Table 1 Integrin Binding Proteins

Binding target	Binding protein	Characteristics	Function	Reference
β subunits				
$\beta 2$	Cytohesin-1	PH- and SEC7 domains	Enhances $\alpha L\beta 2$ binding to ICAM	1
$\beta 3$	Endonexin	Small cytoplasmic protein	Affinity modulation	2
$\beta 4$	p27BBP	Intermediate filament association	?	3
β	ILK-1	Serine/threonine kinase	Negatively modulates integrin-cytoskeleton interactions? growth control	4
β	ICAP1	Phosphoprotein	Affinity modulation? integrin-cytoskeleton modulation?	5
β	CD98	Transmembrane protein	Affinity modulation	6
$\beta 1$	Melusin	Cytoplasmic protein	Regulated by calcium; role in muscle	7
$\beta 7$	Wait 1	WD repeat	?	8
β subunits	Rack-1	WD repeat	Binds active PKC	9
β subunits	Talin	Focal contact protein	Links to actin filaments	10
β subunits	α actinin	Focal contact protein	Links to actin filaments	10
α subunits				
Multiple α's	Calreticulin	Calcium regulatory protein	Modulates integrin-triggered Ca2+ influx and Ca2+-dependent cytoskeletal events	11
αIIb	CIB	Similarities to calmodulin and calcineurin	Affinity modulation?	12
$\alpha 5$	Nischarin	Large cytoplasmic protein	Inhibits cell motility	13
$\alpha 4$	Paxillin	Focal contact protein	Regulates cell motility	14
certain α subunits	Caveolin	Lipid raft protein	Signaling to Erk	15
Transmembrane domains				
	TM4 proteins	Four membrane-spanning helices	Signal transduction?	16

Table 2 Recent examples of synergisms between integrins and RTK signaling

RTK	Integrin	Observed effects	Reference
EGFR, PDGFR	$\beta1$	Lack of $\beta1$ integrin results in reduced growth factor driven cell motility	17
Various	$\beta1$	$\beta1$ dominant negative effects keratinocyte differentiation	18
EGFR	$\beta1$	RTK /integrin interactions influence differentiation of breast epithelial 3-D cultures	19
RON	Various	RON tyrosine phosphorylation	20
ErbB-2	$\alpha6\beta4$	PI-3-kinase dependent invasiveness	21
Met	Fibronectin binding integrins	Cell survival (anoikis)	22
IGF-1 R	$\alpha v\beta3$	Phosphorylation of IRS-1	23
Insulin R	$\beta1$	Stimulation of PI-3-K and Akt	24
Several	$\alpha5$, $\alpha6$, $\beta1$	Myoblast growth and differentiation	25
Insulin-R	$\alpha6\beta1$	Mammary epithelial cell differentiation	26
EGFR, PDGFR	$\alpha5\beta1$	Reduced apoptosis in response to growth factor deprivation	27

Table 3 Associations between signaling components and the cytoskeleton

Cytoskeletal component	Signaling component	Effect	Reference
Microtubule polymerization	Rac-1	Activation	28
Microtuble or actin filament depolymerization	JNK, p38	Activation	29
Microtubule disruption	MEKK1	Activation	30
Actin treadmilling; decreases in G actin	SRF	Activation	31
Tensin overexpression	JNK, p38	Activation	32
Actin filament depolymeriztion	Insulin signaling to Erk	Inhibition	33
Actin filaments	Ras, Raf, MEK, Erk	Association with filaments	34
Ezrin	PI-3-kinase	Activation	35

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