

**TABLE S1. Confidence level classification parameters used by BD Biosciences**

CL	Fold change	Signal Quality <sup>a</sup>	Visual Inspection	# comparisons
10	>2	Good	Pass	9 / 9
9	1.5 – 2	Good	Pass	9 / 9
8	>2	Low	Pass	9 / 9
7	1.25 – 1.5	Good	Pass	9 / 9
6	>2	Good	Fail	9 / 9
5	1.5 – 2	Good	Fail	9 / 9
4	>2	Low	Fail	9 / 9
3	1.25 – 1.5	Good	Fail	9 / 9
2	1.25 – 2	Low	Fail	9 / 9
1	>1.5	Good	-	8 / 9 <sup>b</sup>

<sup>a</sup> Quality of a signal is determined by software.

<sup>b</sup> For one of the 9 comparisons, fold change was less than 1.25

**TABLE S3. Summary of differentially expressed proteins after CADA-treatment, as detected with BD PowerBlot™**

<b>Down-regulated proteins</b>		
Uniprot ID	Name	CL <sup>a</sup>
Q9ULH1	Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 1 – 148 kDa <sup>b</sup>	10
Q15283	Ras GTPase-activating protein 2	10
P63208	S-phase kinase-associated protein 1 – 17 kDa	10
P42224	Signal transducer and activator of transcription 1 – 93 kDa	10
P35637	RNA-binding protein FUS	10
Q13426	DNA repair protein XRCC4	10
O43583	Density-regulated protein	9
P54687	Branched-chain-amino-acid aminotransferase, cytosolic	9
P05412	c-Jun/Transcription factor AP-1	9
P29350	Tyrosine-protein phosphatase non-receptor type 6	9
Q06124	Tyrosine-protein phosphatase non-receptor type 11	9
P62491	Ras-related protein Rab-11A	9
Q92667	A-kinase anchor protein 1, mitochondrial	8
Q9ULH1	Arf-GAP with SH3 domain, ANK repeat and PH domain-containing protein 1 – 134 kDa	8
O14745	Na(+)/H(+) exchange regulatory cofactor NHE-RF1	8
Q9UIV8	Serpin B13	7
Q99523	Sortilin/Neurotensin Receptor 3	7
P40763	Signal transducer and activator of transcription 3	7
P04083	Annexin A1	6
O43929	Origin recognition complex subunit 4	6
P11233	Ras-related protein Ral-A	6
P29475	Nitric oxide synthase, brain	4
Q15596	Nuclear receptor coactivator 2	4
O60231	Putative pre-mRNA-splicing factor ATP-dependent RNA helicase DHX16	3
P30042	ES1 protein homolog, mitochondrial	3
P06239	Tyrosine-protein kinase Lck	3
P51955	Serine/threonine-protein kinase Nek2	3
Q96D71	RalBP1-associated Eps domain-containing protein 1	3
P53779	Mitogen-activated protein kinase 10	2
P41743	Protein kinase C iota type	2
P62826	GTP-binding nuclear protein Ran	2
P42224	Signal transducer and activator of transcription 1 – 89 kDa	2
O00267	Transcription elongation factor SPT5	1

TABLE S3 (continued)

<b>Up-regulated proteins</b>		
Uniprot ID	Name	CL
P30281	G1/S-specific cyclin-D3	10
Q13501	Sequestome-1/p62 lck ligand	10
Q08999	Retinoblastoma-like protein 2	10
P63208	S-phase kinase-associated protein 1 – 20 kDa	9
P12814	Alpha-actinin-1	7
O15155	BET1 homolog	7
P06493	Cyclin-dependent kinase 1	7
O75475	PC4 and SFRS1-interacting protein	7
Q9NRZ9	Lymphoid-specific helicase	7
Q16625	Occludin	7
Q13596	Sorting nexin-1	7
P53778	Mitogen-activated protein kinase 12	6
P07339	Cathepsin D	5
O75912	Diacylglycerol kinase iota	4
O94979	Protein transport protein Sec31A	4
O15379	Histone deacetylase 3	3
P78344	Eukaryotic translation initiation factor 4 gamma 2	3
P19174	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-1/PLC-II	3
Q92854	Semaphorin-4D/CD100	2
P07099	Epoxide hydrolase 1	2
P22061	Protein-L-isoaspartate(D-aspartate) O-methyltransferase	2

<sup>a</sup> Confidence Level: assigned using signal criteria listed in Table S1.

<sup>b</sup> When proteins were detected with multiple bands on the gel, apparent molecular weight is indicated for each band.

**TABLE S4. Signal peptide and signal anchor proteins detected in BD PowerBlot™**

Uniprot ID	Protein name	Signal <sup>a</sup>
O43561	Linker for activation of T-cells family member 1	SAS
P04626	Receptor tyrosine-protein kinase erbB-2	SP
P05121	Plasminogen activator inhibitor 1	SP
P05362	Intercellular adhesion molecule 1	SP
P05556	Integrin beta-1	SP
P06396	Gelsolin	SP
P07099	Epoxide hydrolase 1	SAS
P07339	Cathepsin D	SP
P11021	78 kDa glucose-regulated protein	SP
P11279	Lysosome-associated membrane glycoprotein 1	SP
P13667	Protein disulfide-isomerase A4	SP
P15144	Aminopeptidase N	SAS
P17301	Integrin alpha-2	SP
P25445	Tumor necrosis factor receptor superfamily member 6	SP
P19634	Sodium/hydrogen exchanger 1	SAS
P05305	Endothelin-1 receptor	SP
P27824	Calnexin	SP
P30411	B2 bradykinin receptor	SAS
P32004	Neural cell adhesion molecule L1	SP
P78324	Tyrosine-protein phosphatase non-receptor type substrate 1	SP
Q04912	Macrophage-stimulating protein receptor	SP
Q13586	Stromal interaction molecule 1	SP
Q14118	Dystroglycan	SP
Q92854	Semaphorin-4D	SP
Q99523	Sortilin/Neurotensin Receptor 3	SP
P20273	B-cell receptor CD22	SP
O43493	Trans-Golgi network integral membrane protein 2	SP

<sup>a</sup> SP – Signal peptide; SAS – Signal anchor sequence

FIG. S1

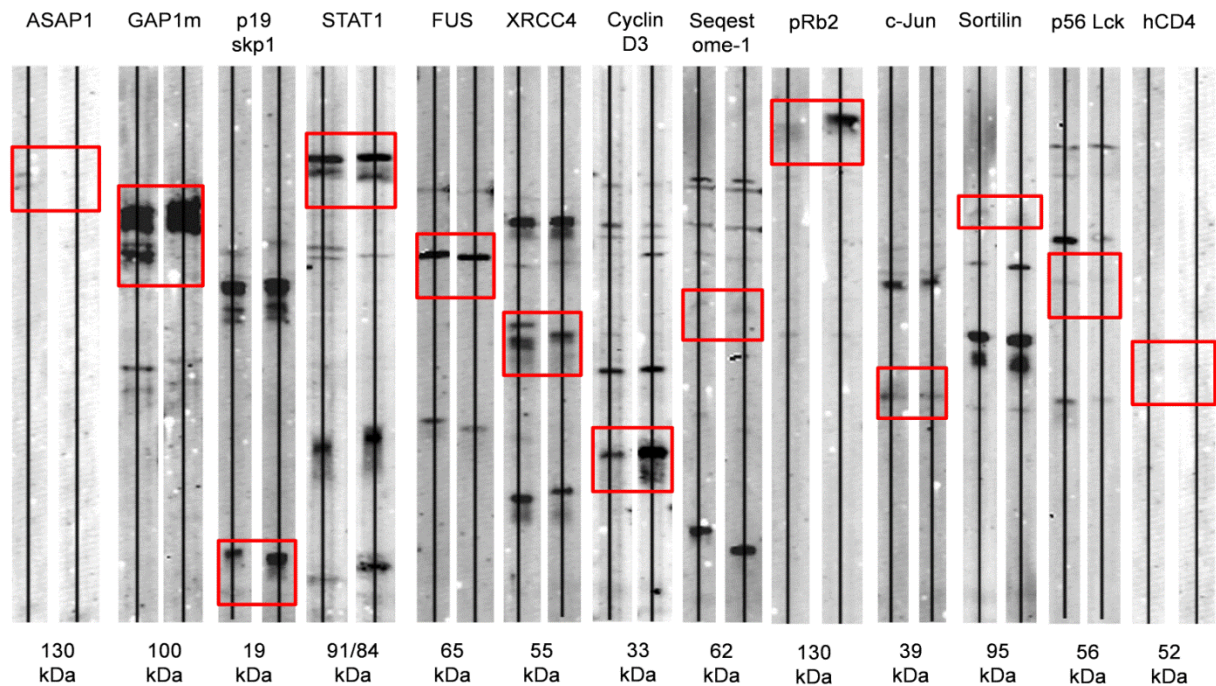


FIG. S1. **BD PowerBlot™ Western Array images of proteins selected for validation.** Detailed image comparison of the proteins from Table 1. In each comparison, left blots represent the DMSO control and right blots the CADA-treated cell lysates. The predicted molecular weight (in kDa) of each protein is given below the blots. Red boxes indicate their expected position on the gel, based on the molecular weight standards of each blot.