

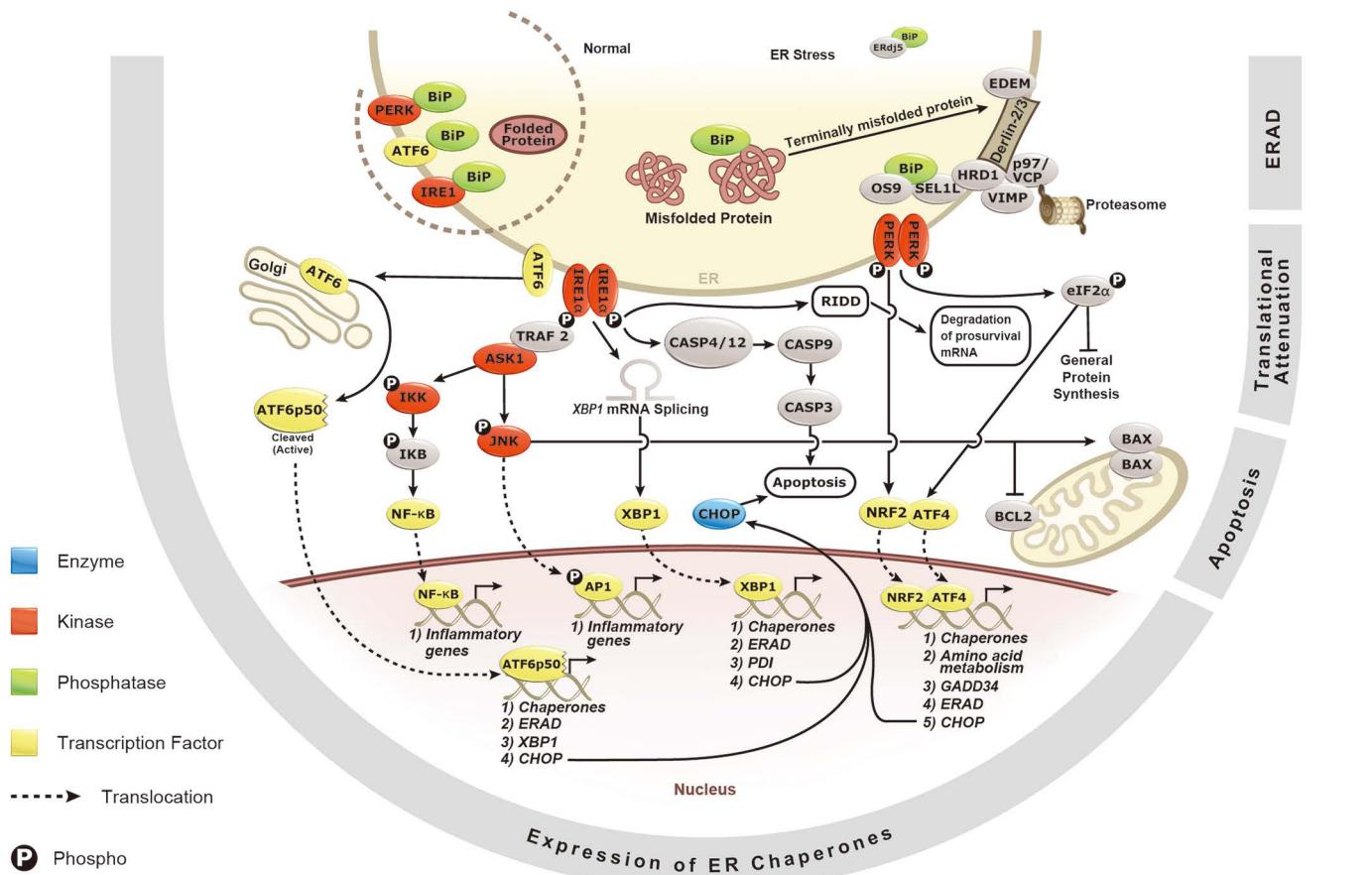
# Endoplasmic Reticulum Stress

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Our Antibodies

Accelerated Discovery

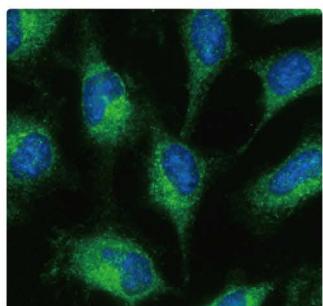


Endoplasmic reticulum (ER) stress is triggered when the accumulation of unfolded or misfolded proteins is detected by various sensors, including PERK, IRE1, and ATF6. This process is referred to as the unfolded protein response (UPR). Under conditions of ER stress, general protein synthesis is attenuated by PERK-mediated phosphorylation of eIF2 $\alpha$ , and the transcriptional induction of ER chaperones by activated ATF6 and IRE1-regulated XBP1 is triggered to refold the unfolded proteins. UPR also leads to the elimination of misfolded proteins through ER-associated degradation (ERAD). In conditions of severe ER stress, the robust expression of CHOP triggers apoptosis. ER stress is associated with a variety of conditions including cancer, diabetes, inflammatory diseases, and neurodegenerative disorders.

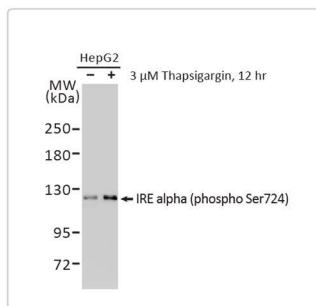
## Highlighted Products

 Citation Support

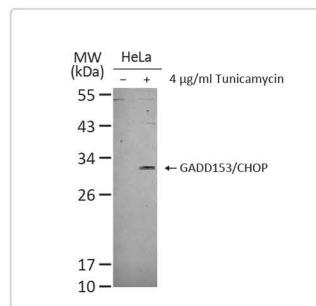
 KO/KD Validation

 Orthogonal Validation


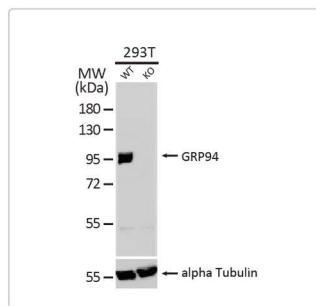
Grp78 antibody (GTX113340)



IRE1 alpha (phospho Ser724) antibody (GTX132808)

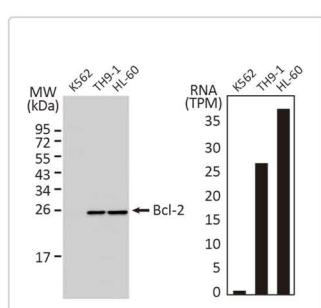


GADD153 antibody [N1C3] (GTX112827)

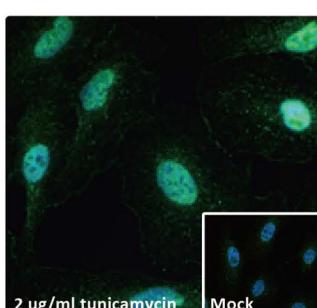


GRP94 antibody (GTX103232)

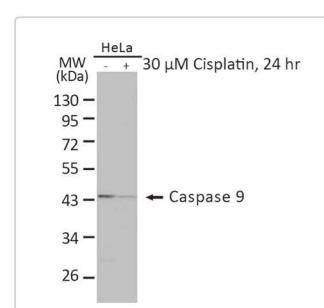
Cat. No.	Product Name	Clonality	Reactivity	Applications
GTX14380	ASK1 (phospho Ser83) antibody	Rb pAb	Hu	WB, IHC-P, ELISA
GTX50228	ASK1 (phospho Ser83) antibody	Rb pAb	Hu, Ms	WB, IHC-P
GTX50229	ASK1 (phospho Ser966) antibody	Rb pAb	Hu, Ms, Mk	WB, IHC-P
GTX60456	ASK1 antibody [2E4]	Ms mAb	Hu	WB, ICC/IF, IHC-P, FACS, ELISA
GTX107921	ASK1 antibody [C2C3-2], C-term	Rb pAb	Hu, Ms	WB, IHC-P
GTX50127	ATF4 (phospho Ser245) antibody	Rb pAb	Hu	WB, IHC-P
GTX101943	ATF4 antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF
GTX30070	ATF4 antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IP
GTX31729	ATF6 antibody	Rb pAb	Hu, Ms	WB, ICC/IF, IHC-P, ELISA
GTX104820	ATF6 antibody	Rb pAb	Hu, Ms	WB
GTX00687	ATF6 antibody [1-7]	Ms mAb	Hu	WB, ICC/IF, IP
GTX87772	ATF6B antibody	Rb pAb	Hu	WB
GTX55313	Bax (phospho Thr167) antibody	Rb pAb	Hu	ICC/IF
GTX32465	Bax antibody	Rb pAb	Hu, Ms, Rat, Chk	WB, ICC/IF, IHC-P
GTX109683	Bax antibody [N1N2], N-term	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IP
GTX32372	Bcl-2 (phospho Ser87) antibody	Rb pAb	Hu	WB, IHC-P
GTX21908	Bcl-2 (phospho Thr56) antibody	Rb pAb	Hu	WB, IHC-P
GTX55105	Bcl-2 (phospho Thr69) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX34425	Bcl-2 antibody [100/D5]	Ms mAb	Hu	WB, ICC/IF, IHC-P, FACS
GTX100064	Bcl-2 antibody [N1N2], N-term	Rb pAb	Hu, Ms, Rat, Zfsh	WB, ICC/IF, IHC-P
GTX109669	Calnexin antibody [C3], C-term	Rb pAb	Hu, Ms, Rat, Sheep	WB, ICC/IF, IHC-P, IP
GTX629976	Calnexin antibody [GT1563]	Ms mAb	Hu, Ms, Rat	WB, ICC/IF, IP
GTX28117	Caspase 12 antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P, ELISA
GTX132298	Caspase 12 antibody	Rb pAb	Hu	WB
GTX74429	Caspase 12 antibody, N-term	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX22302	Caspase 3 (active) antibody	Rb pAb	Hu, Ms, Rat, Frt	WB, ICC/IF, IHC-P, IHC-Fr, IHC
GTX86952	Caspase 3 (cleaved Asp175) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P, ELISA
GTX01201	Caspase 3 (cleaved Asp28) antibody [SR01-02]	Rb mAb	Hu	WB, IHC-P
GTX110543	Caspase 3 antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IHC-Fr, IP
GTX49360	Caspase 3 p17 subunit antibody	Rb pAb	Hu	WB, IHC-P
GTX134552	Caspase 4 antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX113639	Caspase 4 antibody	Rb pAb	Hu	WB, IHC-P
GTX22324	Caspase 9 (active) antibody	Rb pAb	Hu	WB, ICC/IF, IP
GTX86945	Caspase 9 (cleaved Asp315) antibody	Rb pAb	Hu	WB, IHC-P
GTX132331	Caspase 9 (cleaved Asp330) antibody	Rb pAb	Hu, Rat	WB
GTX86912	Caspase 9 (cleaved Asp353) antibody	Rb pAb	Hu, Rat	WB, IHC-P
GTX55305	Caspase 9 (phospho Thr125) antibody	Rb pAb	Hu	WB, IHC-P
GTX31643	Caspase 9 antibody	Rb pAb	Hu	WB, ICC/IF, IP, ELISA
GTX112888	Caspase 9 antibody [N2C3]	Rb pAb	Hu, Rat	WB, IHC-P, IP
GTX111367	DNAJC3 antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
GTX64912	DNAJC10 antibody	Rb pAb	Hu	WB



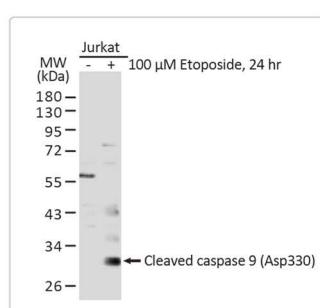
Bcl-2 antibody [N1N2], N-term (GTX100064)



ATF4 antibody (GTX101943)

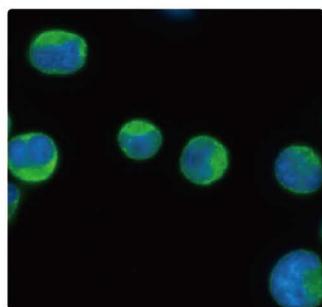


Caspase 9 antibody [N2C3] (GTX112888)

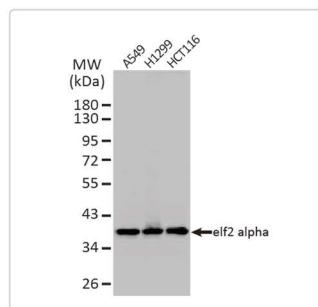


Caspase 9 (cleaved Asp330) antibody (GTX132331)

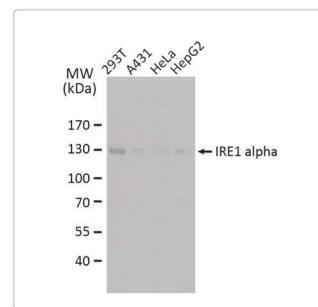
Cat. No.	Product Name	Clonality	Reactivity	Applications
GTX130500	EDEM1 antibody	Rb pAb	Hu	WB
GTX50342	eIF2 alpha (phospho Ser49) antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
GTX50300	eIF2 alpha (phospho Ser51) antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P
GTX24837	eIF2 alpha (phospho Ser52) antibody	Rb pAb	Hu, Ms, Rat, Yeast, Dm, Cat, Chk, C. elegans, Primate	WB, ICC/IF, IHC (Free Floating)
GTX25369	eIF2 alpha antibody [EIF2a]	Ms mAb	Hu, Ms, Rat, Primate	WB, ICC/IF, IHC-P, FACS
GTX101241	eIF2 alpha antibody [N1C3]	Rb pAb	Hu, Ms, Rat	WB, ICC/IF
GTX11419	GADD153 antibody [9C8]	Ms mAb	Hu, Ms, Rat, Rb	WB, ICC/IF, IHC-P, IHC-Fr, IP
GTX112827	GADD153 antibody [N1C3]	Rb pAb	Hu, Ms, Rat	WB, IHC-P, IHC
GTX115747	GADD34 antibody [N1N3]	Rb pAb	Hu	WB
GTX74479	GADD34 antibody, C-term	Gt pAb	Hu	WB, ICC/IF, IHC-P, FACS
GTX113340	Grp78 antibody	Rb pAb	Hu, Ms, Rat, Chk	WB, ICC/IF, IHC-P
GTX48633	Grp78 antibody	Rb pAb	Hu, Ms, Rat, Zfsh, Sheep, Dm, Bov, Chk, C. elegans, Primate	WB, ICC/IF, FACS
GTX102580	Grp78 antibody [N2C1], Internal	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IP
GTX79049	GRP94 (phospho Ser254) antibody	Rb pAb	Hu, Ms	WB
GTX103232	GRP94 antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IP
GTX31955	GRP94 antibody [AT94B9]	Ms mAb	Hu	WB, ICC/IF, FACS, ELISA
GTX89299	GRP94 antibody, Internal	Gt pAb	Hu, Ms	WB, IHC-P, PLA
GTX52310	IKK alpha (phospho Ser176) + IKK beta (phospho Ser177) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX17943	IKK alpha (phospho Ser176/Ser180) antibody	Rb pAb	Hu	WB, ICC/IF, FACS, ChIP assay
GTX55094	IKK alpha (phospho Thr23) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX132964	IKK alpha antibody	Rb pAb	Hu	WB
GTX12138	IKK alpha antibody [14A231]	Ms mAb	Hu, Ms, Rat, Primate	WB, ICC/IF, IHC-P, IHC-Fr, FACS, IP, ChIP assay
GTX32199	IKK beta (phospho Tyr188) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX55109	IKK beta (phospho Tyr199) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX105690	IKK beta antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P
GTX107970	IKK beta antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P, IP
GTX12139	IKK beta antibody [10AG2]	Ms mAb	Hu, Ms	WB, ICC/IF, IHC-P, FACS, IP, MS
GTX111350	IKK epsilon antibody [C2C3], C-term	Rb pAb	Hu	WB, ICC/IF, IHC-P
GTX32282	IKK gamma (phospho Ser31) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX134550	IKK gamma (phospho Ser376) antibody	Rb pAb	Hu	WB, IHC-P
GTX32283	IKK gamma (phospho Ser85) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
GTX35211	IKK gamma antibody	Rb pAb	Hu, Ms	WB, IP
GTX65841	IKK gamma antibody	Rb pAb	Hu, Ms, Rat, Mk	WB, ICC/IF, IHC-P
GTX132808	IRE1 alpha (phospho Ser724) antibody	Rb pAb	Hu, Ms, Rat	WB
GTX30005	IRE1 alpha antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, ELISA
GTX113682	IRE1 alpha antibody [N1N2], N-term	Rb pAb	Hu, Chk	WB, IP
GTX87426	IRE1 beta antibody	Rb pAb	Hu	ICC/IF, IHC-P



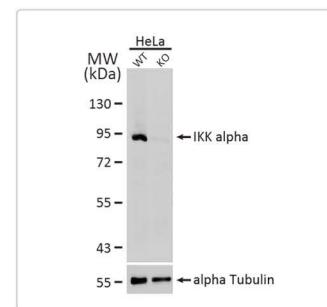
IKK beta antibody  
(GTX107970) C P



eIF2 alpha antibody [N1C3]  
(GTX101241) C

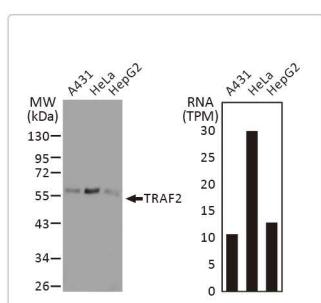


IRE1 alpha antibody [N1N2], N-term  
(GTX113682) C

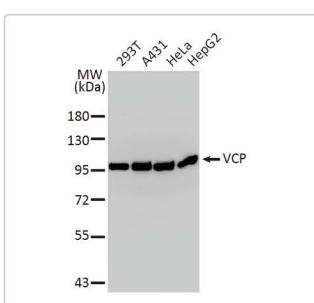


IKK alpha antibody  
(GTX132964) C K

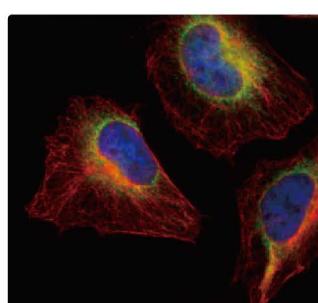
Cat. No.	Product Name	Clonality	Reactivity	Applications
<span style="color: red;">C</span> GTX24821	JNK (phospho Thr183/Tyr185) antibody	Rb pAb	Hu, Ms, Rat, Pig, Primate	WB, ICC/IF, IHC-P, IP, IHC
<span style="color: red;">C</span> GTX52360	JNK antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF
<span style="color: blue;">C</span> GTX133806	JNK1 + JNK2 antibody	Rb pAb	Hu, Rat	WB, IHC-P
<span style="color: blue;">C</span> GTX105523	JNK2 antibody [N1C3]	Rb pAb	Hu, Ms, Rat, <i>P. xylostella</i>	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX101557	mTOR antibody [C3], C-term	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IP, ChIP assay
<span style="color: blue;">C</span> GTX630198	mTOR antibody [GT649]	Ms mAb	Hu, Ms	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX132803	mTOR (phospho Ser2448) antibody	Rb pAb	Hu, Ms, Rat	WB, IHC-P
<span style="color: blue;">C</span> GTX101150	NFKB p100	Rb pAb	Hu, Ms	WB, IP
<span style="color: blue;">C</span> GTX54550	NFKB p100 (phospho Ser866) antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX110585	NFKB p105	Rb pAb	Hu, Ms	WB, ICC/IF, IHC-P, ChIP assay, IHC
<span style="color: blue;">C</span> GTX35196	NFKB p105/p50 antibody	Rb pAb	Hu, Ms	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX107678	NFKB p65	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IP, EMSA
<span style="color: blue;">C</span> GTX20307	NFKB p65 (acetyl Lys218) antibody	Rb pAb	Hu, Ms	WB
<span style="color: red;">C</span> GTX86963	NFKB p65 (acetyl Lys310) antibody	Rb pAb	Hu, Ms, Mk	WB, ICC/IF, IHC-P, IHC
<span style="color: blue;">C</span> GTX54672	NFKB p65 (phospho Ser276) antibody	Rb pAb	Hu, Ms, Rat, Pig	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX54673	NFKB p65 (phospho Ser468) antibody	Rb pAb	Hu, Ms	WB
<span style="color: red;">C</span> GTX50254	NFKB p65 (phospho Ser529) antibody	Rb pAb	Hu	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX133899	NFKB p65 (phospho Ser536) antibody	Rb pAb	Hu	WB
<span style="color: blue;">C</span> GTX103322	NRF2 antibody [N2C2], Internal	Rb pAb	Hu, Ms, Rat, Zfsh, Allg, Plant, Bird	WB, ICC/IF, IHC-P, IP, ChIP assay, IHC
<span style="color: blue;">C</span> GTX110720	p38 MAPK antibody [N1C3-2]	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P
<span style="color: blue;">C</span> GTX133460	p38 MAPK (phospho Thr180/Tyr182) antibody	Rb pAb	Hu, Ms, Rat	WB
<span style="color: red;">C</span> GTX101468	PDI antibody [N1N3]	Rb pAb	Hu, Ms	WB, ICC/IF, IHC-P, EM
<span style="color: red;">C</span> GTX22792	PDI antibody [RL90]	Ms mAb	Hu, Ms, Rat, Dog, Hm, Pig, RMK, Primate	WB, ICC/IF, IHC-P, IHC-Fr, FACS, IP, IM, Neutralizing/Blocking
<span style="color: blue;">C</span> GTX00673	PERK (phospho Ser555) antibody	Rb pAb	Hu	WB, ELISA
GTX66661	PERK antibody	Rb pAb	Hu, Ms	WB, IHC-P
GTX82759	PERK antibody [5G5]	Ms mAb	Hu	WB, ELISA
GTX64717	SEL1L antibody	Rb pAb	Hu, Ms, Rat	WB
GTX66037	SYVN1 antibody	Rb pAb	Hu, Ms, Rat	WB
<span style="color: red;">C</span> GTX118990	SYVN1 antibody [C3-2], C-term	Rb pAb	Hu	WB, IP
<span style="color: blue;">C</span> GTX01147	TRAF2 antibody [SD205-06]	Rb mAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, FACS
<span style="color: blue;">C</span> GTX101089	VCP antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, IHC-Fr, IP
<span style="color: blue;">C</span> GTX00999	VCP antibody [JM11-15]	Rb mAb	Hu, Ms, Rat, Crucian carp	WB, ICC/IF, IHC-P, FACS
GTX31293	XBP1 antibody	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P, ELISA
<span style="color: blue;">C</span> GTX102229	XBP1 antibody [N3C3]	Rb pAb	Hu, Ms, Rat	WB, ICC/IF, IHC-P



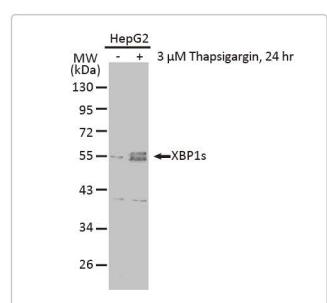
TRAF2 antibody [SD205-06] (GTX01147) C



VCP antibody (GTX101089) C



PDI antibody [N1N3] (GTX101468) C K



XBP1 antibody [N3C3] (GTX102229) C K