

# Chapter 13

## 13.11

### Proteins associated with actin filaments

Proteins	Function	Example
Nucleating proteins	Provide a template for adding actin monomers	Arp2/3 complex, Formin Branched versus, Unbranched filaments
Monomer-sequestering proteins	Bind to actin-ATP monomers prevent them from polymerizing	Thymosin b4
End-blocking (capping) proteins	Regulate the length of actin filaments	CapZ, tropomodulin
Monomer-polymerizing proteins	Promote the growth of actin filaments	Profilin
Actin filament depolymerizing proteins	Bind to actin-ADP subunits for rapid turnover of actin filaments.	Cofilin
Cross-linking proteins	Alter the three dimensional organization of actin filaments	Filamin(x-link), Villin, Fimbrin(bunding)
Filament-severing proteins	Shorten filaments and decrease cytoplasmic viscosity	Gelsolin
Membrane-binding proteins	Link contractile proteins to plasma membrane	Vinculin, Spectrin(dystrophin)

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فلا تقنع بما دون النجوم

إذا غامرت في شرفٍ مروم