiry and／or contact our Support team ahead of purchase．Recommended alternatives for this product can be found below，along with publications，customer reviews and Q\＆As |

## 製品の特性

| 製品の状態 | Liquid |
| :---: | :---: |
| 保存方法 | Shipped at $4^{\circ} \mathrm{C}$ ．Store at $+4^{\circ} \mathrm{C}$ short term（ $1-2$ weeks）．Upon delivery aliquot．Store at $-20^{\circ} \mathrm{C}$ or $80^{\circ} \mathrm{C}$ ．Avoid freeze／thaw cycle． |
| バッファー | pH： 7.40 |
|  | Preservative：0．02\％Sodium azide |
|  | Constituent：PBS |
|  | Batches of this product that have a concentration $<1 \mathrm{mg} / \mathrm{ml}$ may have BSA added as a stabilising agent．If you would like information about the formulation of a specific lot，please contact our scientific support team who will be happy to help． |
| 精製度 | Immunogen affinity purified |

## 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ab72955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 |  | Use a concentration of $1 \mu \mathrm{~g} / \mathrm{ml}$. Detects a band of approximately <br> 238 kDa （predicted molecular weight： 256 kDa$).$ |

## ターゲット情報

機能
In the visual cycle，acts as an inward－directed retinoid flipase，retinoid substrates imported by ABCA4 from the extracellular or intradiscal（rod）membrane surfaces to the cytoplasmic membrane surface are all－trans－retinaldehyde（ATR）and N－retinyl－phosphatidyl－ethanolamine （NR－PE）．Once transported to the cytoplasmic surface，ATR is reduced to vitamin A by trans－ retinol dehydrogenase（tRDH）and then transferred to the retinal pigment epithelium（RPE）where it is converted to 11－cis－retinal．May play a role in photoresponse，removing ATR／NR－PE from the extracellular photoreceptor surfaces during bleach recovery．

Retinal－specific．Seems to be exclusively found in the rims of rod photoreceptor cells．
Defects in ABCA4 are the cause of Stargardt disease type 1 （STGD1）［MIM：248200］．STGD is one of the most frequent causes of macular degeneration in childhood．It is characterized by macular dystrophy with juvenile－onset，rapidly progressive course，alterations of the peripheral retina，and subretinal deposition of lipofuscin－like material．STGD1 inheritance is autosomal recessive．

Defects in ABCA4 are the cause of fundus flavimaculatus（FFM）［MIM：248200］．FFM is an autosomal recessive retinal disorder very similar to Stargardt disease．In contrast to Stargardt disease，FFM is characterized by later onset and slowly progressive course．

Defects in ABCA4 may be a cause of age－related macular degeneration type 2 （ARMD2） ［MIM：153800］．ARMD is a multifactorial eye disease and the most common cause of irreversible vision loss in the developed world．In most patients，the disease is manifest as ophthalmoscopically visible yellowish accumulations of protein and lipid（known as drusen）that lie beneath the retinal pigment epithelium and within an elastin－containing structure known as Bruch membrane．

Defects in ABCA4 are the cause of cone－rod dystrophy type 3 （CORD3）［MIM：604116］．CORDs are inherited retinal dystrophies belonging to the group of pigmentary retinopathies．CORDs are characterized by retinal pigment deposits visible on fundus examination，predominantly in the macular region，and initial loss of cone photoreceptors followed by rod degeneration．This leads to decreased visual acuity and sensitivity in the central visual field，followed by loss of peripheral vision．Severe loss of vision occurs earlier than in retinitis pigmentosa． Defects in ABCA4 are the cause of retinitis pigmentosa type 19 （RP19）［MIM：601718］．RP leads to degeneration of retinal photoreceptor cells．Patients typically have night vision blindness and loss of midperipheral visual field．As their condition progresses，they lose their far peripheral visual field and eventually central vision as well．RP19 is characterized by choroidal atrophy． Inheritance is autosomal recessive．

## 配列類似性

細胞内局在

Belongs to the $A B C$ transporter superfamily．$A B C A$ family． Contains 2 ABC transporter domains．

Membrane．Localized to outer segment disk edges of rods and cones，with around one million copies／photoreceptor．

画像


All lanes：Anti－ABCA4 antibody（ab72955）at $1 \mu \mathrm{~g} / \mathrm{ml}$

Lane 1 ：Eye（Human）－adult normal Tissue Lysate
Lane 2 ：Retina（Mouse）Tissue Lysate
Lane 3 ：Retina（Rat）Tissue Lysate

Lysates／proteins at $10 \mu \mathrm{~g}$ per lane．

## Secondary

All lanes：Goat Anti－Rabbit IgG H\＆L（HRP）preadsorbed at 1／50000 dilution

Developed using the ECL technique．

Performed under reducing conditions．

Predicted band size： 256 kDa
Observed band size： 235 kDa
Additional bands at： $31 \mathrm{kDa}, 41 \mathrm{kDa}, 55 \mathrm{kDa}$ ．We are unsure as to the identity of these extra bands．

Exposure time： 8 minutes

This blot was produced using a 3－8\％Tris Acetate gel under the TA buffer system．The gel was run at 150 V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30 V for 70 minutes． The membrane was then blocked for an hour using $2 \%$ Bovine Serum Albumin before being incubated with ab72955 overnight at $4^{\circ} \mathrm{C}$ ．Antibody binding was detected using an anti－rabbit antibody conjugated to HRP，and visualised using ECL development solution ab133406．

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