

HSP90 INTERACTORS

Chaperones and relatives

- Aha1 and its homolog Hch1
- Cdc37 (p50) and its relative Hsc (= Cdc37L1)
- p23 (=Sba1)
- proteins with TPR motifs: Hop (=Sti1), FKBP52 (=FKBP4; and high MW plant homologs), FKBP51 (=FKBP5), FKBP8 (=FKBP38), FKBP36 (=FKBP6), *Plasmodium* FKBP35, plant TWD1, cyclophilin-40 (Cpr6 and Cpr7), PP5 (and yeast Ppt1), Tom70, probably also related Tom71=Tom72, XAP-2 (=AIP=ARA9), Cns1 and its *Drosophila* and human relatives Dpit47 and TTC4, CHIP, UNC45A (GC-UNC45) and UNC45B, She4, DnaJC7 (=Tpr2=mDj11=CCRP), CRN, WISp39 (=FKBPL), Tah1 (=Spaghetti=RPAP3), Spag1, NASP, Toc64 and OM64, TPR1 (=Ttc1), SGT (=αSGT=SGTA), DYX1C1, AtTPR1, AtTPR2, AtTPR7, AIPL1, Tom34, *Tetrahymena* Coi12p
- CS-containing p23 relatives AARSD1, SGT1 (=SUGT1), RAR1, Siah-1-interacting protein (SIP), Chp1/CHORDC1/Morgana, B-ind1, melusin, NudC and NudCL2 (=Nudcd2)
- Cereblon
- FNIP1, FNIP2
- GIGANTEA
- Hsc70/Hsp70/Hsp72/DnaK
- Hsp60
- Ids2
- Other J-domain proteins: *E. coli* CbpA and DnaJ, human DnaJ homolog Hsj1b, *cynobacterial* DnaJ2, yeast Ydj1
- mtHsp70/Grp75/mortalin
- PhLP2A

- Pih1 (=Nop17) (mostly through Tah1)
- Prefoldin 4 and 6
- S100A1
- Sse1, Sse2
- Tel2-Tti1-Tti2 complex
- TIMP2
- TPR15, TPR16
- *Toxoplasma* Sis1-like
- Tsc1
- USP19
- USP21
- valosin-containing protein (VCP)/p97
- ZMYND10

Transcription factors

- 12(S)-HETE receptor
- AF9/MLLT3
- all vertebrate steroid receptors (GR, MR, ERα, ERβ, PR, AR)
- AGL24
- ATF3
- BBX
- BCL-6
- Bclaf1
- BES1
- BrZ7
- BZR1
- C20orf194
- CAR
- C/EBPβ
- CEBPE (C/EBPε)
- Cwt1
- CXXC1
- cytoplasmic v-erbA
- DLX6
- DMRTA1
- E1A
- E2F1 and E2F2
- EcR
- ELF3
- ERCC3
- FOXD4L6
- FOXM1
- FOXP2
- GTF2IRD2
- Hap1
- HCFC1
- HMGA1, HMGA2
- HMGB1

- HNF4A
- HP1BP3
- HSF1
- HSF2
- HsfA1, HsfA2, HsfB1
- IRF2
- IRF3
- ISX
- LFY
- LXRα (NR1H3)
- MAFG
- Mal63
- MalIR
- MAX
- Met1
- MeSRS1
- MeWRKY20
- MKX
- mod(mdg4)
- c-Myc
- Nanog
- NFIC
- NFκB-p65 (RelA)
- NFRKB
- Notch1 (ICN1)
- NR1H3
- NR1I2
- Nrf2
- Oct4
- p53
- p73
- PAS family members: Dioxin receptor (=AhR), Sim, HIF-1α, HIF-2α, HIF-3α
- PCGF6
- PER2
- PHOX2B
- POGK
- PPARα, PPARβ, PPARγ, PPARδ
- PRDM1
- PREB
- PXR
- REST
- REV-ERBα
- RlmA (of *Aspergillus*)
- SETDB1
- SIM2
- SLFN11
- SOC1
- SOX11
- Sp1
- SREBP1 (=SREBF1)
- SREBP2

- STAT1
- STAT2
- STAT3 (also in caveolin-1 complexes in rafts)
- STAT5
- SUP
- TADA2A
- TBX22
- TCF25
- TDP-43
- TEAD2
- TFEB
- TFDP3
- THAP4
- TonEBP/OREBP
- TR β
- TRIM32
- Tup1
- Twist1
- Upc2
- Ure2
- USP1
- VDR
- VP16
- water mold *Achlya* steroid (antheridiol) receptor
- WT1
- YAP1
- ZBED4
- ZBTB7A
- ZBTB17
- ZBTB20
- ZC3H7B
- ZNF215
- ZNF509
- ZNF74

Kinases

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> - ACVR1B - ACVR1C - ACVR2B - Akt/PKB - AKT2 - ALK - ALK1, ALK5 - ALPK1 - AMHR2 - AMPKα, AMPKγ - ARAF - ASK1 - ATM - AURKC - Aurora B - AXL - Bcr-Abl - BCR-FGFR1 - BGLF4 of EBV | <ul style="list-style-type: none"> - BLK - BMPR1A - BMX - BTK - c-Abl - c-Kit - c-Mos - CAMK1G - CAMK2A - CAMK2B - CAMK2D - CAMK2G - CAMK4 - CAMKK1 - CAMKK2 - CAMKV - casein kinase IIα catalytic subunit - Cdc2 (=Cdk1) - CDK11B - CDK14 - CDK15 - CDK18 - Cdk2, Cdk4, Cdk6, Cdk9, Cdk11 - CDK3 - CheA (E. coli) - Chk1 - Cla4 - CLK2 - CLK3 - Cot = Tpl-2 - CPK1 - CSF1R - CSNK1A1 - DCK - DCLK2 - DDR1 - DDR2 - Death-associated kinases DAPK, DAPK2, DAPK3 - DLK - DMPK - DYRK1B - DYRK2 - DYRK3 - DYRK4 - eEF-2 kinase - EGF receptor (mutant and wt) - eIF2-α kinases HRI, Gcn2, Perk, PKR - Eml4-Alk - EPHA1 - EphA2 - EPHA4 - EPHB1 - EPHB6 - ErbB2 | <ul style="list-style-type: none"> - ERBB3 - ERBB4 - ERK5 - FASTK - FGFR1 - FGFR3-TACC3 - FGFR3 and FGFR4 - Flt3 - FLT4 - FOP2-FGFR1 - FRK - Fused - FYN - Gal1 - GRK2 and GRK6 - GRK4 - GRK7 - GSK3A - GSK3β - HCK - HER3 - HIPK2 - HIPK4 - HopBF1 effectors - ICK - INSRR - Insulin receptor - Insulin-like growth factor 1 receptor - Integrin-linked kinase - IP6K2 - IRAK-1 - IRAK2 - IRAK3 - Irf1α - ITK - IκB kinases (IKK) α, β, γ, ϵ - JAK1 - JNK - KSR - LATS1, LATS2 - LCK - LIMK1 - LIMK2 - Lkb1 - LMTK3 - LRRK2 - LYN - MAP2K5 - MAP2K7 - MAP3K12 - MAP3K15 - MAP3K2 - MAP3K6 - MAP3K9 - MAP4K1 - MAP4K2 - MAP4K4 - MAPKKK (MEKK) YODA |
|---|--|---|

- MAPK15
- MAPK4
- MAPK6
- MAPK7
- MAST1
- MAST2
- MATK
- MEK
- MEKK1 and MEKK3
- MERTK
- MET
- Mik1
- MINK1
- MLK3
- MLKL
- MOK, MAK, MRK
- MpkA (of Aspergillus)
- Mps1 (=TTK)
- mTOR
- MUSK
- MYLK2
- MYLK3
- MYLK4
- NEK11
- NEK8
- NEK9
- NIK
- NME1
- NPM-AIk
- NPR2
- NTRK1
- NTRK2
- NTRK3
- NUAK2
- Nucleophosmin-Anaplastic Lymphoma Kinase
- p38
- p90RSK
- PAK6
- PASK
- Pbs2
- PDGFRB
- PDIK1L
- PDK1
- PGK1
- PI4K2A
- PI4KII β
- Pim-1
- PIM2
- PIM3
- Pink1
- PKC λ , PKC ϵ and other PKCs
- PKM2
- PKN1
- PKN2
- platelet-derived growth factor receptor α
- Plk1
- Plk3

- Pnck
- pp60v-src, c-src
- PRKAA2
- PRKACB
- PRKCA
- PRKCB
- PRKCG
- PRKCH
- PRKCI
- PRKCQ
- PRKCZ
- PRKD1
- PRKD2
- PRKD3 (PKD3)
- PRKDC
- PRKG2
- PRKX
- PRKY
- PSKH1
- PSKH2
- PTK2
- PTK2B
- PTK6
- PTK6
- Raf-1, B-Raf, Ste11
- RET
- RET/PTC1
- RIP1
- RIP3
- Ron
- ROR1
- ROR2
- RPS6KA1
- RPS6KA2
- RPS6KA3
- RPS6KA5
- RPS6KA6
- RPS6KB1
- RPS6KC1
- RPS6KL1
- Ryk
- SGK-1
- SGK2
- SGK223
- SGK3
- Slt2
- src related tyrosine kinases: fer, fes, fgr, fps, lck, yes
- SRPK1
- SRPK3
- SSCMK1
- STK32B
- STK32C
- STK33
- STK38
- STK38L
- STYK1
- SYK
- TAK1

- TAOK3
- TBK1
- TESK1
- TESK2
- TGF β receptors I and II
- TIE1
- TNK1
- TNK2
- TNNI3K
- TP53RK
- TrkA1 and III
- TrkB
- TSSK1B
- TSSK2
- TSSK3
- TSSK4
- TSSK6
- Tyk2
- TYRO3
- Ulk1/Atg1
- VEGFR1, VEGFR2
- Wee1, Swe1
- WNK4
- ZAP-70

Others

- 2Q2
- Act1 (=TRAF3IP2)
- Acsl4
- Adenosine A_{2A} receptor
- α_{2C} adrenergic receptor
- AFP
- Ago3
- AHH1
- AID
- AIP56
- Aldo-keto reductase 1B10
- ANAPC2
- Anillin
- ANKMY2
- Annexin A2
- ANP32C/D
- Apaf-1
- APEX2
- APH1
- APLP2
- Apn2
- apoB
- APOBEC-3B, -3C, -3G
- APRF1
- Arb1
- ARD1
- Argonaute-1 (Ago1)
- Argonaute-2 (=Ago2=GERp95)
- Argonaute-4 (Ago4)
- ARMC5
- ArtAB

- ASB17	- ChAT	- DnaA (E. coli)
- ASB2	- CheZ (E. coli)	- DNMT1
- ASB3	- Chl1	- Drp1
- ASB4	- CHMP4B	- Dsn1
- ASB6	- Chronophin	- DTX4
- ASL	- Cineole synthase 1	- E protein (of Japanese encephalitis virus)
- ASS1	- Clathrin heavy chain	- E6 ^A E7
- ATG8 (GABARAP) proteins	- CLC-1 chloride channel	- EBAX-1
- ATG8b, ATG8c, ATG8e, ATG12	- CLC-2 chloride channel	- EEF1A2
- Atp3	- Clostridium toxin CDT	- Emc2
- Axin 1	- Clostridium toxin iota	- ENC1
- BAK1	- Clusterin	- ENO1
- BALF5 of EBV	- CND1 (Arabidopsis gene <i>At1g32730</i>)	- eNOS, nNOS (?)
- β C1 (begomovirus)	- COG complex	- EPRS
- BCAP (PIK3AP1)	- COI1	- Erbin
- Bcl-2	- Collagen-1	- Ether-a-gogo-related potassium channel (ERG = HERG = KCNH2)
- Bcl-xL	- Complement C9	- EZH2
- Beclin 1	- COX-2	- F1F0-ATP synthase
- Bid	- CPEB1, CPEB2, CPEB3	- FANCA
- BIN2	- Cry1 prototoxins	- FASN
- BLM helicase	- CTA1 = CtxA1	- FBXL12
- Bms1	- Ctf13/Skp1 component of CBF3	- FBXL13
- BPIFB4	- CTNNAL1	- FBXL14
- BRAT1	- CUL1	- FBXL15
- BRCA1	- CUL2	- FBXL18
- BRCA2	- CUL3	- FBXL2
- BRD4	- CUL4A	- FBXL3
- BRI1	- CUL4B	- FBXL6
- BRMS1	- Cup	- FBXL8
- BTRC	- Cx43	- FBXO10
- C1QL1	- cyclin B	- FBXO17
- c-IAP1	- cyclophilin D (mitochondrial)	- FBXO18
- Calcineurin (Cna2; catalytic subunit)	- CYP2D6	- FBXO24
- Calmodulin	- CYP2E1	- FBXO25
- Calmodulin methyltransferase	- CYP3A4	- FBXO27
- Calnexin	- Cyr1	- FBXO28
- Calpain-1	- CdtB from <i>Helicobacter hepaticus</i>	- FBXO3
- Calponin	- cytoskeletal proteins: actin, tubulin (including ciliary β 4-tubulin), myosin (including Myo3B)	- FBXO34
- CARM1	- DBC2	- FBXO38
- Caspase-8	- DDX5	- FBXO4
- β -catenin	- Ded1	- FBXO40
- Ca _v 1.2	- DEDD	- FBXO6
- CB2 cannabinoid receptor	- Dengue virus protein E	- FBXO9
- Ccp1	- Dengue virus proteins NS1/2B/3/4B/5	- FBXW11
- CCDC117	- DET1	- FBXW2
- CD38 type III	- Dicer 1	- FBXW5
- CD47	- Diphtheria toxin A	- FBXW7
- CD79a	- DNA helicase Ssl2	- FGAMS
- CD80 (B7-1)	- DNA polymerase α	- FHIT
- CD147 (Basigin)	- DNA polymerase λ	- Fibronectin
- Cdc13	- DNA polymerase η	- Filamin A
- Cdc14		- FliN, FliI (E. coli)
- Cdc25a and Cdc25c		- FLIP _S and FLIP _L
- Cdk5 activator p35		- Folliculin
- CFTR (nascent and mutant polypeptide)		- free $\beta\gamma$ subunit of G protein
		- FtsZ

- G2E3	- KAT5	- LSM8
- $G\alpha_0$, $G\alpha_{12}$	- KAT8	- macromolecular aminoacyl-tRNA synthetase complex
- GAN	- KBTBD4	- Macrophage scavenger receptor
- GART	- KBTBD7	- MAP1B
- GSDMD	- KCBP	- MAP1LC3B
- GBP1	- KCNA5	- MAP4
- GC-A (ANP receptor)	- KCNA6	- MARCH9
- GC-C	- KCNG1	- Mdm2
- GF14-4	- KCNS3	- MDM4
- GLCCI1	- KCNQ4	- MeCatalase1
- Gln1	- KCTD8	- Mg^{2+} -dependent phosphatidate phosphohydrolase
- GLT-1	- KDM3A/JMJD1A	- MIF
- Glucocerebrosidase	- KDM4B/JMJD2B	- misfolded VHL
- GluR1	- KEAP1	- MMP2, MMP3, MMP9
- Glut1	- KIAA0317	- μ -opioid receptor
- Glutathione S-transferase subunit 3 (KS type)	- Kir6.2	- MRE11/Rad50/NBS1 (MRN) complex
- GPX4	- KLHL1	- MRP1
- GREB1	- KLHL10	- Msps/XMAP215/ch-TOG
- Guanylate cyclase, soluble	- KLHL13	- MTA1
- HAX-1	- KLHL14	- MTG8
- HDAC1	- KLHL15	- MUC1
- HDAC6	- KLHL22	- MYG1
- HDAC11	- KLHL23	- Myoglobin
- HECTD3	- KLHL25	- N-myc downstream-regulated gene 1 (NRDG1)
- Hepatitis A virus capsid proteins	- KLHL26	- N-WASP
- Hepatitis B virus core protein	- KLHL29	- $Na^+K^+Cl^-$ cotransporter 1
- Hepatitis C virus protein NS3	- KLHL32	- NadA
- Hepatitis E virus capsid protein	- KLHL34	- NAMPT
- HERC4	- KLHL36	- NAP1
- HERC6	- KLHL38	- NB-LRR proteins: RPM1 and RPS2, Nod1, Nod2, NALP2, NALP3, NALP4, NALP12, IPAF, RPP4
- Histones H1, H2A, H2B, H3 and H4	- KLHL6	- NBR1
- HMGCR	- α Klotho	- N-cadherin
- Hsp27	- knob complexes (in the membrane of <i>Plasmodium</i> -infected erythrocytes)	- NCC
- Humanin	- KSHV K1	- NCT
- Huntingtin	- KSR1	- NDRG1
- IDH1	- KSR2	- NDRG2
- IDO1	- L protein of HRSV	- NEDD4
- IFI6	- L protein of SHVV	- NELF-E
- Importin 4 (IPO4)	- L protein of RVFV	- Nervous necrosis virus capsid protein
- Importin β 1	- Lamin A/C	- Neuraminidase
- Importin- α 6 (KPNA5)	- LAMP-2A	- Neuropeptide Y
- Ino80	- LANA of KS-HSV	- NHE1
- Inositol 1,4,5-trisphosphate receptor 3	- LAP	- NHLRC1
- Integrin α 2	- LARP4B	- Nibrin
- Integrin α 4	- LDHA	- NleH1 and NleH2
- Integrin α L	- Legumain	- NMNAT2
- Integrin α M β 2	- LGALS3BP	- Nox1, Nox2, Nox3, Nox5
- Integrin α V β 5	- LIS1	- NPR3
- IL-1 β	- LNX1	- NS1
- IRS-2	- LOC440248	
- JlpA	- LOX1 (OLR1)	
- KAP1	- LOXL2	
	- Lpl1 (<i>S. aureus</i>)	
	- LRP1 (=CD91)	
	- LRP5	
	- LRSAM1	
	- LSD1	

<ul style="list-style-type: none"> - NS5 (flaviviruses) - Nsl1 - nsP3 and nsP4 of Chikungunya virus - Nucleoprotein (NP) of MERS-CoV - Nup62 - Nwd1 - OGT - Orf9b (SARS-CoV2) - OsCERK1 - P protein (rabies virus) - P1 (picornaviral capsid precursor protein P1) - P2X₇ purinergic receptor - p14ARF - p17 (Avian reovirus) - p300 - PARK2 - PARK7 (DJ-1) - PARP1 - PB1 and PB2 subunits of influenza RNA pol. - PBD2 - PCGF1 - PCGF3 - PCNA - PDE6α (PDE6C), β, γ - PDIA4 - Peli1 - perilipin - PfCRT - PGAM2 - PIDD - Piwi - PIWIL2 - PIWIL4 - PLCγ - PLN - polysomal ribonuclease 1 (PMR1) - Porcine deltacoronavirus proteins N, NS7, NSP10 - PPAT - PRDM14 - PRMT5 - pro-Dcp1 - prolactin receptor - prostacyclin synthase - proteasome - PRPF8 - PRPF19 - PsbO - Ptc2 - PTPN22 - Ptx - PUS7 - R-protein I-2 - R2TP complex through Pih1 	<ul style="list-style-type: none"> - Rab-αGDI - Rab3a - Rab11a - RAB40A - Rac/Rop GTPase Rac1 (rice) - Rac1 - RACK1B - Rad51 - Rad52 - RAG1 - Ral-binding protein 1 (RalBP1) - RanBP9 - Rapsyn - Raptor - RCBTB1 - RCBTB2 - RCC2 - RCP - Reovirus protein σ1 - REV1 - reverse transcriptase of hepatitis B virus - RFWD3 - RGS11 - RGS6 - RGS7 - RGS9 - RhoB - RHOBTB1 - ribosomal protein L2 (E. coli) - ribosomal proteins S3 and S6 - ricin catalytic A chain - RIG-I - RNA-dep. RNA polymerase (of Bamboo mosaic virus) - RNF10 - RNF111 - RNF19B - RNF40 - RNGTT - Rnr4 - RPAP2 - Rpb1 - RPN6 - Rsc3 - SA-β-galactosidase (GLB1) - SARS-CoV-2 proteins N, M, Orf3, Orf7a, and Orf7b - SCAP - SDCBP - SDF2 - SENP1 - SENP3 - SERCA2a - SERT (SLC6A4) - SF3B3 	<ul style="list-style-type: none"> - sFRP1 - SH3RF2 - Sicily - SIR2 (SIR2RP1 in Leishmania) - SIRT1 - SIRT2 - SKP2 - SKP2 complexes - SLC6A14 - SMURF1 - SMYD1, SMYD2, SMYD3 - snoRNP complexes - SNRNP200 - SOCS6 - SPSB1 - SPSB3 - SREC-I - STING - SUR1 (subunit of β-cell ATP-sensitive potassium channel) - survivin - SUV39H1 - SV40 large T-antigen - Swr1 - α-synuclein - SYVN1 - Tab2/3 - Tas3 - Tau protein - Tax - TCL1A - telomerase - TFR1 - TGFB1 - thiopurine S-methyltransferase - thrombin receptor (PAR-1) - thromboxane synthase - TiIS - TIR1 - Tissue plasminogen activator (tPA) - Titin - TLR4/MD-2 complex - TLR7 - TLR9 - Tm-2² - TNFAIP3 (=A20) - TOM40 - TRIM2 - TRIM7 - TRIM8 - TRIM10 - TRIM17 - TRIM21 - TRIM36 - TRIM37 - TRIM41
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- **TRIM49**
- **TRIM56**
- **TRIM73**
- **TRIM74**
- **Triosephosphate isomerase**
- **Trithorax (and ortholog MLL)**
- **Trx1**
- **TrxR**
- **TSG101**
- **TXNDC9**
- **Tyrosine hydroxylase**
- **UBA52**
- **UCH-L1**
- **UHRF1**
- **UL42 (of HSV-1)**
- **Ulp1**
- **uPA**
- **Ura2**
- **URI complex**
- **Uroporphyrinogen decarboxylase (HemE) [in cyanobacteria]**
- **Us11 (of HSV-1)**
- **USP14**
- **Utp21**
- **Vaccinia core protein 4a**
- **VDAC1**
- **vFLIP (of KSHV)**
- **Vimentin**
- **VIP1**
- **VP1** (capsid proteins of norovirus and feline calicivirus)
- **VP5** of pseudorabies virus
- **VP5, VP7, VP35** of grass carp reovirus
- **VP37** (Broad bean wilt virus 2)
- **VPS18**
- **VPS41**
- **WASF3**
- **WSB2**
- **WSSV322** (white spot syndrome virus)
- **WTAP**
- **WWP1, WWP2**
- **XopC2**
- **XPO1**
- **XPORT**
- **XRCC1**
- **ZEITLUPE**

Notes:

- Only the cytosolic form(s) of Hsp90 is considered.
- Clients from different species are all mixed together and the protein names are typically those of the original publication (i.e. not necessarily the official protein name).
- Only proteins are listed for which biochemical evidence for an interaction is available (i.e. geldanamycin effects alone are not considered as sufficient).
- **Looking for references? See <https://www.picard.ch/downloads/Hsp90facts.pdf>.**
- More candidate interactors can be found in reports about proteomic approaches (Falsone et al. [2005] FEBS Lett. 579, 6350; Te et al. [2007] J. Proteome Res. 6, 1963; Caldas-Lopes et al. [2009] PNAS 106, 8368; Tsaytler et al. [2009] Cell Stress Chaperones 14, 629; Gong et al. [2009] Mol. Syst. Biol. 5, 275; Gano and Simon [2010] Mol. Cell. Proteomics 9, 255; Behrends et al. [2010] Nature 466, 68; Wang et al. [2010] Cancer Invest. 28, 635; Garcia-Descalzo et al. [2011] Cell Stress Chaperones 16, 203; Skarra et al. [2011] Proteomics 11, 1508, Moulik et al. [2011] Nat. Chem. Biol. 7, 818; Wu et al. [2012] Mol. Cell. Proteomics 11, M111 016675; Taipale et al. [2012] Cell 150, 987; Buljan et al. [2020] Mol. Cell 79, 504; Taipale et al. [2014] Cell 158, 434; Truman et al. [2015] J. Proteomics 112, 285; Savitsky et al. [2018] Cell 173, 260; Zhao et al. [2021] Mol. Cell 81, 2914; Liu et al. [2022] Nucleic Acids Res. 50, 6990; Kolhe et al. [2023] Mol. Cell 83, 2035; Huang et al. [2024] PNAS 121, e2319060121); global analyses (e.g. Zhao et al. [2005] Cell 120, 715; Millson et al. [2005] Euk. Cell 4, 849; McClellan et al. [2007] Cell 131, 121; Franzosa et al. [2011] PLoS One 6, e28211; Sharma et al. [2012] Mol. Cell. Proteomics 11, M111 014654; Rizzolo et al. [2017] Cell Rep. 20, 2735; Miao et al. [2018] Anal. Chem. 90, 11751; O'Meara et al. [2019] PLoS Biol. 17, e3000358; Tsvetkov et al. [2020] Cell Rep. 32, 108001; Yan et al. [2023] Plant Cell Environ. 46, 1935; Guo et al. [2024] Data Brief 55, 110583); and in pharmacological surveys of kinases (Citri et al. [2006] J. Biol. Chem. 281, 14361; Haupt et al. [2012] BMC Cancer 12, 38).
- **See [Hsp90Int.db](#) for the comprehensive (notably human) interactome built with data from public protein-protein interaction databases and the literature (Echeverría et al. [2011] PLoS One 6, e26044; and its associated database at <https://www.picard.ch/Hsp90Int>). Hsp90Int.db also uses exclusively the official NCBI names.**