

Supplementary Table I: Summary of all Rga2p phosphopeptides identified in this study using mass spectrometry

Residues	Peptide	<i>in vitro</i>		<i>in vivo</i>		
		Pho85-Pcl2	Cdc28-Cln2	wild-type	<i>pho85Δ</i>	<i>cln1,2Δ</i>
2 - 15	[pSADPINDQSSLCVR] <sup>2+</sup>			LTQ		
2 - 15	[pSADPINDQSSLCVR] <sup>3+</sup>			LTQ		
140 - 153	[NSpSKEDFPIKLPER] <sup>3+</sup>			LTQ		
164 - 179	[INGKSDVpSpTNNTAISK] <sup>2+</sup>		LTQ			
226 - 258	[TVSIDDILNSpTLEHDSNSIEEQSLVDNEDYINK] <sup>3+</sup>				LTQ	
295 - 322	[FFSIYDKEETDKDDTDNKENEIIVNpTPR] <sup>4+</sup>	QSTAR				
323 - 359	[NSTDKITpSPLNSPMAVQMNEEVEPPHGLALTLSEATK] <sup>4+</sup>	QSTAR				
323 - 359	[NSTDKITSPLNpSPMAVQMNEEVEPPHGLALTLSEATK] <sup>4+</sup>		QSTAR			
328 - 359	[ITSPLNpSPMAVQMNEEVEPPHGLALTLSEATK] <sup>3+</sup>					LTQ
328 - 359	[ITSPLNpSPMAVQMNEEVEPPHGLALTLSEATK] <sup>4+</sup>	QSTAR	QSTAR			
375 - 384	[SMNHVpSPITR] <sup>2+</sup>			LTQ		
521 - 541	[AQpSpSLGpSpSKKQNSNDTApTNR] <sup>2+</sup>			LTQ		LTQ
561 - 571	[pTPPLESGPLFK] <sup>2+</sup>	QSTAR				
682 - 699	[ENIATSITVKpSPSSNSDR] <sup>2+</sup>		LTQ	LTQ	LTQ	LTQ
682 - 699	[ENIATSITVKpSPSSNSDR] <sup>3+</sup>	QSTAR	LTQ	LTQ		LTQ
682 - 700	[ENIATpSITVKSPSSNSDRK] <sup>2+</sup>		LTQ			
682 - 700	[ENIATSITVKpSPSSNSDRK] <sup>3+</sup>	QSTAR	LTQ		LTQ	LTQ
682 - 700	[ENIATSITVKpSPpSSNSDRK] <sup>3+</sup>					LTQ
701 - 711	[GSISNAPSPKPR] <sup>2+</sup>					QSTAR
721 - 747	[DHQVGDLQQRpSPNSSSGGTTNIAQK] <sup>3+</sup>		LTQ	LTQ	LTQ	LTQ
721 - 747	[DHQVGDLQQRpSPNSSSGGTTNIAQK] <sup>4+</sup>			QSTAR	QSTAR	
721 - 747	[DHQVGDLQQRpSPNpSSSGGTTNIAQK] <sup>3+</sup>					LTQ

733 - 747	[pSPNSSSSGGTTNIAQK] <sup>2+</sup>					QSTAR
757 - 774	[VHDELPpSPGKVPLSPSPK] <sup>2+</sup>			LTQ	LTQ	
757 - 774	[VHDELPpSPGKVPLSPSPK] <sup>3+</sup>			LTQ / QSTAR		
757 - 774	[VHDELPSPGKVPLpSPSPK] <sup>2+</sup>		LTQ			LTQ
757 - 774	[VHDELPSPGKVPLpSPSPK] <sup>3+</sup>	QSTAR	LTQ / QSTAR		LTQ	
757 - 774	[VHDELPSPGKVPLpSPSPK] <sup>4+</sup>	QSTAR				
757 - 774	[VHDELPpSPGKVPLpSPSPK] <sup>2+</sup>			LTQ		
757 - 774	[VHDELPpSPGKVPLpSPSPK] <sup>3+</sup>	QSTAR	LTQ / QSTAR	QSTAR	QSTAR	LTQ
757 - 774	[VHDELPpSPGKVPLSPpSPK] <sup>2+</sup>		LTQ			
757 - 774	[VHDELPpSPGKVPLSPpSPK] <sup>3+</sup>	QSTAR				
757 - 774	[VHDELPSPGKVPLpSPpSPK] <sup>2+</sup>				LTQ	LTQ
757 - 774	[VHDELPSPGKVPLpSPpSPK] <sup>3+</sup>					QSTAR
757 - 774	[VHDELPpSPGKVPLpSPpSPK] <sup>2+</sup>		LTQ	LTQ	LTQ	LTQ
757 - 774	[VHDELPpSPGKVPLpSPpSPK] <sup>3+</sup>	QSTAR	LTQ	LTQ / QSTAR	QSTAR	QSTAR
767 - 774	[VPLSPpSPK] <sup>2+</sup>			LTQ		
775 - 793	[RLDpYTPDGSHLYGSSLQAR] <sup>3+</sup>				LTQ	
775 - 793	[RLDYpTPDGSHLYGSSLQAR] <sup>2+</sup>		LTQ			
775 - 793	[RLDYpTPDGSHLYGSSLQAR] <sup>3+</sup>	QSTAR				
776 - 793	[LDpYpTPDGpSHLYGSSLQAR] <sup>3+</sup>		LTQ			
828 - 855	[SGpSQpTLVEEIEIENFAQNNLSHSDTLSPK] <sup>4+</sup>			QSTAR		QSTAR
878 - 896	[LPDPVLpSFpSIYDALIDLVR] <sup>3+</sup>				QSTAR	
911 - 926	[FLDpSPQKVTIYEMVLK] <sup>2+</sup>			LTQ		
918 - 944	[VTIYEMVLKpSLLIFKILPVEHQEVLK] <sup>3+</sup>			LTQ		

NB: phosphorylation sites are indicated by lowercase "p" prior to phosphorylated residue. Observed charge states indicated in superscript following peptide. LTQ, QSTAR – peptide(s) identified using the LTQ and QSTAR mass spectrometers, respectively.