

Supplementary information S1 (table) | EGFR docking sites and binding partners

Tyrosine residue		Surrounding sequence	Kinase(s)	Binding partner(s)	Reference(s)
Precursor Index*	Processed Index*				
869	845	AEEKEYHAEGG	Src ^{1,2,3}	STAT1/3 ^{&}	1, 2, 3
915	891	FGSKPYDGIPA	Src ⁴	p85 ⁴ , Src ⁴	4
944	920	CTIDVYIMIMVK	Src ⁴ , Insulin Receptor Kinase [#]	p85 ^{4,#} , Src ⁴	4
978	954	RDPQRQLVIQG	ND ^{\$}	PLC γ	
998	974	TDSNFYRALMD	NA ^{%,%}	AP-2 ^{5,%}	5
1016	992	VDADEYLIPQQ	ND ^{\$}	PLC γ ^{6,#} , PTP-1B ⁷ , RasGAP ⁸ , SHP2 ⁸	6, 7, 8
1069	1045	SFLQRYSSDPT	ND ^{\$}	Eps15 ^{&&} , Cbl ⁹	9
1092	1068	LPVPEYINQSV	EGFR ^{10,#}	Grb2 ^{11,#}	10, 11
1110	1086	VQNPVYHNQPL	EGFR ^{12,#}	Grb2 ^{11,#} , Dok-R ¹³ , Abl ¹⁴ , Shc [#]	11, 12, 13, 14
1125	1101	SRDPHYQDPHS	Src ¹⁵	Abl [#]	15
1138	1114	VGNPEYLNTVQ	EGFR [#]	Shc [#]	
1172	1148	LDNPDYQQDFF	EGFR ^{10,#}	Shc ¹⁶ , Dok-R ¹³ , PTP-1B ⁷	7, 10, 13, 16
1197	1173	AENAEYLRVAP	EGFR ^{10,#}	Shc ^{16,#} , PLC γ ^{6,#} , SHP1 ¹⁷	6, 10, 15, 17

* Swiss-Prot entry EGFR_HUMAN (P00533) includes a 24 amino-acid N-terminal plasma-membrane targeting motif that is subsequently cleaved. Residue indices that are based on the Swiss-Prot entry are referred to as “Precursor index”, whereas indices that are based on the sequence without the targeting motif are referred to as “Processed index”

Predicted by Scansite (scansite.mit.edu)

\$ Not determined (ND) or not applicable (NA)

% Tyr974 does not require phosphorylation to associate with AP-2⁵

& Activation of this site is implicated in STAT1/3 activation, but there is no direct evidence of STAT1/3 binding to this site.

&& Ubiquitin moieties appended to activated EGFR complexes might function as docking sites for Eps15¹⁸.

Protein Abbreviations

Abl, Abelson's protein tyrosine kinase; AP-2, Adaptor protein 2; Cbl, Casitas b-lineage lymphoma; Dok-R, Downstream of kinase related protein; Eps15, Epidermal growth factor receptor pathway substrate 15; Grb2, Growth factor receptor binding protein 2; PI3K, Phosphatidylinositol-3-kinase; p85, 85 kDa regulator subunit of PI3K; PLC γ , Phospholipase C gamma; PTB1B, Protein tyrosine phosphatase-1B; RasGAP, Ras GTPase-activating protein; Shc, Src-homology and collagen-domain protein; SHP1, Src-homology-2 domain containing tyrosine phosphatase 1; SHP2, Src-homology-2 domain containing tyrosine phosphatase 2; Src, Sarcoma protein.

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