

QRIME Scene Investigation - Report

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1 Differential binding

Here follows the analysis output for ER 45min vs ER 0min, excluding peptides with missing intensities, quantile normalization.

1.1 MA plot

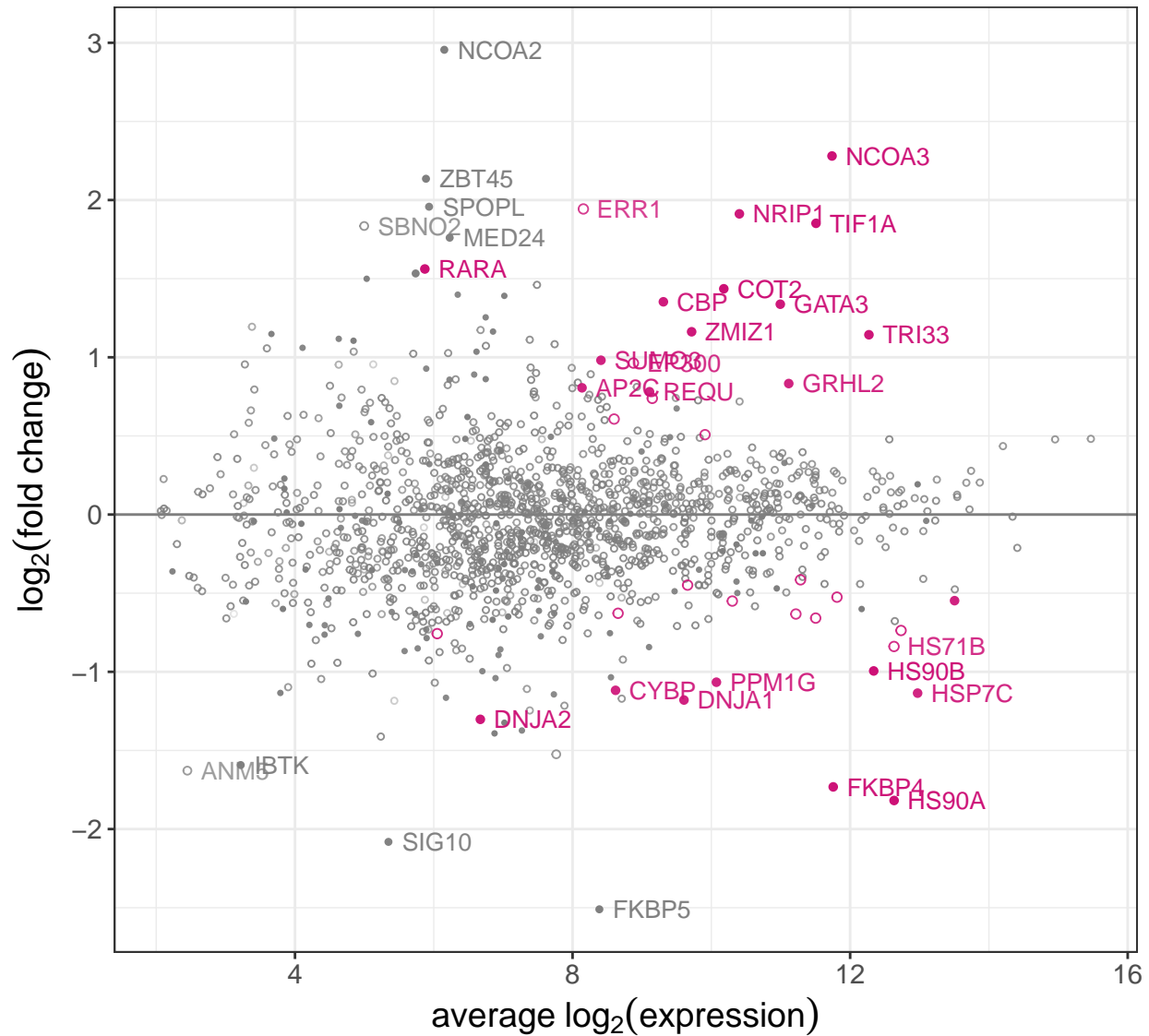
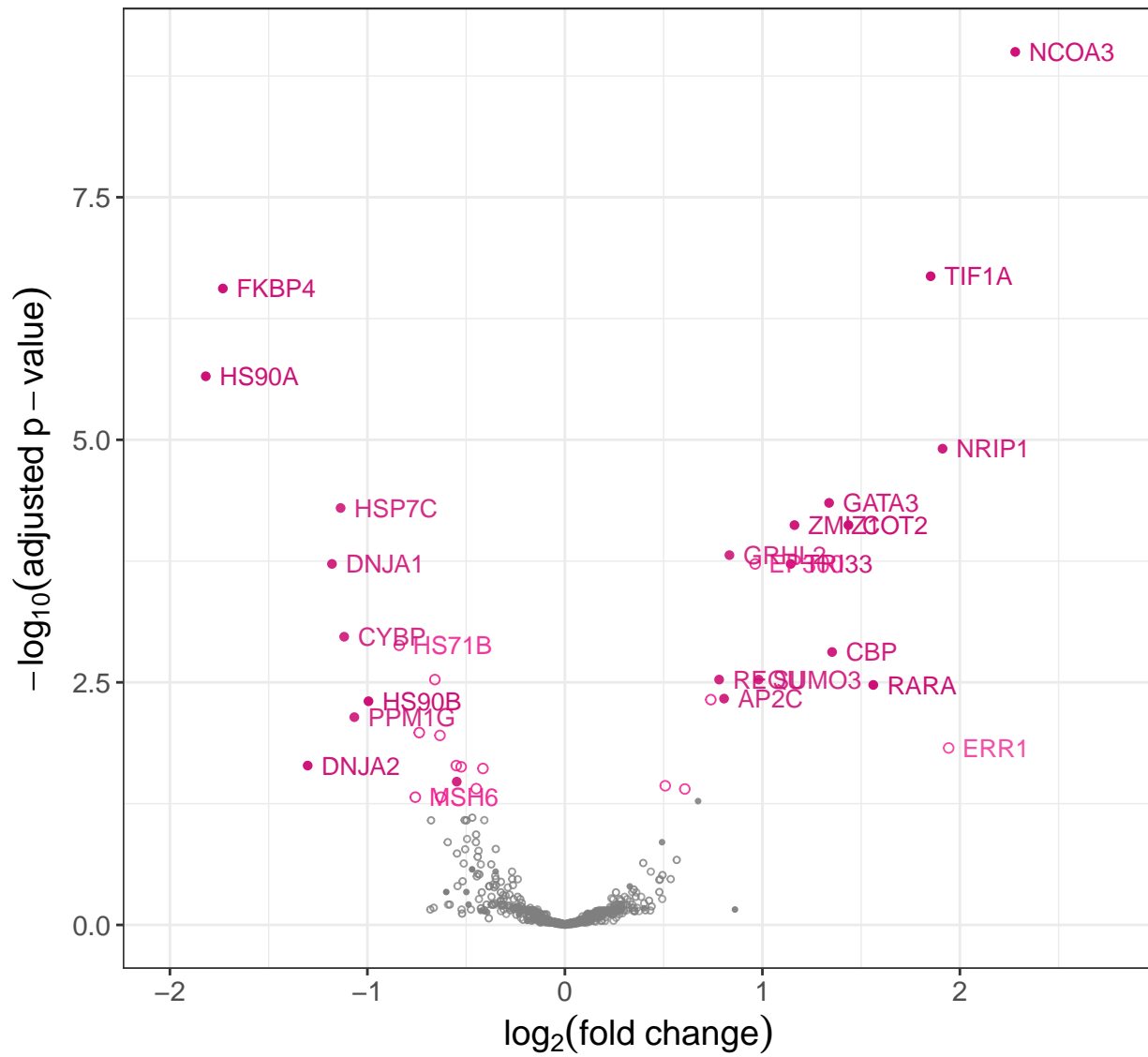


Figure 1: MA plot of the average intensity against log₂ fold change for the ER 45min vs ER 0min comparison (excluding peptides with missing intensities, quantile normalization). Top ranking differentially-bound proteins with false discovery rate below 0.05 are highlighted in pink. Open circles indicate that the protein is non-specific from the IgG control comparison.

1.2 Volcano plot



1.3 P-value histogram

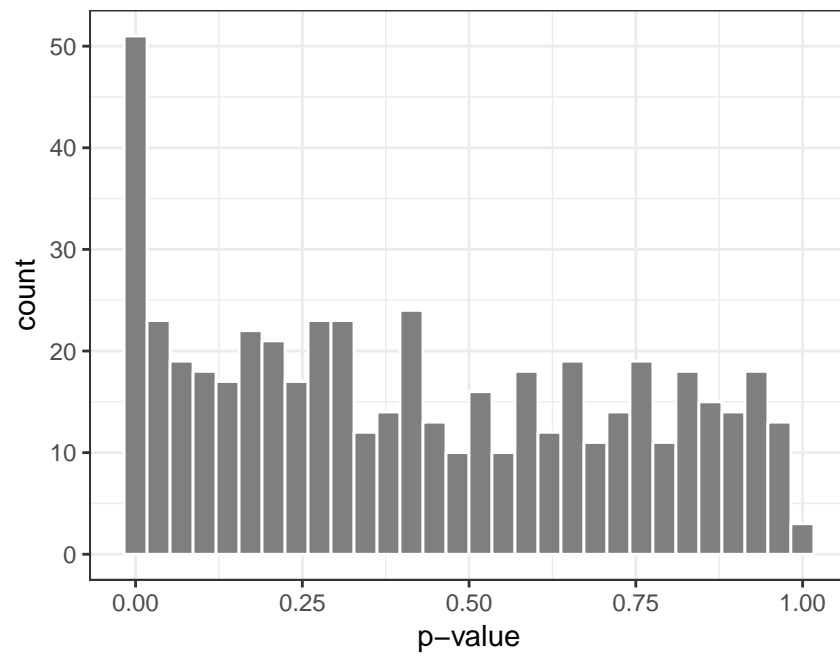


Figure 2: Histogram of p-values for the ER 45min vs ER 0min comparison (excluding peptides with missing intensities, quantile normalization)

1.4 QQ plot

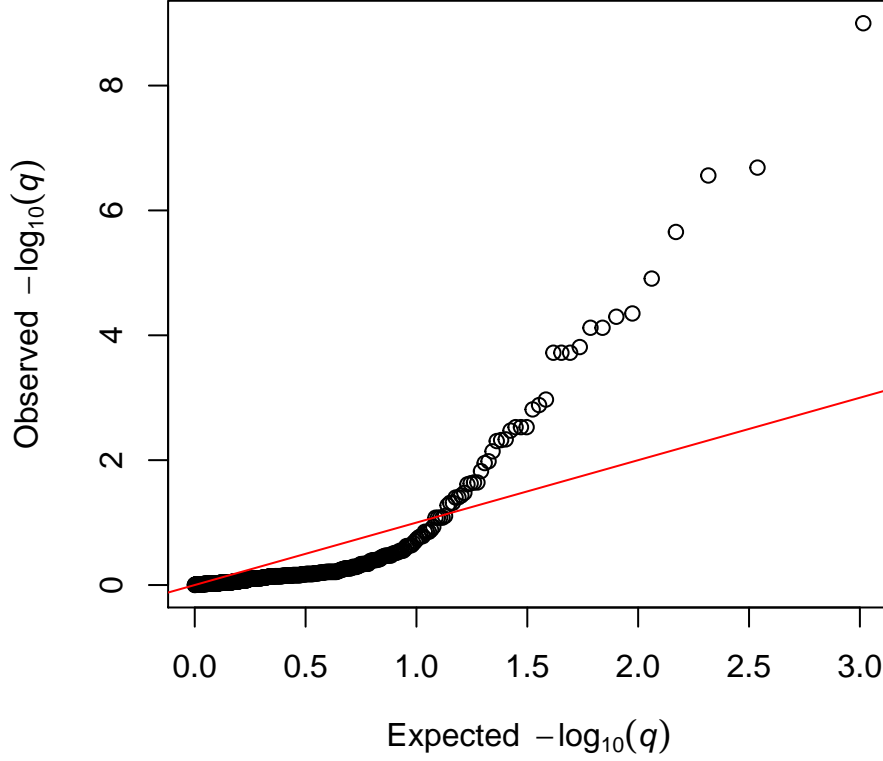


Figure 3: QQ plot of the adjusted p-values for the ER 45min vs ER 0min comparison (excluding peptides with missing intensities, quantile normalization)

2 Differential binding results tables

The following tables contain the top ranking differentially bound proteins for each comparison. Included are all proteins that reach a statistical significance of 0.05 in terms of the adjusted p-value and those with an absolute \log_2 fold change of 1 or above.

The IgG column gives the larger of the \log_2 fold changes for the two groups against the IgG control and an asterisk indicates specific binding where this \log_2 fold change is above a threshold of 1. N is the number of replicates in which the protein was observed.

In all cases, peptide intensities were quantile normalized and measurements with missing values were removed prior to summarization at the protein level.

2.1 ER 90min vs ER 0min

Protein	Gene	N	log2FC	Avg Expr	p-value	B	IgG
Q15596	NCOA2	1	2.82	6.15			1.98 *
Q13451	FKBP5	2	-2.39	8.39			2.55 *
Q96LC7	SIG10	1	-2.25	5.35			1.79 *
Q9Y6Q9	NCOA3	3	2.22	11.74	1.5e-09	18.27	1.84 *
Q96K62	ZBT45	1	2.19	5.89			2.63 *
Q6IQ16	SPOPL	1	2.16	5.93			1.79 *
Q9Y2G9	SBNO2	1	2.15	5.00			0.41
P48552	NRIP1	3	2.03	10.40	5e-06	8.74	1.68 *
Q6UX73	CP089	1	2.00	8.00			1.27 *
O75448	MED24	1	1.88	6.23			1.77 *
P20393	NR1D1	1	1.86	8.26			1.17 *
Q68CL5	TPGS2	2	-1.85	3.12			-6.76
O15164	TIF1A	3	1.84	11.51	2.3e-07	12.70	2.14 *
P07900	HS90A	3	-1.82	12.63	2.3e-06	9.75	2.23 *
P11474	ERR1	3	1.81	8.16	0.024	-1.59	-0.28
O14770	MEIS2	1	1.76	6.35			1.44 *
Q2M1P5	KIF7	1	1.74	7.49			0.99
Q02790	FKBP4	3	-1.72	11.76	3.2e-07	11.99	1.89 *
Q15648	MED1	1	1.66	5.74			2.09 *
P10276	RARA	3	1.58	5.87	0.0033	0.87	2.77 *
O60229	KALRN	1	1.57	6.32			0.86
P15408	FOSL2	1	1.57	3.66			2.11 *
Q9UBW7	ZMYM2	1	1.55	6.75			1.76 *
P81605	DCD	1	1.47	4.63			-1.79
P24468	COT2	3	1.45	10.18	7.4e-05	5.53	2.08 *
Q86UV5	UBP48	1	-1.44	7.27			1.36 *
P32242	OTX1	2	1.43	5.03			1.81 *
Q92624	APBP2	1	-1.42	6.01			0.05
Q6KC79	NIPBL	1	1.42	4.84			2.94 *
Q92793	CBP	3	1.41	9.31	0.0011	2.27	1.54 *
P23771	GATA3	3	1.38	10.99	2.8e-05	6.79	1.65 *
Q9P2D7	DYH1	1	-1.37	7.02			2.63 *
O15117	FYB	1	1.36	3.38			-1.71
P34932	HSP74	1	-1.29	5.24			0.54
O60884	DNJA2	3	-1.28	6.67	0.024	-1.61	1.76 *
O00712	NFIB	1	1.28	6.67			-0.24
O76094	SRP72	1	1.25	3.41			0.35
Q9NWS6	F118A	1	-1.25	3.79			1.60 *
O60934	NBN	1	-1.24	4.24			0.84
Q13492	PICAL	1	1.24	3.60			0.30
Q8WX92	NELFB	2	-1.23	6.70			1.26 *
Q8N2W9	PIAS4	2	1.21	7.02			1.50 *
Q8N283	ANR35	1	-1.20	8.71			-0.15
Q6KB66	K2C80	2	1.19	11.02			0.73
Q9UNE7	CHIP	2	-1.17	7.73			1.05 *
O60809	PRA10	1	-1.17	7.88			-0.24
P31689	DNJA1	3	-1.16	9.61	0.00026	3.87	1.20 *
Q9Y6X2	PIAS3	2	1.15	6.75			0.79
Q4L235	ACSF4	1	-1.14	4.38			-0.13

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Protein	Gene	N	log2FC	Avg Expr	p-value	B	IgG	
Q15126	PMVK	1	-1.14	5.45			0.49	
Q9Y4C1	KDM3A	1	-1.11	5.93			0.91	
Q13158	FADD	1	-1.11	2.11			-0.90	
Q9ULL5	PRR12	1	1.11	3.33			-0.10	
P11142	HSP7C	3	-1.11	12.97	7.3e-05	5.69	1.00	*
Q9HB71	CYBP	3	-1.10	8.62	0.0013	2.04	1.02	*
Q6P2C8	MED27	1	1.10	6.21			0.06	
Q9UL15	BAG5	1	-1.09	6.18			1.11	*
Q6PHW0	IYD1	1	1.09	6.85			1.45	*
P07205	PGK2	1	-1.08	6.73			1.03	*
Q96QK1	VPS35	1	1.08	4.72			0.59	
O15355	PPM1G	3	-1.07	10.07	0.0065	-0.12	1.09	*
Q9UPN9	TRI33	3	1.05	12.27	0.00045	3.22	1.64	*
P61960	UFM1	1	-1.05	6.88			1.92	*
Q9ULJ6	ZMIZ1	3	1.04	9.72	0.00025	3.98	1.49	*
O43866	CD5L	2	-1.04	6.17			-2.51	
O14686	KMT2D	1	1.04	7.38			0.32	
Q5D862	FILA2	1	-1.03	7.77			-0.29	
Q09472	EP300	3	1.03	8.88	0.00011	5.00	0.86	
Q8NFD5	ARI1B	1	1.02	7.74			0.50	
P08238	HS90B	3	-1.00	12.34	0.0047	0.32	2.04	*
P55854	SUMO3	3	0.96	8.41	0.0034	0.71	1.11	*
P52701	MSH6	3	-0.93	6.05	0.012	-0.78	0.97	
Q6ISB3	GRHL2	3	0.85	11.12	0.00012	4.82	1.05	*
Q92754	AP2C	3	0.84	8.14	0.0033	0.88	1.19	*
P63165	SUMO1	3	0.79	9.15	0.0033	0.98	0.77	
Q92785	REQU	3	0.77	9.11	0.0034	0.81	1.15	*
P0DMV9	HS71B	3	-0.75	12.63	0.0034	0.76	0.65	
P61956	SUMO2	3	0.73	9.50	0.033	-2.05	1.10	*
P12956	XRCC6	3	-0.72	12.73	0.012	-0.75	0.90	
O14497	ARI1A	3	0.72	8.60	0.012	-0.81	0.41	
P78527	PRKDC	3	-0.68	11.22	0.0061	-0.03	0.36	
Q9HAV4	XPO5	3	-0.65	8.66	0.037	-2.19	0.72	
P31948	STIP1	3	-0.62	11.50	0.0047	0.29	0.59	
Q04724	TLE1	3	0.61	9.40	0.041	-2.32	1.12	*
Q92925	SMRD2	3	0.58	9.91	0.014	-1.00	0.31	
P55060	XPO2	3	-0.56	10.10	0.044	-2.43	0.86	
Q9Y383	LC7L2	3	-0.51	10.30	0.037	-2.18	0.51	
P09874	PARP1	3	-0.50	11.81	0.033	-2.01	0.63	
Q99873	ANM1	3	-0.40	11.29	0.033	-1.99	0.65	

Table 1: Top ranking differentially bound proteins from the ER 90min vs ER 0min comparison, sorted by log2 fold change.