

## Recombinant Human VCL/Vinculin Protein

**Catalog No.** PKSH033212

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

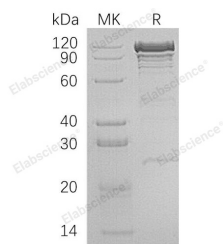
### Description

<b>Synonyms</b>	Vinculin;Metavinculin;VCL;CMD1W;CMH15;HEL114;MV;MVCL
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Pro2-Gln1066
<b>Accession</b>	AAH39174.1
<b>Calculated Molecular Weight</b>	117.0 kDa
<b>Observed molecular weight</b>	115 kDa
<b>Tag</b>	None
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Vinculin is a focal adhesion and cytoskeletal protein that distributed mainly at cell-cell junctions and cell-extracellular matrix (ECM) adhesion that belongs to the Vinculin/ $\alpha$ -Catenin family. Vinculin is an Actin-binding protein and

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component of the Actin-Linking Functional module that senses and feels the mechanical properties of the extracellular environment. Vinculin is also a key factor that couples, transmits, transduces, and regulates mechanical force between the cytoskeleton and adhesion receptors. Vinculin generally forms two structural states, an open (active) and closed (inactive) state, which are controlled by conformational interaction(s) between the head and tail domains. Vinculin is involved in the mechano-chemical signal transmission of cells by binding to a variety of focal adhesion or cytoskeletal proteins, and plays important roles in cell adhesion, extension, motion, proliferation and survival.