

# I. Protein Decay Rates

## MAP kinase pathway

Symbol	Alternative Names	Function	t <sub>1/2</sub> (basal)	t <sub>1/2</sub> (stim)	t <sub>1/2</sub> (used)	Reference
INSR	Insulin receptor	Receptor	20-40h ~7h 7-8h		7.5h	(Reed and Lane, 1980) (Reed <i>et al</i> , 1980) (Reed <i>et al</i> , 1981)
EGFR	EGF Receptor 1	Receptor	20h 8h ~12h	4h	12h	(Ware <i>et al</i> , 1997) (Gur <i>et al</i> , 2004) (Katz <i>et al</i> , 2002)
MET	HGF receptor	Receptor	~0.7h ~5h ~6h		5h	(Peschard <i>et al</i> , 2001) (Giordano <i>et al</i> , 1989) (Shattuck <i>et al</i> , 2007)
PDGFRB	PDGF receptor	Receptor	>>4h >>1h ~3h ~1h	0.5-2h 0.2h 0.75h ~0.5h	3.5h	(Sorkin <i>et al</i> , 1991) (Rosenkranz <i>et al</i> , 2000) (Keating and Williams, 1987) (Claesson-Welsh <i>et al</i> , 1987)
IGF1R	IGF-1 receptor	Receptor	~8h		8h	(Sehat <i>et al</i> , 2007)
PTPN2	TC-PTP	Phosphatase	~12h		12h	(Lu <i>et al</i> , 2007)
PTPN11	SHP-2	PPase Ras activator	~19h		19h	(Siewert <i>et al</i> , 1999)
PKRCA	PKC $\alpha$	Kinase, Ras activator	>24h >24h ~5h	0.8h 2h	26h	(Lee <i>et al</i> , 1996) (Woodgett and Hunter, 1987) (Young <i>et al</i> , 1987)
RAPGEF2	cnRasGEF	RasGEF	~10h		10h	(Pham and Rotin, 2001)
SOS1	mSos1	RasGEF	>18h		20h	(Nielsen <i>et al</i> , 1997)
SOS2	mSos2	RasGEF	~3h		3h	(Nielsen <i>et al</i> , 1997)
RASGRF2	Ras-GRF1	RasGEF	~8h		8h	(Gnesutta <i>et al</i> , 2001)
NRAS	N-Ras	MAP4K	~24h		24h	(Magee <i>et al</i> , 1987)
HRAS	H-Ras	MAP4K	~19h ~20h		19.5h	(Holstein <i>et al</i> , 2002) (Ullsh and Shih, 1984)
NF1	NF1	RasGAP	~24h	60-80h	24h	(Griesser <i>et al</i> , 1997)
RAF1	Raf-1	MAP3K	17.5h 11h		14.25h	(Schulte <i>et al</i> , 1995) (Schulte <i>et al</i> , 1995)
MAP3K2	Mekk-2	MAP3K	~1h		1h	(Yamashita <i>et al</i> , 2005)
MAP2K6	MKK6	MAP2K	>24h		24h	(Ambrosino <i>et al</i> , 2003)
MAP2K1/2	Mek1/2	MAP2K	>>6h		10h	(Abella <i>et al</i> , 2005)
MAPK3	Erk1	MAPK	>60h >20h >8h		22h	(Cho <i>et al</i> , 2002) (Coulombe <i>et al</i> , 2003) (Lingohr <i>et al</i> , 2006)
MAPK1	Erk2	MAPK	>60h >8h >8h		10h	(Cho <i>et al</i> , 2002) (Buschbeck <i>et al</i> , 2005) (Lingohr <i>et al</i> , 2006)
MAPK15	Erk7	MAPK	~1.7h		1.7h	(Kuo <i>et al</i> , 2004)
MAPK14	p38 $\alpha$	MAPK	>24h >20h		24h	(Ambrosino <i>et al</i> , 2003) (Buschbeck <i>et al</i> , 2005)
MAPK8	JNK1	MAPK	>7h		9h	(Shaullian and Karin, 1999)
DUSP1	MKP-1	MAPK PPase	2h  ~0.75h ~0.5h ~0.75h	~1h ~0.75h ~2h	0.75h	(Lin and Yang, 2006) (Torres <i>et al</i> , 2003) (Charles <i>et al</i> , 1992) (Brondello <i>et al</i> , 1999) (Brondello <i>et al</i> , 1995)
DUSP4	MKP-2	MAPK PPase	1.2h	0.75h	1h	(Katagiri <i>et al</i> , 2005) (Torres <i>et al</i> , 2003)
DUSP6	MKP-3	MAPK PPase	0.25h  2h 4h	0.75h 1h	0.9h	(Marchetti <i>et al</i> , 2004) (Torres <i>et al</i> , 2003) (Marchetti <i>et al</i> , 2005) (Katagiri <i>et al</i> , 2005)
DUSP10	MKP-5	MAPK PPase	4h		4h	(Katagiri <i>et al</i> , 2005)
DUSP16	MKP-7	MAPK PPase	1.5h		1.5h	(Katagiri <i>et al</i> , 2005)
DUSP8	M3/6	MAPK PPase	2h ~1.9h	1.9h	1.95h	(Theodosiou and Ashworth, 2002) (Johnson <i>et al</i> , 2000)
DUSP3	VHR	MAPK PPase	~0.5h		0.5h	(Rahmouni <i>et al</i> , 2006)
SPRY1	Sprouty	Inhibitor	>1h	~0.5h	0.5h	(Hall <i>et al</i> , 2003)