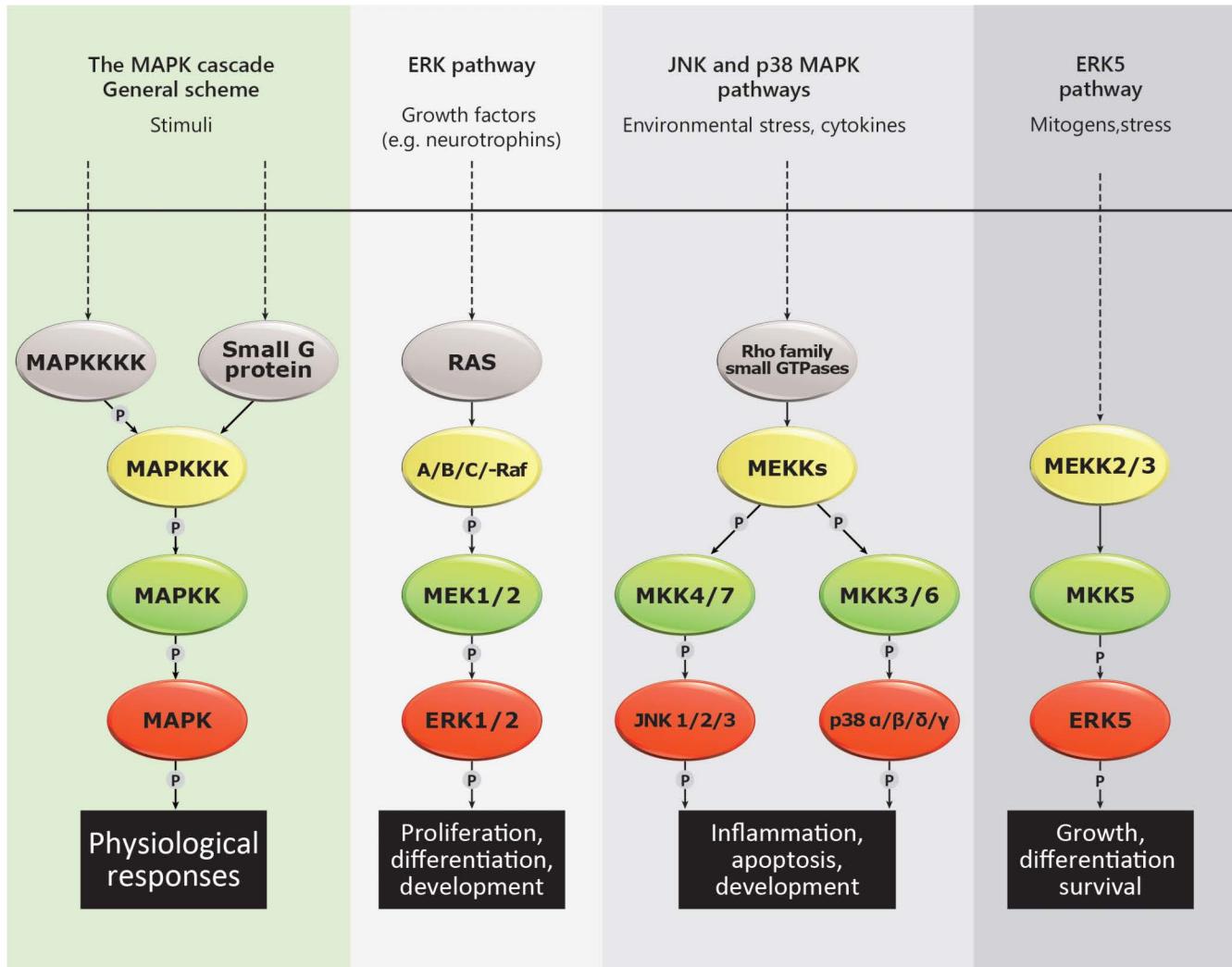
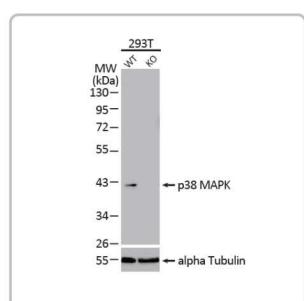
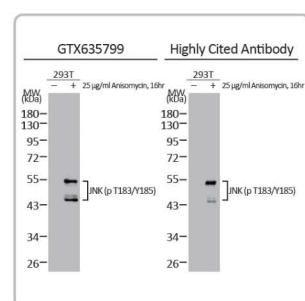
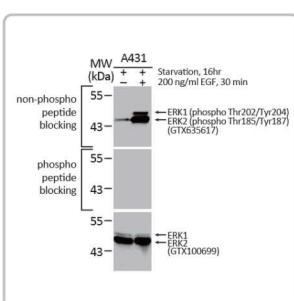
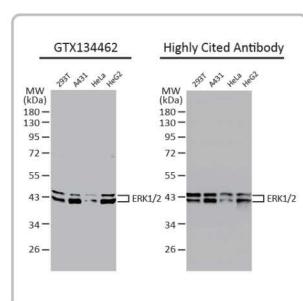


MAPK Pathway

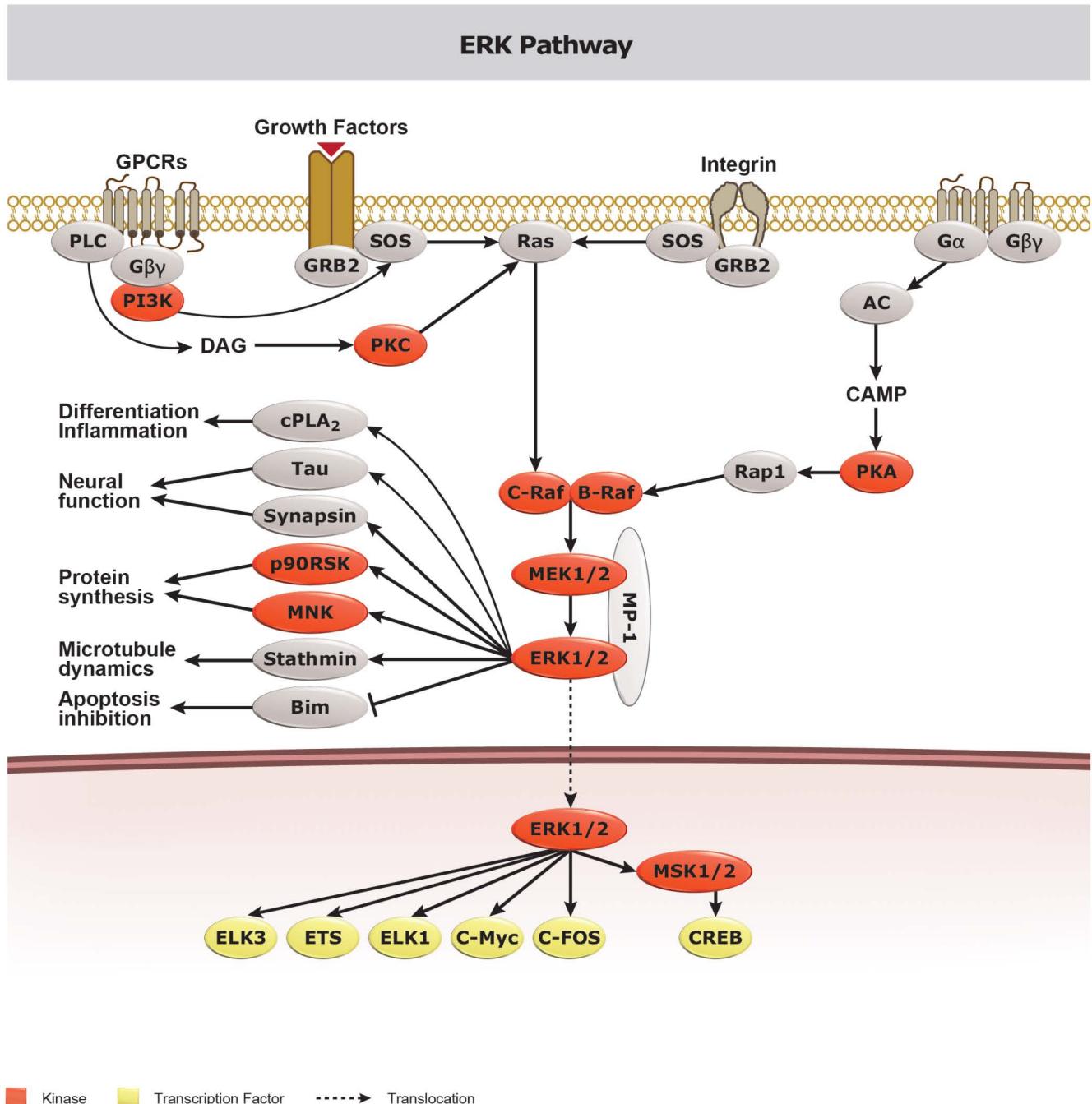
www.genetex.com



Highlighted Products

Recombinant Citation Support KO/KD Validation
Comparable Abs
Orthogonal Validation


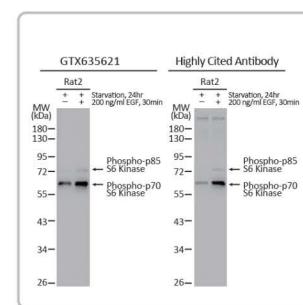
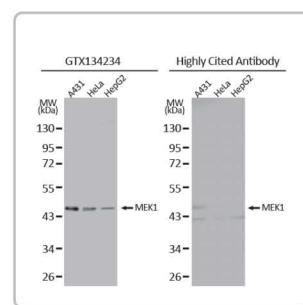
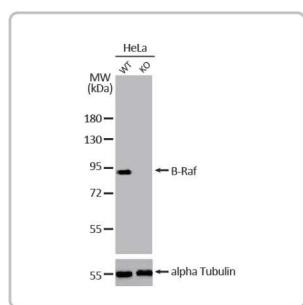
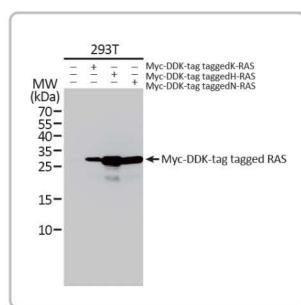
ERK Pathway



The extracellular signal-regulated kinase (ERK) pathway represents one of four mammalian mitogen-activated protein kinase (MAPK) systems responsible for reacting to various extracellular stimuli. While at least two of the other pathways respond primarily to various extracellular stress signals, ERK activation is predominately triggered by growth factors. These extracellular signals are transduced largely by tyrosine kinase receptor complexes that subsequently stimulate Ras to activate Raf, leading to MEK1/2 and then ERK1/2 activity. The ERK pathway is crucial for normal cellular proliferation, differentiation, and survival, with abnormal stimulation linked to human carcinogenesis.

Highlighted Products for ERK Pathway

Cat. No.	Product Name	Clonality	Reactivity	Applications
GTX100294	GRB2 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
GTX133774	SOS1 antibody	Rb pAb	Hu	WB, ICC/IF
GTX101723	SOS2 antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
GTX101983	RAP1 antibody [N2C3]	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P, IP
Activation	GTX101950	RAP1B antibody	Rb pAb	WB, IHC-P
	GTX116041	H-Ras antibody	Rb pAb	WB, ICC/IF, IHC-P, IP
	GTX31957	K-Ras antibody [AT2F8]	Ms mAb	WB, ICC/IF, FACS, ELISA
	GTX108598	N-RAS antibody	Rb pAb	WB, IHC-P
	GTX132480	RAS antibody	Rb pAb	WB, IHC-P
	GTX635362	RAS (G12D Mutant) antibody [HL10]	Rec Rb mAb	WB, ICC/IF, IHC-P
	GTX635623	RAS (G12V Mutant) antibody [HL169]	Rec Rb mAb	WB, IHC-P
	GTX101427	A-RAF antibody [C1C3]	Rb pAb	WB, ICC/IF, IHC-P
	GTX55078	A-RAF (phospho Tyr302) antibody	Rb pAb	WB
	GTX637085	B-Raf antibody [HL1606]	Rec Rb mAb	WB, IHC-P
MAPKKK	GTX100913	B-Raf antibody [N2C1], Internal	Rb pAb	WB, IHC-P, IP
	GTX33595	B-Raf (V600E Mutant Specific) antibody [RM8]	Rb mAb	WB, ICC/IF, IHC-P, ELISA
	GTX107763	Raf1 antibody [N3C3]	Rb pAb	WB, ICC/IF, IHC-P
	GTX134234	MEK1 antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX25612	MEK1 (phospho Thr292) antibody	Rb pAb	WB, ICC/IF, IHC-P, FACS
	GTX25613	MEK1 (phospho Ser298) antibody	Rb pAb	WB, ICC/IF, IHC-P, FACS
	GTX25615	MEK1 (phospho Thr386) antibody	Rb pAb	WB
	GTX630543	MEK2 antibody [GT3522]	Ms mAb	WB, ICC/IF
	GTX102186	MEK2 antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX50096	MEK2 (phospho Thr394) antibody	Rb pAb	WB, ICC/IF, IHC-P
MAPKK	GTX111338	MEK1 + MEK2 antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX630542	MEK1 + MEK2 antibody [GT1721]	Ms mAb	WB, ICC/IF
	GTX24750	MEK1 + MEK2 (phospho Ser222) antibody	Rb pAb	WB, ICC/IF
	GTX100699	ERK1 antibody	Rb pAb	WB
	GTX15780	ERK1 antibody [12D11]	Ms mAb	WB, ICC/IF, IHC-P, ChIP assay, IHC
	GTX113094	ERK2 antibody [N2C3]	Rb pAb	WB, IHC-P, IP
	GTX134462	ERK1/2 antibody	Rb pAb	WB
	GTX635617	ERK1 (phospho Thr202/Tyr204) + ERK2 (phospho Thr185/Tyr187) antibody [HL173]	Rec Rb mAb	WB, ICC/IF, IHC-P
	GTX132783	ERK1 (phospho Thr202/Tyr204) + ERK2 (phospho Thr185/Tyr187) antibody	Rb pAb	WB
	GTX50527	MSK1 antibody	Rb pAb	WB
Substrate	GTX112846	CREB antibody	Rb pAb	WB, ICC/IF, IHC-P, IHC-Fr
	GTX50691	ELK1 antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX114966	ELK3 antibody [N1C2]	Rb pAb	WB, ICC/IF, IHC-P
	GTX129846	c-Fos antibody	Rb pAb	WB, ICC/IF, IHC-Fr
	GTX628459	c-Myc antibody [GT168]	Ms mAb	WB, IHC-P, FACS, IP
	GTX103436	c-Myc antibody	Rb pAb	WB, ICC/IF, IHC-P, IHC-Fr, IP, ChIP assay
	GTX100639	ETS1 antibody	Rb pAb	WB
	GTX111050	p90 RSK1 antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX105543	RSK2 antibody	Rb pAb	WB, IHC-P
	GTX111071	RSK3 antibody [N2C1], Internal	Rb pAb	WB
Substrate	GTX107562	p70 S6K antibody	Rb pAb	WB, ICC/IF, IHC-P
	GTX635621	p70 S6K (phospho Thr421/Ser424) antibody [HL129]	Rec Rb mAb	WB, IHC-P



RAS antibody
(GTX132480)

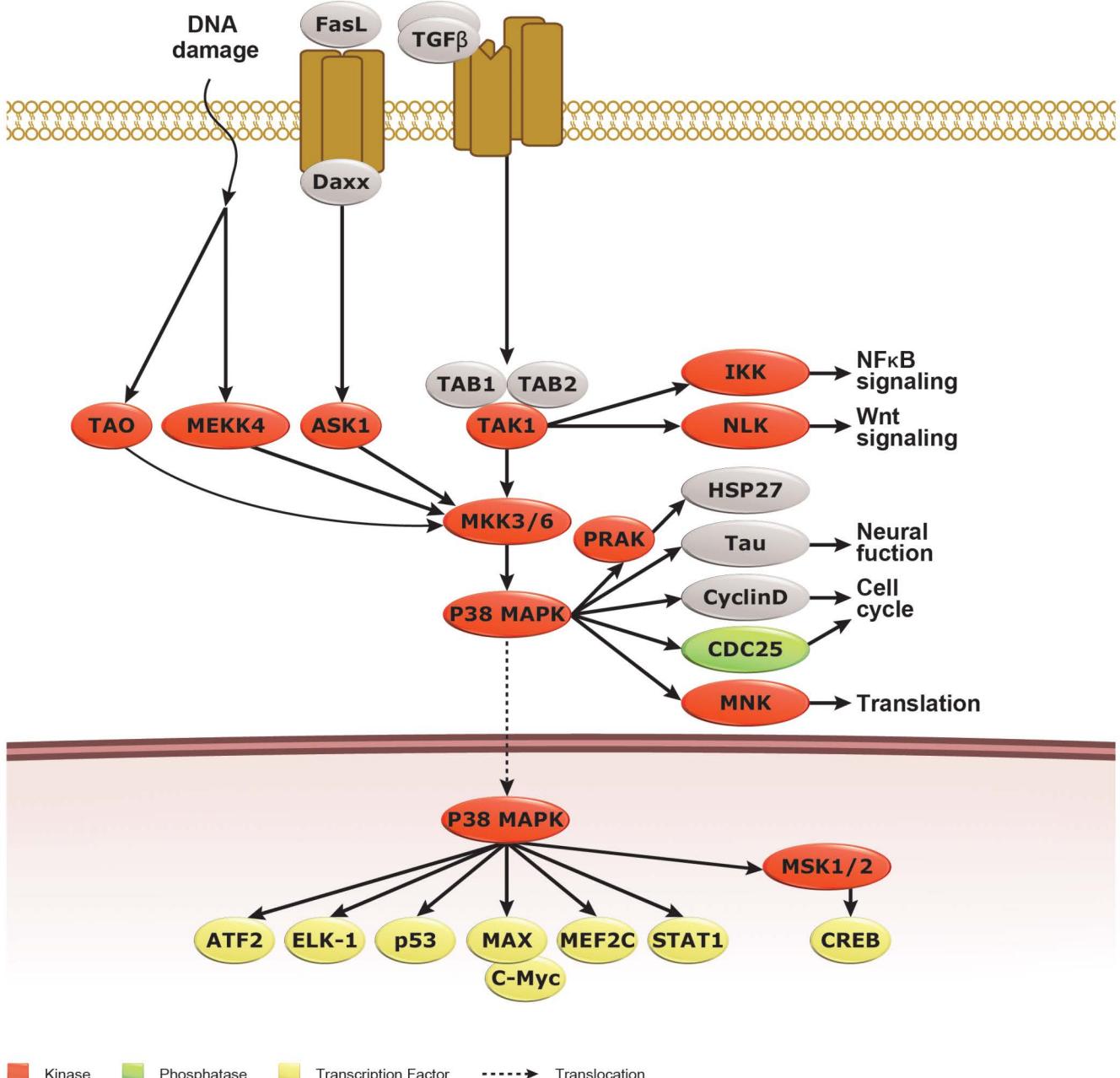
B-Raf antibody [HL1606]
(GTX637085)

MEK1 antibody
(GTX134234)

p70 S6K (phospho Thr421/Ser424)
antibody [HL129] (GTX635621)

p38 MAPK Pathway

p38 MAPK Pathway

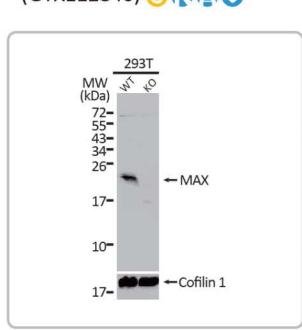
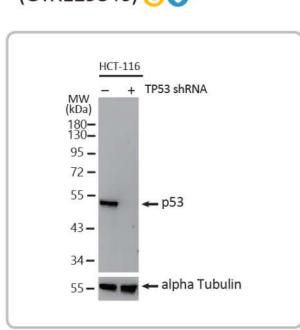
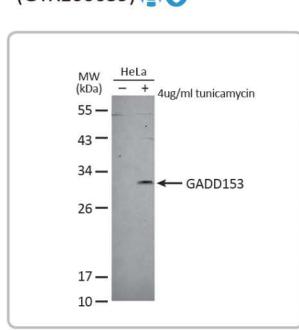
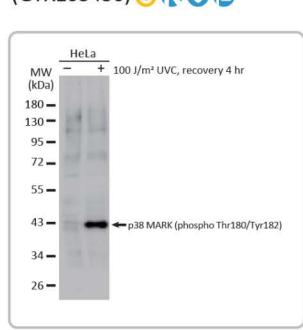
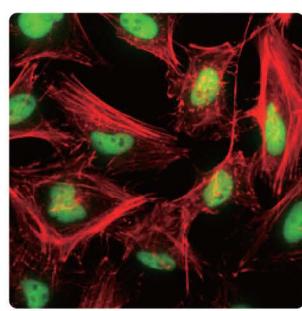
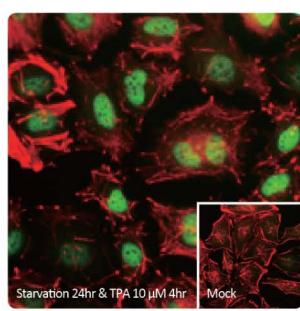
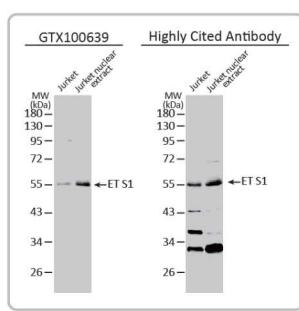
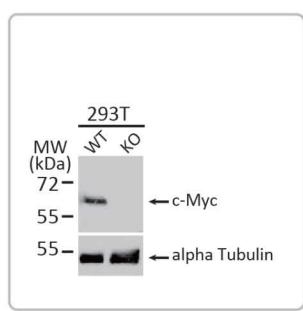


Legend: Kinase (red oval), Phosphatase (green oval), Transcription Factor (yellow oval), Translocation (dashed arrow).

The p38 MAPK pathway is one of four MAPK systems in mammals that mediate cellular responses to external stimuli including stress and cytokines, among many others. The p38 MAPKs (α , β , γ , and δ), which are situated at the end of the canonical three-tier kinase cascade that is characteristic of these MAPK pathways, are intimately involved in fundamental cellular processes such as proliferation, differentiation, apoptosis, and metabolism. They also appear to be central players in many clinically important conditions, including autoimmunity, neurodegenerative disease, and cardiac ischemia.

Highlighted Products for p38 MAPK Pathway

	Cat. No.	Product Name	Clonality	Reactivity	Applications
Activation	GTX134588	CDC42 antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX100761	Rac1 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX113262	Rac2 antibody [N1C3]	Rb pAb	Hu,Ms	WB, IHC-P
MAPKKK	GTX60456	ASK1 antibody [2E4]	Ms mAb	Hu	WB, ICC/IF, IHC-P, FACS, ELISA
	GTX107921	ASK1 antibody [C2C3-2], C-term	Rb pAb	Hu,Ms	WB, IHC-P
	GTX133878	ASK1 (phospho Ser966) antibody	Rb pAb	Hu	WB
	GTX134664	TAK1 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF
	GTX55449	TAK1 (phospho Thr184) antibody	Rb pAb	Hu	WB
	GTX55383	TAK1 (phospho Thr187) antibody	Rb pAb	Ms	WB
MAPKK	GTX107529	MEK3 antibody [N1C3]	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX50203	MEK3 (phospho Ser189) antibody	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX60396	MEK6 antibody [3H12C8]	Ms mAb	Hu,Ms	WB, ICC/IF, FACS, ELISA
	GTX107445	MEK6 antibody [N1C3]	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX50204	MEK6 (phospho Ser207) antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
MAPK	GTX84149	p38 beta antibody [1C2]	Ms mAb	Hu	WB, ICC/IF
	GTX111388	p38 beta antibody [N3C3]	Rb pAb	Hu	WB
	GTX84148	p38 gamma antibody [10E1]	Ms mAb	Hu	WB, IHC-P, FACS
	GTX635797	p38 MAPK antibody [HL1006]	Rec Rb mAb	Hu,Ms,Rat	WB
	GTX110720	p38 MAPK antibody [N1C3-2]	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX133881	p38 MAPK (phospho Tyr182) antibody	Rb pAb	Hu	WB
Substrate	GTX133460	p38 MAPK (phospho Thr180/Tyr182) antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX24822	p38 MAPK (phospho Thr180/Tyr182) antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P, FACS
	GTX100062	ATF1 antibody	Rb pAb	Hu	WB
	GTX130420	ATF1 (phospho Ser63) antibody	Rb pAb	Hu,Ms	WB
	GTX100224	ATF2 antibody	Rb pAb	Hu	IHC-P
	GTX112827	GADD153 antibody [N1C3]	Rb pAb	Hu,Ms,Rat	WB, IHC-P, IHC
	GTX113492	MAX antibody	Rb pAb	Hu	WB, IP
	GTX70214	p53 antibody [DO1]	Ms mAb	Hu,Ms	WB, ICC/IF, IHC-P, IHC-Fr, FACS, IP, ELISA
	GTX102965	p53 antibody	Rb pAb	Hu,Ms,Zfsh	WB, ICC/IF, IHC-P, IP, ChIP assay
	GTX105433	MEF2C antibody	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P, IHC-Fr, IP, IHC
	GTX111134	MEF2C antibody	Rb pAb	Ms,Rat	WB, ICC/IF, IHC-Fr
	GTX134371	STAT1 antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX101145	HSP27 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P, FACS, IP



p38 MAPK (phospho Thr180/Tyr182) antibody (GTX133460)

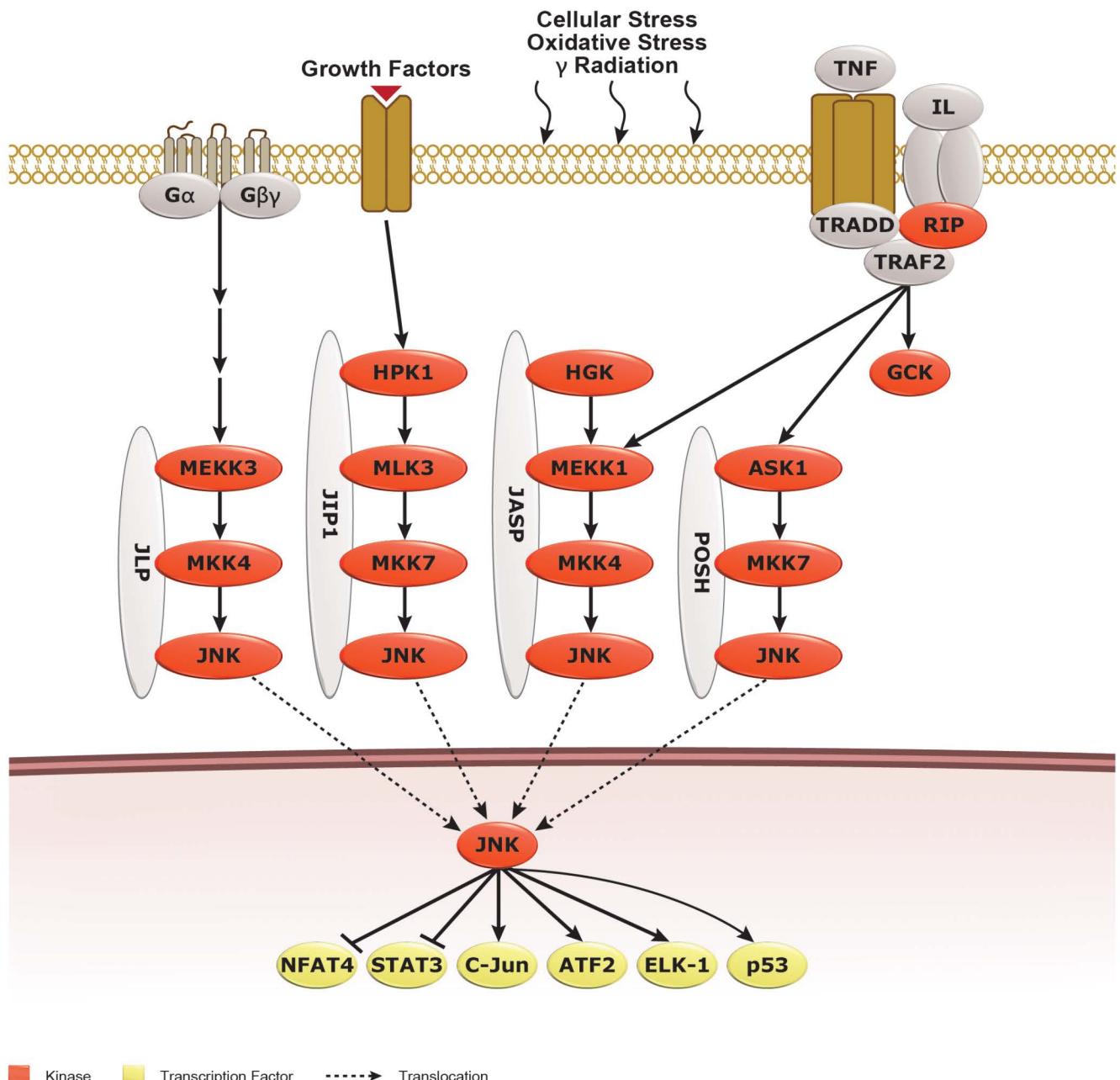
GADD153 antibody [N1C3] (GTX112827)

p53 antibody [DO1] (GTX70214)

MAX antibody (GTX113492)

JNK Pathway

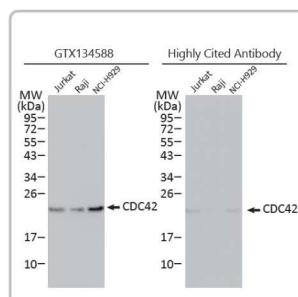
JNK Pathway



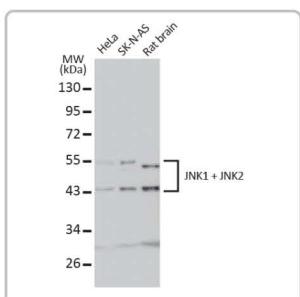
The c-Jun-N-terminal kinase (JNK) pathway is one of four major mitogen-activated protein kinase (MAPK) pathways in mammals. Receptor-initiated signals generated by cell exposure to stress, cytokines, pathogens, toxins, or drugs activate the JNK pathway through MAP4Ks and the three-level (MAP3K / MAP2K / MAPK) kinase backbone that culminates in activation of the MAPK JNKs. Activated JNKs target at least 50 substrates including transcription factors and mitochondrial proteins. Regulation of these substrates by the JNKs directly impacts pivotal cellular processes involving cell fate, inflammation, metabolism, and carcinogenesis.

Highlighted Products for JNK Pathway

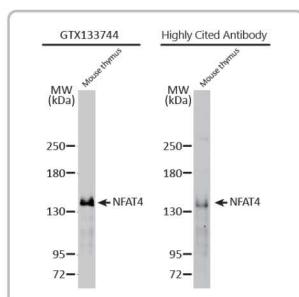
	Cat. No.	Product Name	Clonality	Reactivity	Applications
MAPKKKK	GTX104708	MAP4K1 antibody [N1], N-term	Rb pAb	Hu	WB, IHC-P
	GTX32713	MAP4K3 antibody	Rb pAb	Hu,Ms,Rat	WB, IHC-P
	GTX116008	MAP4K4 antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
	GTX108816	MAP4K6 antibody [C2C3-2], C-term	Rb pAb	Hu	WB, ICC/IF, IHC-P
MAPKKK	GTX46204	MAP3K1 antibody, C-term	Rb pAb	Hu	WB
	GTX34816	MAP3K1 antibody [2F6]	Ms mAb	Hu	WB, IHC-P
	GTX55333	MAP3K1 (phospho Thr1400) antibody	Rb pAb	Hu	WB, IHC-P
	GTX88318	MAP3K6 antibody, C-term	Gt pAb	Rat	WB
	GTX102711	MAP3K8 antibody [N3C3]	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX55334	MAP3K8 (phospho Ser400) antibody	Rb pAb	Hu	IHC-P
	GTX124127	DLK/MAP3K12 antibody	Rb pAb	Hu,Ms,Rat	WB, IHC-P, IHC-Fr
	GTX111101	MAP3K13 antibody	Rb pAb	Hu	WB, ICC/IF
	GTX102471	MAP3K14 antibody [N1N2], N-term	Rb pAb	Hu	WB
	GTX109419	MAP3K14 antibody	Rb pAb	Hu,Ms	ICC/IF, IHC-P
MAPKK	GTX46229	MAP3K15 antibody, C-term	Rb pAb	Hu	WB
	GTX11792	MEKK2 antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX60504	MEKK2 antibody [4B4]	Ms mAb	Hu,Ms	WB, ICC/IF, ELISA
	GTX107945	MEKK3 antibody [N3C3]	Rb pAb	Hu,Ms	WB, IHC-P
	GTX55270	MEKK4 antibody	Rb pAb	Hu,Ms,Rat,Plant	WB, IHC-P
	GTX60399	SEK1 / MKK4 antibody [5H4]	Ms mAb	Hu	WB, IHC-P, FACS, ELISA
	GTX84162	SEK1 / MKK4 antibody [8A8]	Ms mAb	Hu,Dog	WB, ICC/IF, IHC-P, FACS, IP
MAPK	GTX55115	SEK1 / MKK4 (phospho Ser80) antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
	GTX32260	SEK1 / MKK4 (phospho Thr261) antibody	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX60522	MEK7 antibody [4E5]	Ms mAb	Hu	WB, ICC/IF, IHC-P, FACS, ELISA
	GTX24762	MEK7 (phospho Ser271/Thr275) antibody	Rb pAb	Hu,Rat	WB
	GTX52360	JNK antibody	Rb pAb	Hu,Ms,Pig	WB, ICC/IF
	GTX34387	JNK (phospho Thr183) antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX52328	JNK (phospho Tyr185) antibody	Rb pAb	Hu,Ms,Rat	WB, IHC
	GTX635799	JNK (phospho Thr183/Tyr185) antibody [HL1008]	Rec Rb mAb	Hu,Ms,Rat	WB, IHC-P
	GTX133934	JNK (phospho Thr183/Tyr185) antibody	Rb pAb	Hu,Ms	WB, IHC-P
	GTX84143	JNK1 antibody [1C2]	Ms mAb	Hu,Ms	WB, ICC/IF
Substrate	GTX60600	JNK1 antibody [1E5]	Ms mAb	Hu,Ms,Rat	WB, FACS, ELISA
	GTX105523	JNK2 antibody [N1C3]	Rb pAb	Hu,Ms,Rat,P. xylostella	WB, ICC/IF, IHC-P, IHC
	GTX83031	JNK3 antibody [10E4A4]	Ms mAb	Hu,Ms	WB, ICC/IF, ELISA
	GTX133806	JNK1 + JNK2 antibody	Rb pAb	Hu,Rat	WB, IHC-P
	GTX02824	JNK1 + JNK3 antibody [GT1227]	Rec Rb mAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX112974	c-Jun antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
	GTX134395	c-Jun antibody	Rb pAb	Hu,Ms	WB, ICC/IF
	GTX133744	NFAT4 antibody	Rb pAb	Hu,Ms	WB
	GTX636400	STAT3 antibody [HL1134]	Rec Rb mAb	Hu,Ms,Rat	WB
	GTX108630	STAT3 antibody	Rb pAb	Hu,Zfsh	WB, FACS, IP
MAK	GTX104616	STAT3 antibody [C3], C-term	Rb pAb	Hu,Ms,Rat,Plant	WB, ICC/IF, IHC-P
	GTX636938	STAT3 (phospho Tyr705) antibody [HL1464]	Rec Rb mAb	Hu	WB
	GTX118000	STAT3 (phospho Tyr705) antibody	Rb pAb	Hu,Ms,Zfsh	WB, ICC/IF, IHC-P, FACS
	GTX113273	STAT6 antibody	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P, IP



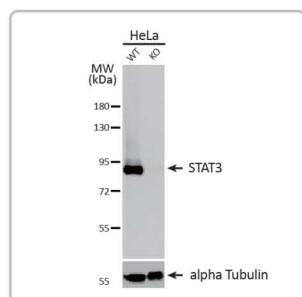
CDC42 antibody (GTX134588)



JNK1 + JNK2 antibody (GTX133806)



NFAT4 antibody (GTX133744)



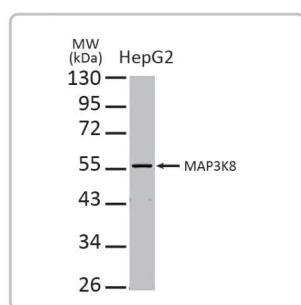
STAT3 antibody [C3], C-term (GTX104616)

Highlighted Products for ERK5 Pathway

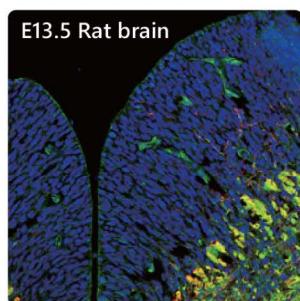
	Cat. No.	Product Name	Clonality	Reactivity	Applications
Activation	GTX134412	Src antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX134837	Src (phospho Tyr416) antibody	Rb pAb	Ms	WB
	GTX133473	Src (phospho Tyr527) antibody	Rb pAb	Hu,Ms,Rat	WB
	GTX112567	SRC1 antibody	Rb pAb	Hu	WB
	GTX113869	SRC3 antibody [N1N2], N-term	Rb pAb	Hu	WB, ICC/IF, IHC-P
MAPKKK	GTX60504	MEKK2 antibody [4B4]	Ms mAb	Hu,Ms	WB, ICC/IF, ELISA
	GTX107945	MEKK3 antibody [N3C3]	Rb pAb	Hu,Ms	WB, IHC-P
MAPKK	GTX111129	MEK5 antibody [N1N3]	Rb pAb	Hu	WB, IHC-P
	GTX50845	MEK5 (phospho Ser311/ Thr315) antibody	Rb pAb	Ms,Rat	WB
MAPK	GTX55608	ERK5 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX25686	ERK5 (phospho Thr218/Tyr220) antibody	Rb pAb	Hu,Ms,Primate	WB, ICC/IF, IP

Scaffold Proteins

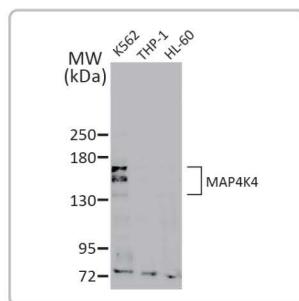
	Cat. No.	Product Name	Clonality	Reactivity	Applications
Plasma Membrane Peripheral Scaffold	GTX56241	KSR1 antibody	Rb pAb	Hu,Ms	WB, ICC/IF, IHC-P
	GTX66673	KSR2 antibody	Rb pAb	Hu,Ms,Rat	WB, IHC-P
	GTX00764	IQGAP1 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX133750	IQGAP1 antibody	Rb pAb	Hu	WB
	GTX101105	Prohibitin antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P, IP
	GTX102100	Prohibitin 2 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX31962	CNKSR1 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, ELISA
	GTX56090	CNK2 antibody	Rb pAb	Hu,Ms,Rat	WB, IHC-P
Focal Adhesion Scaffold	GTX633769	Paxillin antibody [GT7612]	Ms mAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P
	GTX125891	Paxillin antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF, IHC-P, IP
Early Endosomes Scaffold	GTX64318	beta Arrestin 1 antibody [GT1126]	Rec Rb mAb	Hu,Ms,Rat	WB, IHC-P, FACS
	GTX64830	Beta Arrestin 2 antibody	Rb pAb	Hu,Ms,Rat	WB, ICC/IF
Late Endosomes	GTX111032	MP1 antibody [N1C3]	Rb pAb	Hu,Ms,Rat	WB, IHC-P
Golgi Apparatus	GTX121503	IL17 Receptor D antibody	Rb pAb	Hu,Rat	WB, ICC/IF, IHC-P
	GTX100604	JIP1 antibody	Rb pAb	Hu,Ms	WB, IHC-P
JNK Signaling Scaffold	GTX111162	JIP2 antibody [C1C3]	Rb pAb	Hu,Ms	WB, ICC/IF
	GTX87530	JIP3 antibody	Rb pAb	Hu	WB, ICC/IF
	GTX24545	JIP3 antibody, N-term	Gt pAb	Ms	IHC-P
	GTX81548	JLP antibody, N-term	Rb pAb	Hu	WB, IHC-P
	GTX81547	JLP antibody, Internal	Rb pAb	Hu	WB, IHC-P
	GTX70991	DUSP22 antibody	Rb pAb	Hu,Rb,Bov,Mk,Hrs	IHC-P
	GTX112048	DUSP22 antibody [N1C3]	Rb pAb	Hu	WB
	GTX116687	SH3MD2 antibody [N3C1], Internal	Rb pAb	Hu	WB, IHC-P



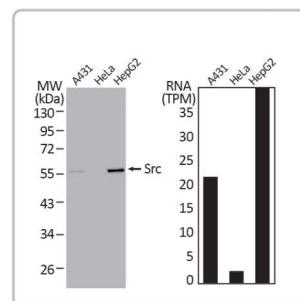
MAP3K8 antibody [N3C3]
(GTX102711)



DLK/MAP3K12 antibody
antibody (GTX124127)



MAP4K4 antibody
(GTX116008)



Src antibody
(GTX134412)

