

Mechanisms, regulation and functions of the unfolded protein response

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Supplementary Table 1. IRE1 α binding partners and regulators.

A summary of the proteins that form complexes with IRE1. The experimental protocols and cell types used to detect the protein-protein interactions are indicated, in addition to conditions (endogenous proteins, overexpressed, tagged proteins). The complexes that were validated in vitro using purified proteins are also indicated.

Protein	Method	Endogenous complex	Overexpressed IRE1 (Tag: YES/NO)	Overexpressed interactor (Tag: YES/NO)	In vitro binding recombinant/purified proteins	Cell type	References
cABL1	IP, PLA	-	YES	NO	Yes	INS-1, MEFs, HEK	1,52
BAK	PD/IP	YES	-	-	YES	MEF	2
BAX	PD/IP	YES	-	-	YES	MEF	2
PUMA	IPMS/PD/Y2H	YES	-	-	YES	MEF/HEK	3
BIM	IPMS/PD/Y2H	YES	-	-	YES	MEF/HEK	3
BI-1	IP/PD	YES	-	-	YES	MEF/HEK	4
BiD	PD/Y2H	-	NO	YES	YES	HEK	5
Caspases	not determined	-	-	-	-	-	6
CHIP	IPMS	YES	-	-	-	HEK	7
AIP1	IP	YES	-	-	-	EC	8
UFBP1	IP	-	YES	YES	-	HEK	9
ER protein targeting machineries	PAR/CLIP/IPMS	-	YES	-	-	HEK Trex	10
Filamin A	Y2H/IP/PD/CL	YES	-	-	YES	MEF/HEK/HU7	11
Fortilin	PLA/IP/BLI	YES	-	-	YES	PC3	12
HSP47	IPMS/PLA/IP/PD/MST	YES	-	-	YES	MEF/HEK	13
HSP90	IP	YES	-	-	-	COS-7/INS-1	14, 15
HSP70	IP/PD	-	YES	NO	YES	PC12	16
BiP	IP/PD/MST	YES	-	-	YES	AT42J/HEK	17, 18
IP3R1-3	IP/PLA/PD	-	YES	NO	YES	MEF/HEK	19
JAB1	Y2H/IP/PD/CL	-	YES	YES	-	HEK	20
Myosin heavy chain IIB	IPMS/IP	-	YES	YES	-	HEK	21
NMI	MAPPIT-P	-	NO	YES	-	HEK	22
Optineurin	IP	YES	-	-	-	MODE/HT29/Ileal crypts	23
PARP16	IP	-	YES	YES	-	Hela	24
PDIA1	IP/PD	Yes	-	-	YES	HepG2	51
PDIA6	IP/MST	YES	-	-	YES	HEK	25, 26
PPM1I	IPMS	-	YES	YES	-	INS-1	27
PKA	Not tested	-	-	-	-	-	28
PKC	IP/PD	YES	-	-	YES	LO2	29
PSEN1	IP	-	YES	NO	-	SK-N-SH	30
PTP1B	Not tested	-	-	-	-	-	31
RACK1	IP	YES	-	-	-	INS-1/HEPG2	32
RIPK1	IP	-	YES	YES	-	HEK	33
RNF13	IP	-	YES	YES	-	HEK	34
RNH1	IPMS/PLA	YES	-	-	-	HK-2	35
RPAP2	IP	-	NO	YES	-	OVCAR-8	36
RTCB	IP	YES	-	-	YES	HEK	37-40
Sec61	IPMS/IP	-	YES	YES	YES	HEK	41, 42
SEL1L	IP	-	YES	NO	-	HEK	43
SIGMA-R1	IP	-	YES	YES	YES	CHO	44
HRD1	IP	YES	-	-	-	Synovial cells/HEK/HCT116	45
JIK	Y2H/IP	-	YES	YES	-	HEK	46
TRAF2-6	IP	YES	-	-	-	Primary macrophages/HEK	32
Ubiquitin D	MAPPIT	YES	-	-	-	HEK/EndoC- β H1 cells	47
USP14	Y2H/IP	YES	-	-	-	MEF/HEK/PC6.3	48, 49
YIP1	IP	YES	-	-	-	HeLa	50

IP: immunoprecipitation, PD: pull-down, IPMS: immunoprecipitation followed by mass spec analysis, Y2H: yeast two hybrid, PLA: proximity ligation assay, CL: crosslinking, MAPPIT: mammalian protein-protein interaction trap

Supplementary references Table S1

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