

Fibronectin is a high-molecular weight (~440kDa) [glycoprotein](#) of the [extracellular matrix](#) that binds to membrane-spanning receptor proteins called [integrins](#).

Similar to integrins, fibronectin binds extracellular matrix components such as collagen, fibrin, and heparan sulfate proteoglycans (e.g. syndecans).

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[Alpha-5 beta-1](#) ( $\alpha 5 \beta 1$ ), also known as the [fibronectin](#) receptor, is an [integrin](#) that binds to matrix macromolecules and proteinases and thereby stimulates [angiogenesis](#).

It is composed of  $\alpha 5$  (ITGA5/CD49e) and  $\beta 1$  (ITGB1/CD29) subunits. It is the primary receptor for fibronectin. The interaction of VLA-5 with fibronectin plays an important role in regulating inflammatory cytokine production by human articular chondrocytes (From the Cell Migration Gateway ITGA5 ITGB1).

$\alpha 5 \beta 1$ -integrin is transported inside the cell by the kinesin KIF1C, a kinesin-3 organelle transporter that walks along microtubules.

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