

Recombinant Human Vinculin protein ab131747

画像数 1

製品の詳細

製品名	Recombinant Human Vinculin protein
発現系	Wheat germ
アクセッション番号	<u>P18206-2</u>
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human
配列	MPVFHTRTIESILEPVAQQISHLVIMHEEGEVDGKAIPDLTA PVAAVQAA VSNLVRVGKETVQTTEQILKRDMPPAFIKVENACTKLVQAA QMLQSDPY SVPARDYLIDSGRILSGTSDLLTFDEAEVRKIIRVCKGIL EYLTVAEV VETMEDLVITYTKNLGPGMTKMAKMIDERQQELTHQHRVMLV NSMNTVKE LLPVLISAMKIFVTTKNSKNQGIEEALKNRNFTLEKMSAEIN EIIRVLQL TSWDEDAWASKDTEAMKRALASIDSKLNQAKGWLDRPSASPG DAGEQAIR QILDEAGKVGELCAGKERREILGTCKMLGQMTDQVADLRARG QGSSPVAM QKAQQVSQGLDVLTAKVENAARKLEAMTNSKQSIAKKIDAAQ NWLADPNG GPEGEEQIRGALAEARKIAELCDDPKERDDILRSLGEISALT SKLADLRR QGKGDSPEARALAKQVATALQNLQTKTNRAVANSRPAKAAVH LEGKIEQA QRWIDNPTVDDRQAAIRGLVAEGHRLANVMMGPYRQDLL AKCDRVDQ LTAQLADLAARGESESPQARALASQLQDSLKDLKARMQEAMT QEVSDVFS DTTTPIKLLAVAATAPPDAPNREEVFDERAANFENHSGKLG TAEKAAAV GTANKSTVEGIQASVKTARELTPQVVSAAIRILLRNPNGQAAY EHFETMKN

QWIDNVEKMTGLVDEAIDTKSLLDASEEAIKKDLDKCKVAMA
NIQPQMLV
AGATSIARRANRILLVAKREVENSEDPKFREAVKAASDELSK
TISPMVMD
AKAVAGNISDPGLQKSFLDSGYRILGAVAKVREAFQPQPDF
PPPPDLE
QLRLTDELAPPKPLPEGEVPPPRPPPEEKDEEFPEQKAGE
VINQPMMM
AARQLHDEARKWSSKGNDIAAAKRMALLMAEMSRLVRGGSG
TKRALIQC
AKDIAKASDEVTRLAKEVAKQCTDKRIRTNLLQVCERIPTIS
TQLKILST
VKATMLGRTNISDEESEQATEMLVHNAQNLMSVKETVREAE
AASIKIRT DAGFTLRWVRKTPWYQ

予測される分子量 143 kDa including tags
領域 1 to 1066

特性

Our **Abpromise guarantee** covers the use of **ab131747** 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 ELISA
SDS-PAGE
Western blot
製品の状態 Liquid

前処理および保存

保存方法および安定性 Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.
pH: 8.00
Constituents: 0.31% Glutathione, 0.79% Tris HCl

関連情報

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.

関連疾患 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.

配列類似性

Belongs to the vinculin/alpha-catenin family.

ドメイン

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.

翻訳後修飾

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.

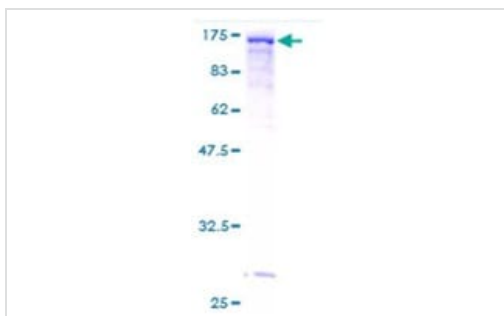
Aceylated; mainly by myristic acid but also small amount of palmitic acid.

細胞内局在

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



12.5% SDS-PAGE analysis of ab131747, stained with Coomassie Blue.

SDS-PAGE - Recombinant Human Vinculin protein
(ab131747)

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