

## Recombinant Human NovoNectin

Catalog No.: RP0029

### Basic Information

#### Information

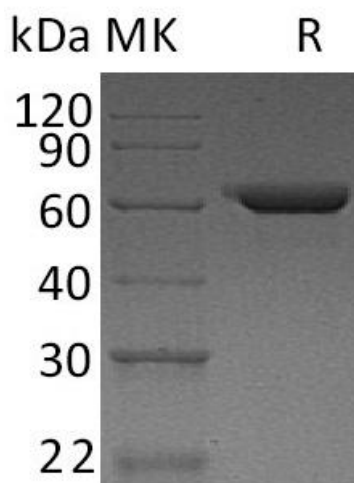
Source	<i>E.coli</i>
Description	Recombinant Human Fibronectin Fragment is produced by our E.coli expression system and the target gene encoding Pro1270-Ser1546&Ala1721-Thr2016 is expressed.
Accession	P02751
Known As	NovoNectin; Fibronectin; FN; Cold-insoluble globulin; CIG; FN; Fibronectin 1
Predicted Mol Mass	62.7 KDa
Apparent Mol Mass	60-80 KDa, reducing conditions

#### Properties

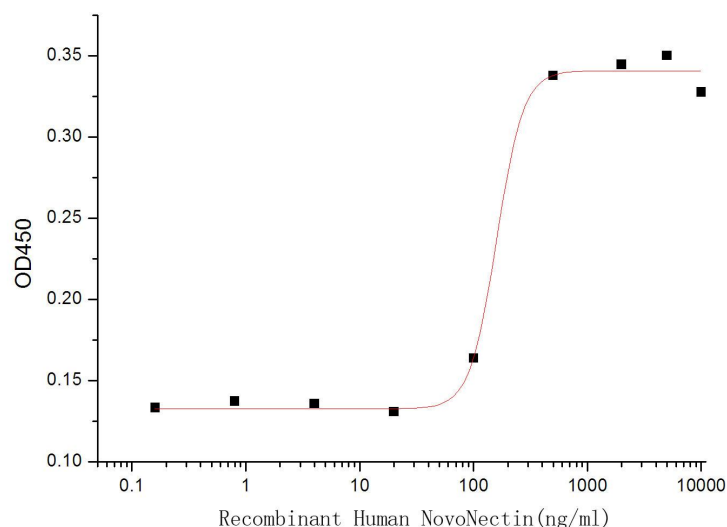
Formulation	Lyophilized from a 0.2 µm filtered solution of 12.5 mM Citric acid, 1.25% Sucrose, 0.1% Tween80, pH 5.5 .
Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Endotoxin	< 0.01 EU/µg as determined by LAL test.
Reconstitution	Always centrifuge tubes before opening.Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.

## Experimental Data

### Purity-SDS-PAGE



### Bioactivity-Cell Based Assay



Greater than 95% as determined by reducing SDS-PAGE. (QC verified) Measured by its ability to support cell attachment and spreading when used as a substratum for cell culture. The ED50 for this effect is 0.1-0.5  $\mu\text{g/ml}$ .

## Background

Fibronectin1(FN1) is a secreted protein and contains 12 fibronectin type-I domains, fibronectin type-II domains and 16 fibronectin type-III domains. Recombinant human fibronectin fragment, is a protein of ~63 kDa containing a central cell-binding domain, a high affinity heparin-binding domain II, and CS1 site within the alternatively spliced III CS region of human fibronectin. Cells bind to a VLA-4 ligand, a CS-I site, and a VLA-5 ligand, a cell attachment domain, and virus vectors binds to a heparin binding domain II, which co-locates the cell and the virus vector on NovoNectin. This process enhances the density of both cells and vectors, and facilitates the gene transduction in the result.