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Product datasheet

Anti-Vinculin antibody ab91459

★★★★★ 1 Abreviews 10 References 画像数 3

製品の概要

製品名 Anti-Vinculin antibody

製品の詳細 Rabbit polyclonal to Vinculin

由来種 Rabbit

アプリケーション 適用あり: IHC-P, WB, IP 種交差性 交差種: Mouse, Human

交差が予測される動物種: Rat, Rabbit, Horse, Chicken, Guinea pig, Cow, Turkey, Pig, Chimpanzee, Zebrafish, Rhesus monkey, Gorilla, Tilapia, Orangutan, Medaka fish, Platypus

A

免疫原 Synthetic peptide corresponding to Human Vinculin aa 1000 to the C-terminus (C terminal).

Database link: P18206-2

Run BLAST with
Run BLAST with

ポジティブ・コントロール

特記事項

HeLa, 293T or NIH3T3 whole cell lysate.

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°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

バッファー pH: 7

Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate

精製度 Immunogen affinity purified

ポリ/モノ ポリクローナル

アイソタイプ lgG

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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ab91459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
IHC-P		1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	****(1)	1/2000 - 1/10000. Predicted molecular weight: 124 kDa.
IP		Use at 5-15 μg/mg of lysate.

ターゲット情報

機能

Actin filament (F-actin)-binding protein involved in cell-matrix adhesion and cell-cell adhesion. Regulates cell-surface E-cadherin expression and potentiates mechanosensing by the E-cadherin complex. May also play important roles in cell morphology and locomotion.

組織特異性 Metavinculin is muscle-specific.

Defects in VCL are the cause of cardiomyopathy dilated type 1W (CMD1W) [MIM:611407]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.

Defects in VCL are the cause of cardiomyopathy familial hypertrophic type 15 (CMH15) [MIM:613255]. It is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.

Belongs to the vinculin/alpha-catenin family.

Exists in at least two conformations. When in the closed, 'inactive' conformation, extensive interactions between the head and tail domains prevent detectable binding to most of its ligands. It takes on an 'active' conformation after cooperative and simultaneous binding of two different ligands. This activation involves displacement of the head-tail interactions and leads to a significant accumulation of ternary complexes. The active form then binds a number of proteins that have both signaling and structural roles that are essential for cell adhesion.

The N-terminal globular head (Vh) comprises of subdomains D1-D4. The C-terminal tail (Vt) binds F-actin and cross-links actin filaments into bundles. An intramolecular interaction between Vh and Vt masks the F-actin-binding domain located in Vt. The binding of talin and alpha-actinin to the D1 subdomain of vinculin induces a helical bundle conversion of this subdomain, leading to the disruption of the intramolecular interaction and the exposure of the cryptic F-actin-binding domain of Vt. Vt inhibits actin filament barbed end elongation without affecting the critical concentration of actin assembly.

Phosphorylated; on serines, threonines and tyrosines. Phosphorylation on Tyr-1133 in activated platelets affects head-tail interactions and cell spreading but has no effect on actin binding nor on localization to focal adhesion plaques.

Aceylated; mainly by myristic acid but also small amount of palmitic acid.

関連疾患

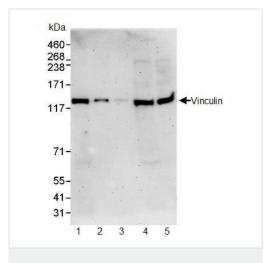
配列類似性

ドメイン

翻訳後修飾

Cytoplasm > cytoskeleton. Cell junction > adherens junction. Cell membrane. Cytoplasmic face of adhesion plaques. Recruitment to cell-cell junctions occurs in a myosin II-dependent manner. Interaction with CTNNB1 is necessary for its localization to the cell-cell junctions.

画像



Western blot - Anti-Vinculin antibody (ab91459)

All lanes : Anti-Vinculin antibody (ab91459) at 0.1 μ g/ml

Lane 1 : HeLa whole cell lysate at 50 μg Lane 2 : HeLa whole cell lysate at 15 μg Lane 3 : HeLa whole cell lysate at 5 μg Lane 4 : 293T whole cell lysate at 50 μg

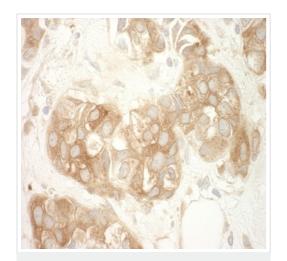
Lane 5: Mouse NIH3T3 whole cell lysate at 50 µg

Developed using the ECL technique.

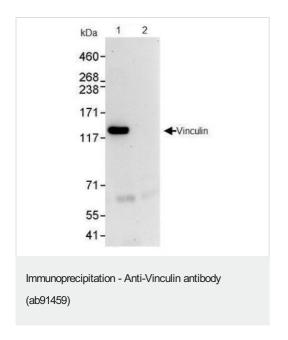
Predicted band size: 124 kDa

Exposure time: 3 minutes

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling Vinculin with ab91459 at 1/1000 ($1\mu g/ml$). Detection: DAB.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Vinculin antibody (ab91459)



SSA1 was immunoprecipitated from 1mg HeLa whole cell lysate using 10µg ab91459.

20% of the immunoprecipitate was loaded per lane, and probed with ab91459 at 1μ g/ml (lane 1) or a control lgG (lane2).

Detection: chemoluminescence with an exposure time of 10 seconds.

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