abcam

Product datasheet

Anti-non-muscle Myosin IIA antibody ab89837

KO 評価済

画像数 3

製品の概要

製品名	Anti-non-muscle Myosin IIA antibody
製品の詳細	Rabbit polyclonal to non-muscle Myosin IIA
由来種	Rabbit
アプリケーション	**適用あり:** ICC/IF, WB
種交差性	**交差種:** Human **交差が予測される動物種:** Mouse, Rat, Dog
免疫原	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human non-muscle Myosin IIA.Immunogen の所有権に関して(Peptide available as ab99161.)
ポジティブ・コントロール	This antibody gave a positive signal in human kidney and human thymus tissue lysates, and in the following whole cell lysates: HeLa; HEK293; MCF7.

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 or -80°C. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

Our Abpromise guarantee covers the use of **ab89837** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
ICC/IF		Use a concentration of 5 µg/ml.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 226 kDa (predicted molecular weight: 226 kDa).

ターゲット情報

機能

Cellular myosin that appears to play a role in cytokinesis, cell shape, and specialized functions such as secretion and capping.

組織特異性

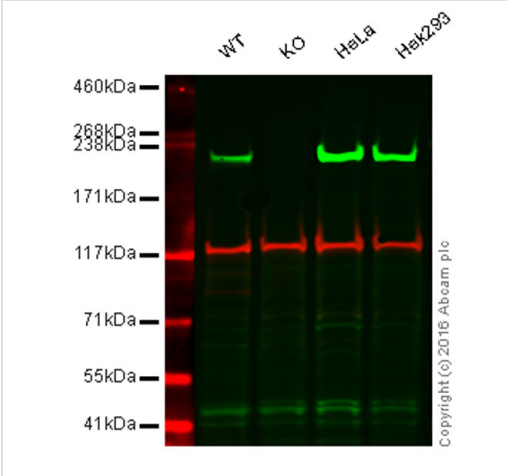
In the kidney, expressed in the glomeruli. Also expressed in leukocytes.

関連疾患

Defects in MYH9 are the cause of May-Hegglin anomaly (MHA) [MIM:155100]. MHA is an autosomal dominant macrothrombocytopenia characterized by thrombocytopenia, giant platelets and leukokyte inclusions appearing as highly parallel paracrystalline bodies.
Defects in MYH9 are the cause of Sebastian syndrome (SBS) [MIM:605249]. SBS is an autosomal dominant macrothrombocytopenia characterized by thrombocytopenia, giant platelets and leukocyte inclusions that are smaller and less organized than in May-Hegglin anomaly.
Defects in MYH9 are the cause of Fechtner syndrome (FTNS) [MIM:153640]. FTNS is an autosomal dominant macrothrombocytopenia characterized by thrombocytopenia, giant platelets and leukocyte inclusions that are small and poorly organized. Additionally, FTNS is distinguished by Alport-like clinical features of sensorineural deafness, cataracts and nephritis.
Defects in MYH9 are the cause of Alport syndrome with macrothrombocytopenia (APSM) [MIM:153650]. APSM is an autosomal dominant disorder characterized by the association of ocular lesions, sensorineural hearing loss and nephritis (Alport syndrome) with platelet defects.
Defects in MYH9 are the cause of Epstein syndrome (EPS) [MIM:153650]. EPS is an autosomal dominant disorder characterized by the association of macrothrombocytopathy, sensorineural hearing loss and nephritis.
Defects in MYH9 are the cause of deafness autosomal dominant type 17 (DFNA17) [MIM:603622]. DFNA17 is a form of sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain, or the area of the brain that receives sound information. DFNA17 is characterized by progressive hearing impairment and cochleosaccular degeneration.
Defects in MYH9 are the cause of macrothrombocytopenia with progressive sensorineural deafness (MPSD) [MIM:600208]. MPSD is an autosomal dominant disorder characterized by the association of macrothrombocytopathy and progressive sensorineural hearing loss without renal dysfunction.
Note=Subjects with mutations in the motor domain of MYH9 present with severe thrombocytopenia and develop nephritis and deafness before the age of 40 years, while those with mutations in the tail domain have a much lower risk of noncongenital complications and significantly higher platelet counts. The clinical course of patients with mutations in the four most frequently affected residues of MYH9 (responsible for 70% of MYH9-related cases) were evaluated. Mutations at residue 1933 do not induce kidney damage or cataracts and cause deafness only in the elderly, those in position 702 result in severe thrombocytopenia and produce nephritis and deafness at a juvenile age, while alterations at residue 1424 or 1841 result in intermediate clinical pictures.
Note=Genetic variations in MYH9 are associated with non-diabetic end stage renal disease (ESRD).

配列類似性	Contains 1 IQ domain. Contains 1 myosin head-like domain.
ドメイン	The rodlike tail sequence is highly repetitive, showing cycles of a 28-residue repeat pattern composed of 4 heptapeptides, characteristic for alpha-helical coiled coils.
翻訳後修飾	ISGylated.

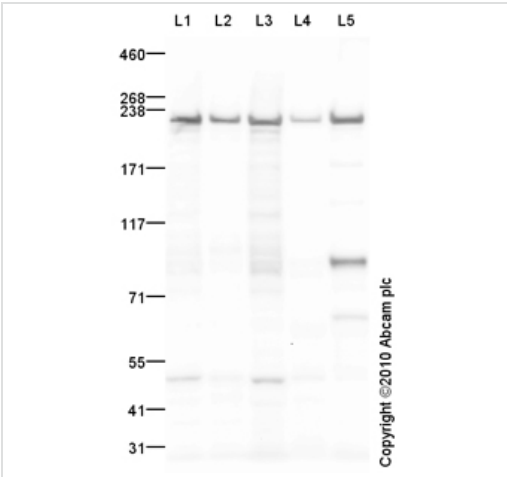
画像



Western blot - Anti-non-muscle Myosin IIA antibody (ab89837)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: non-muscle Myosin IIA knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HEK293 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab89837 observed at 230 kDa. Red - loading control, ab18058, observed at 124 kDa.

ab89837 was shown to recognize non-muscle Myosin IIA in wild-type HAP1 cells along with additional cross-reactive bands. No bands were observed when non-muscle Myosin IIA knockout samples were examined. Wild-type and non-muscle Myosin IIA knockout samples were subjected to SDS-PAGE. ab89837 at a concentration of 1µg/ml and ab18058 (loading control to Vinculin) at a dilution of 1/1000 were incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ab216776 secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-non-muscle Myosin IIA antibody (ab89837)

All lanes : Anti-non-muscle Myosin IIA antibody (ab89837) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
Lane 3 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 4 : Human kidney tissue lysate - total protein (ab30203)
Lane 5 : Human thymus tissue lysate - total protein (ab30146)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed

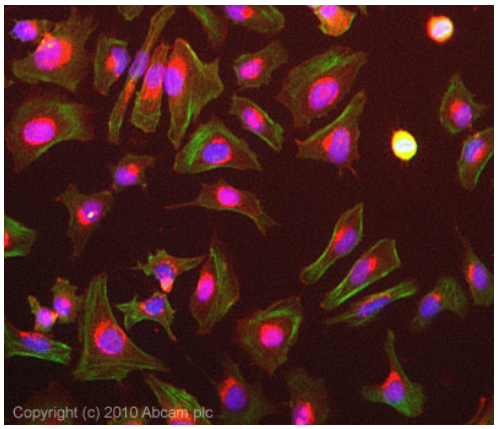
(HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 226 kDa
Observed band size: 226 kDa
Additional bands at: 100 kDa, 50 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds



Immunocytochemistry/ Immunofluorescence - Anti-non-muscle Myosin IIA antibody (ab89837)

ICC/IF image of ab89837 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab89837 at 5µg/ml overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti- rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in Hek293, and MCF-7 cells in 4% formaldehyde at 5ug/ml

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