Appendix

Time-series transcriptomics and proteomics reveal alternative modes to decode p53 oscillations

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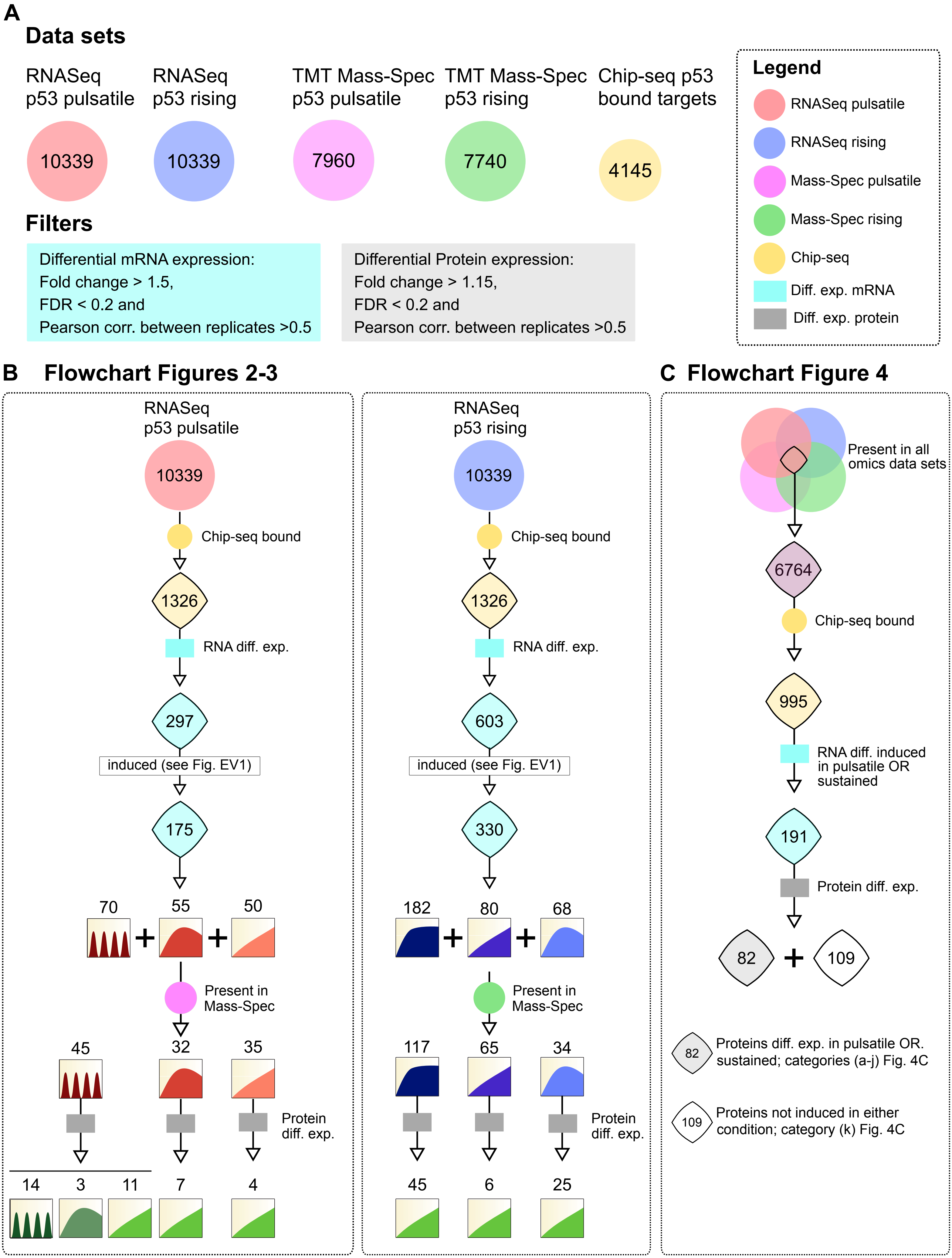
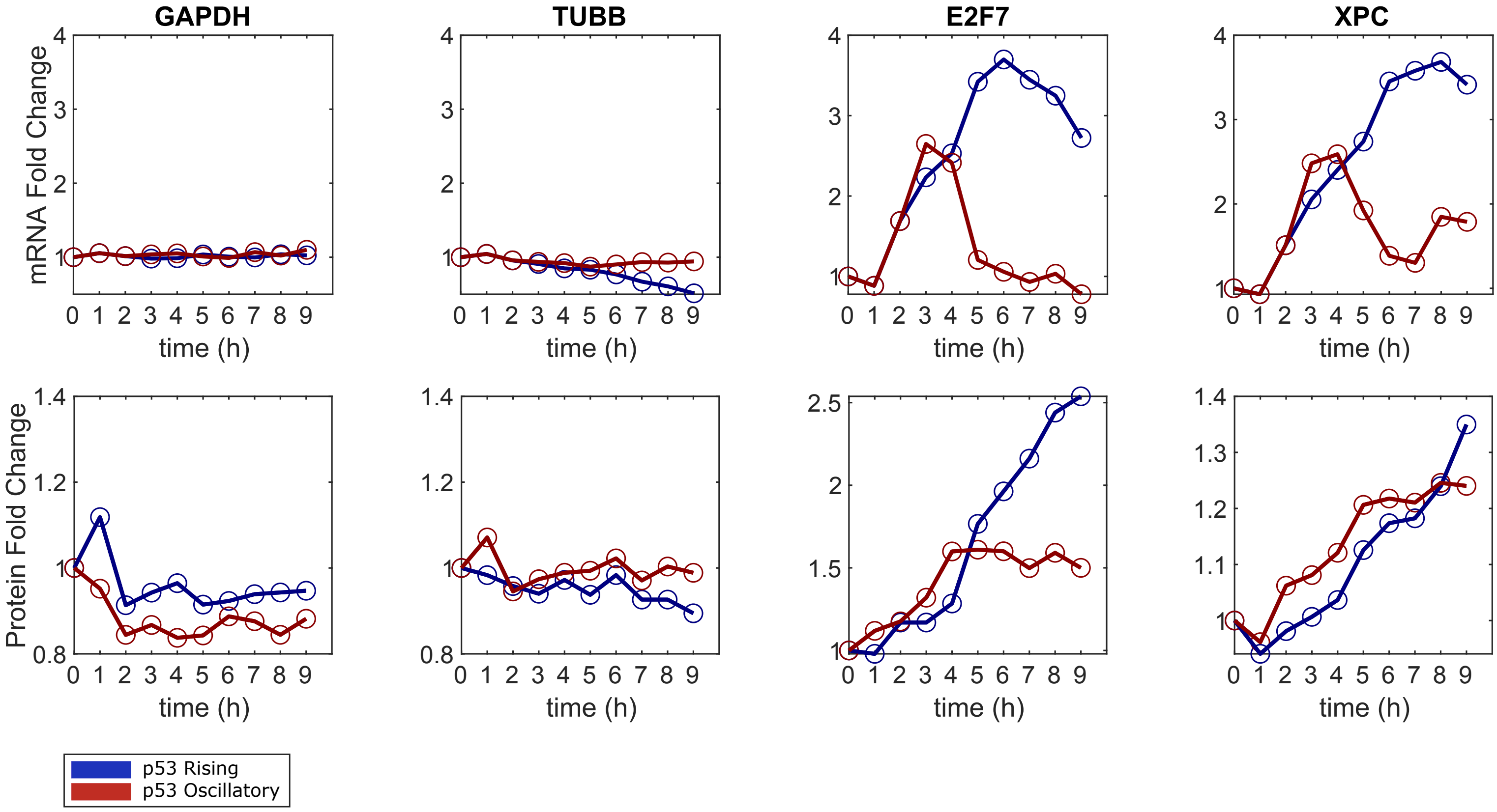
Appendix Figure S1



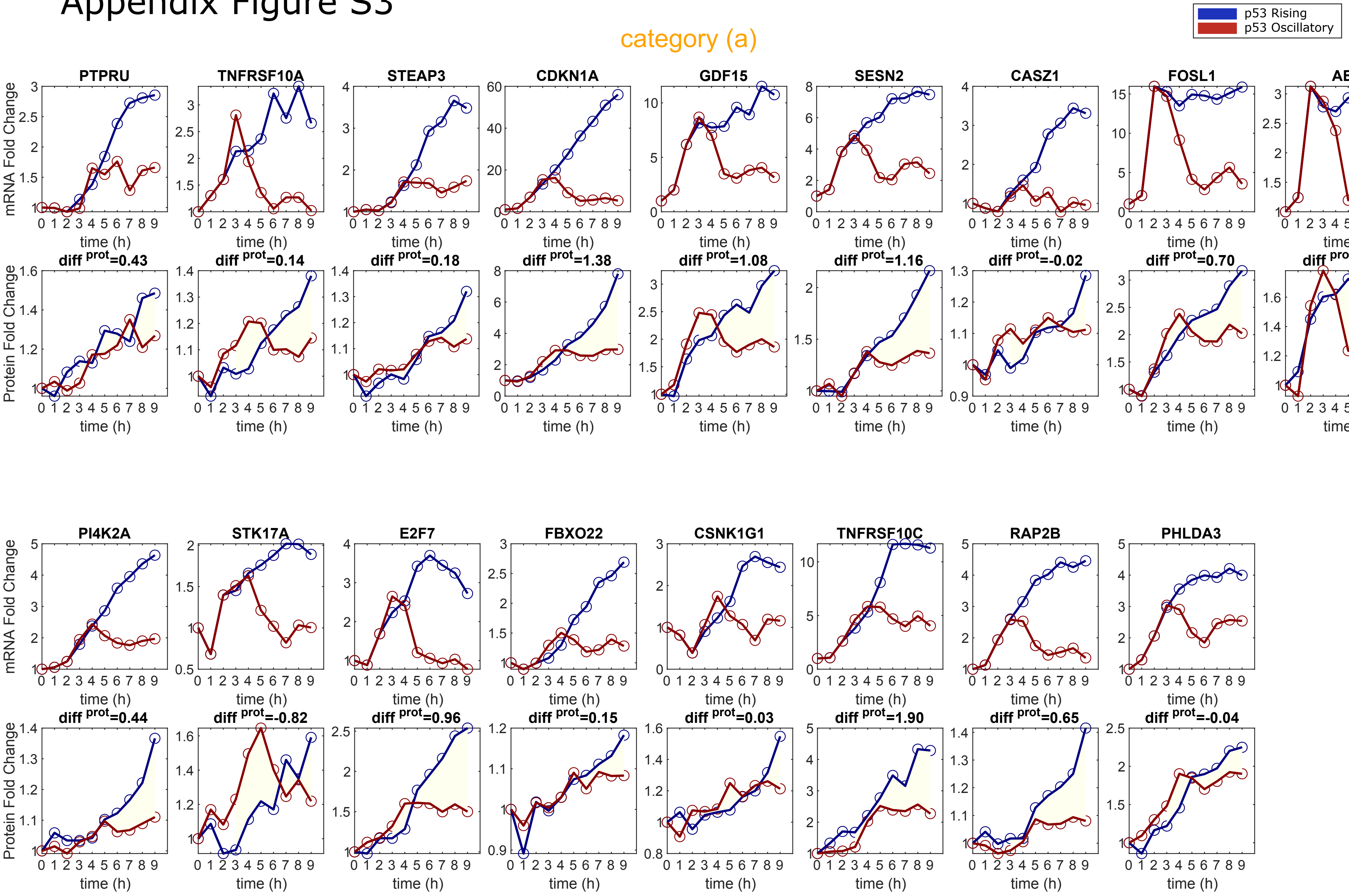
Appendix Figure S1: Flowcharts detailing (A) The different data sets and filters used in the study (B) Flowcharts for Figures 2 and 3 (C) Flowchart for Figure 4.

Appendix Figure S2

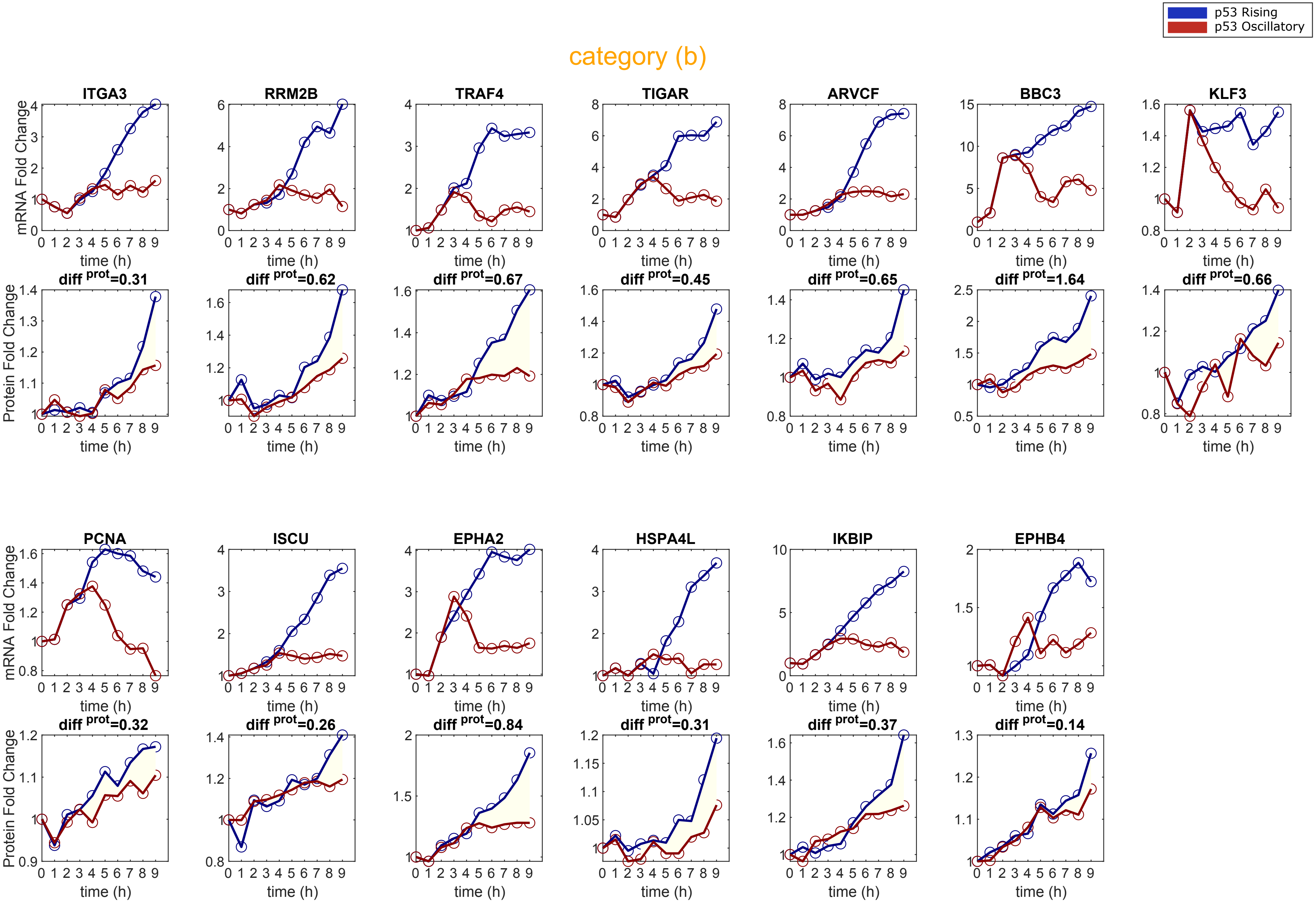


Appendix Figure S2: mRNA and protein profiles of house-keeping genes GAPDH and TUBB, as well as two p53 targets E2F7 and XPC.

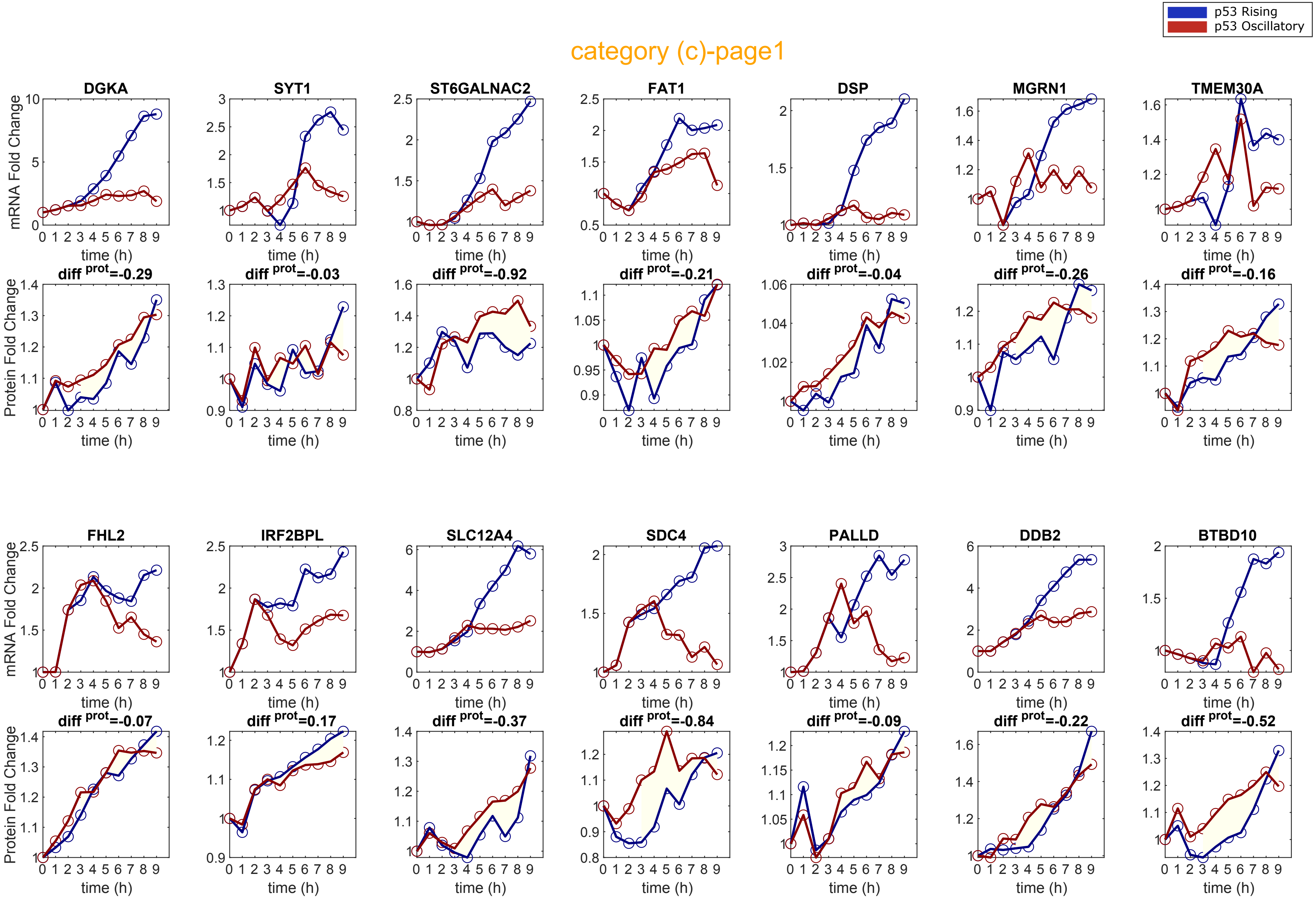
Appendix Figure S3



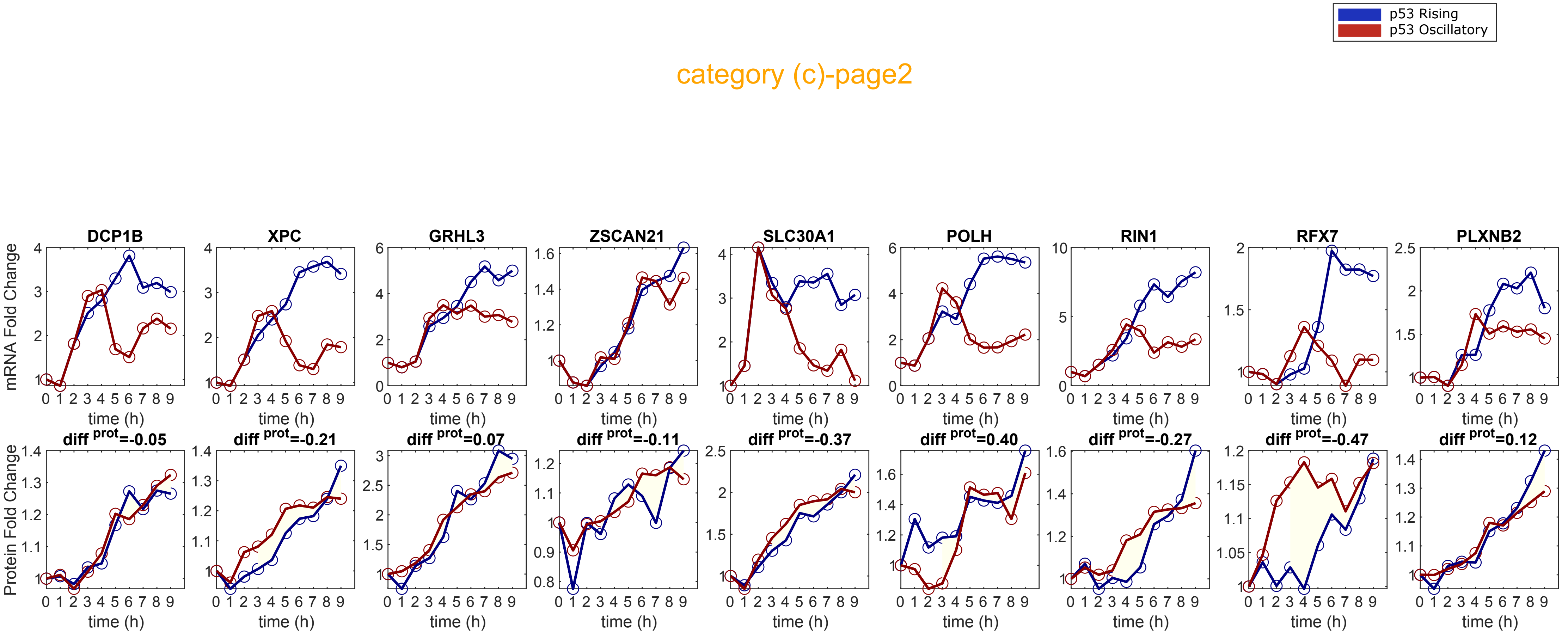
Appendix Figure S3: mRNA and protein profiles of all targets classified into 11 categories (a-k) of dynamical responses as defined in Figure 4.


p53 Rising
p53 Oscillatory
category (b)
ITGA3
RRM2B
TRAF4
TIGAR
ARVCF
BBC3
KLF3
mRNA Fold Change
time (h)
diff ^{prot}=0.31
diff ^{prot}=0.62
diff ^{prot}=0.67
diff ^{prot}=0.45
diff ^{prot}=0.65
diff ^{prot}=1.64
diff ^{prot}=0.66
Protein Fold Change
time (h)
PCNA
ISCU
EPHA2
HSPA4L
IKBIP
EPHB4
mRNA Fold Change
time (h)
diff ^{prot}=0.32
diff ^{prot}=0.26
diff ^{prot}=0.84
diff ^{prot}=0.31
diff ^{prot}=0.37
diff ^{prot}=0.14
Protein Fold Change
time (h)
0 1 2 3 4 5 6 7 8 9

category (c)-page1

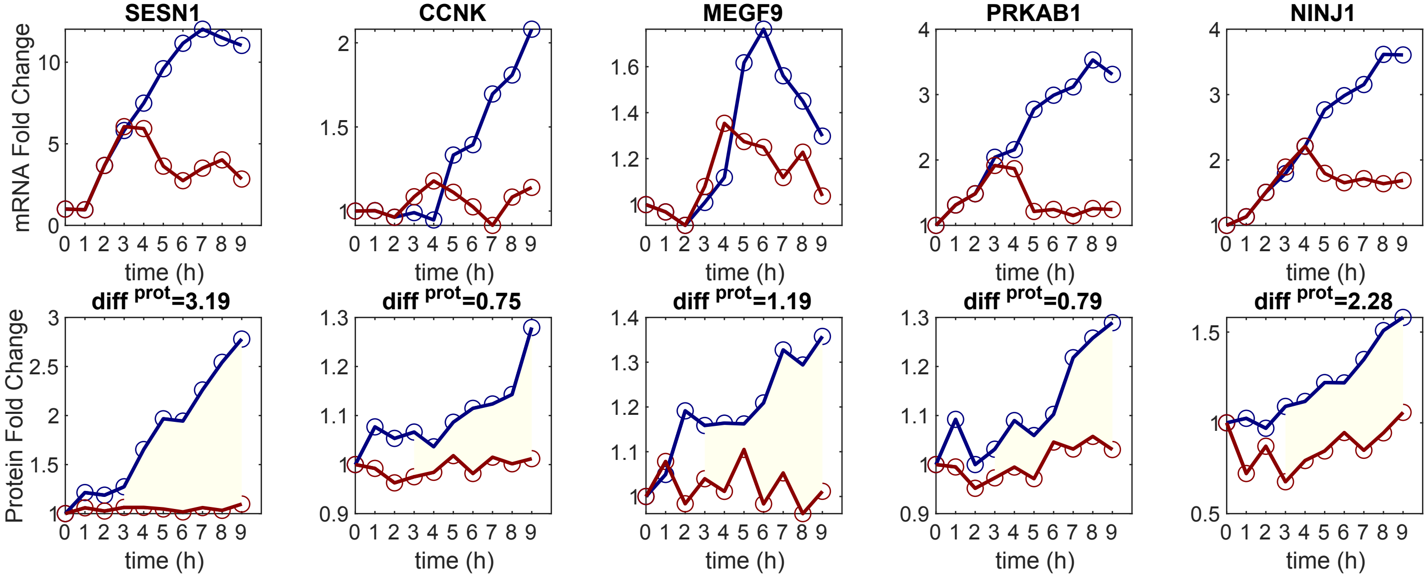


category (c)-page2

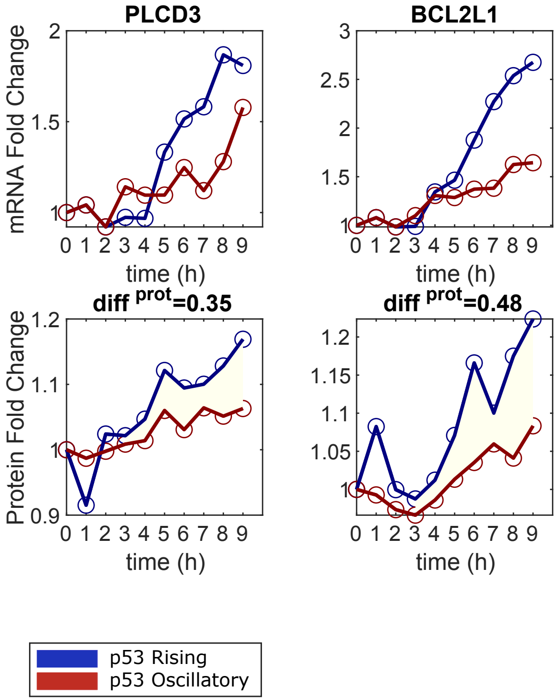


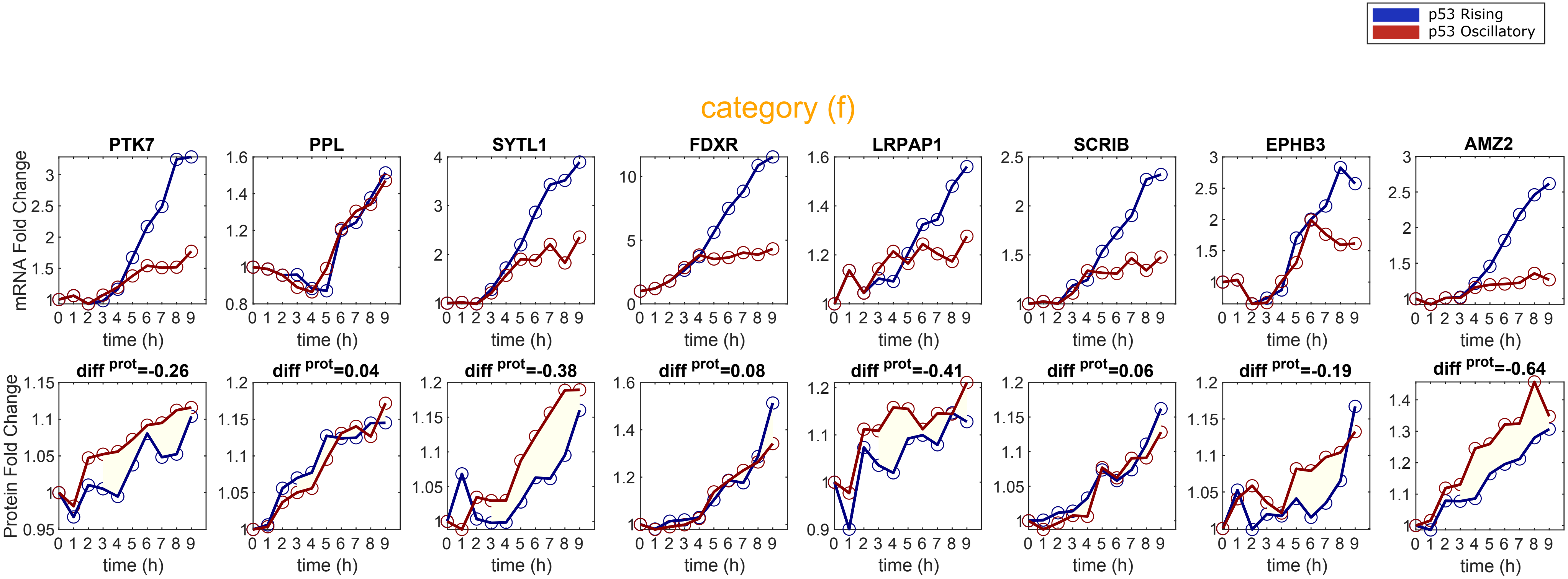
🟦 p53 Rising
🟥 p53 Oscillatory

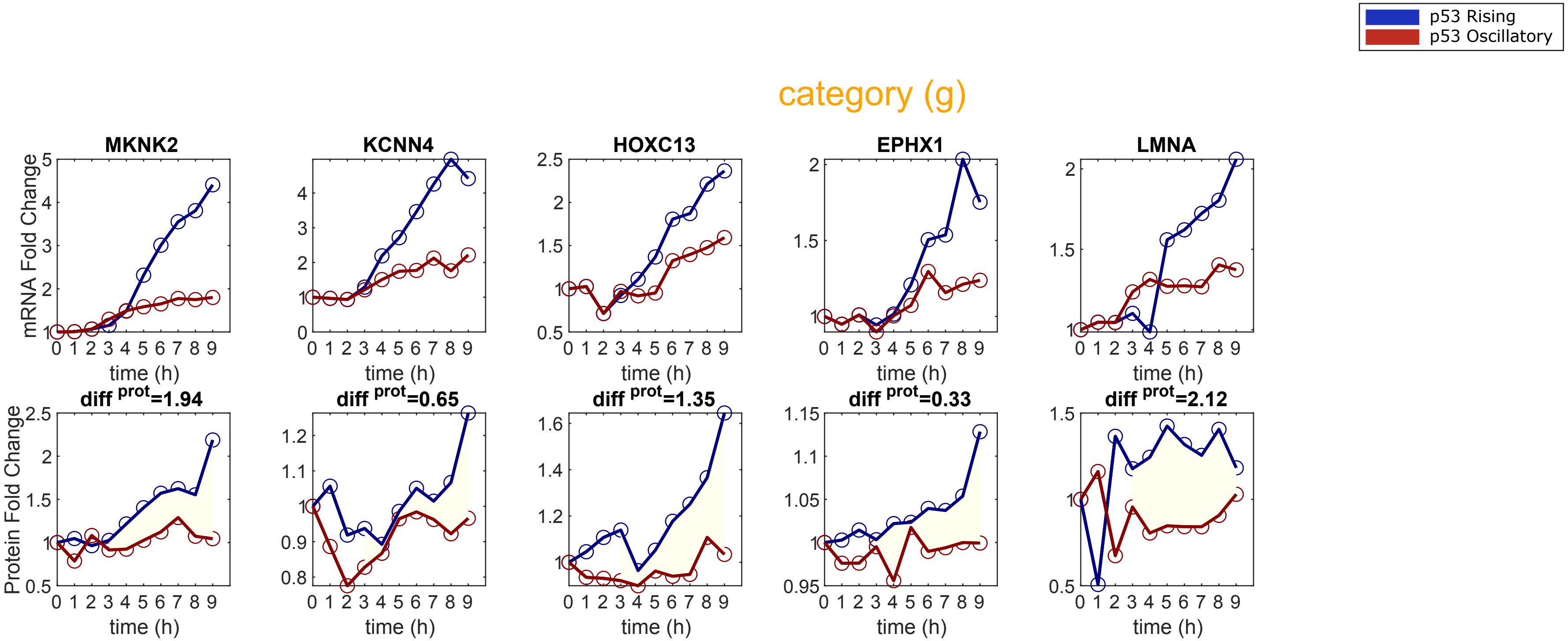
category (d)



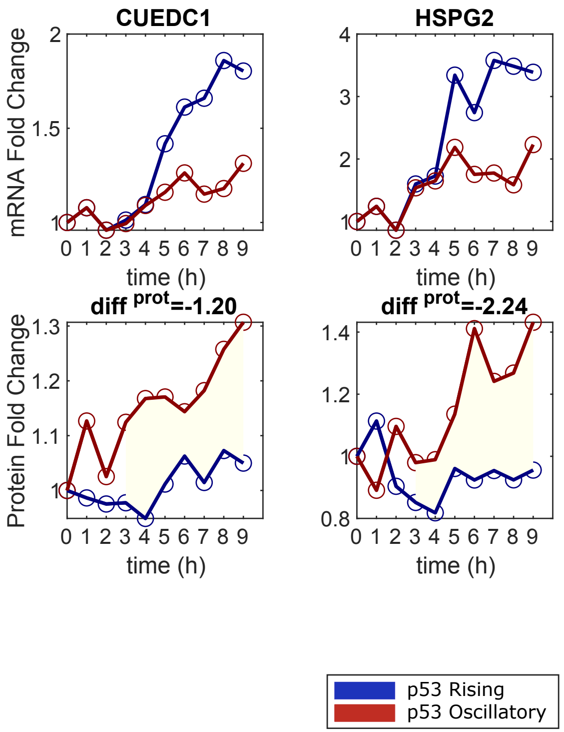
category (e)


PLCD3
BCL2L1
mRNA Fold Change
2
1.5
1
3
2.5
2
1.5
1
0 1 2 3 4 5 6 7 8 9
time (h)
diff prot=0.35
diff prot=0.48
Protein Fold Change
1.2
1.1
1
0.9
1.2
1.15
1.1
1.05
1
0 1 2 3 4 5 6 7 8 9
time (h)
p53 Rising
p53 Oscillatory

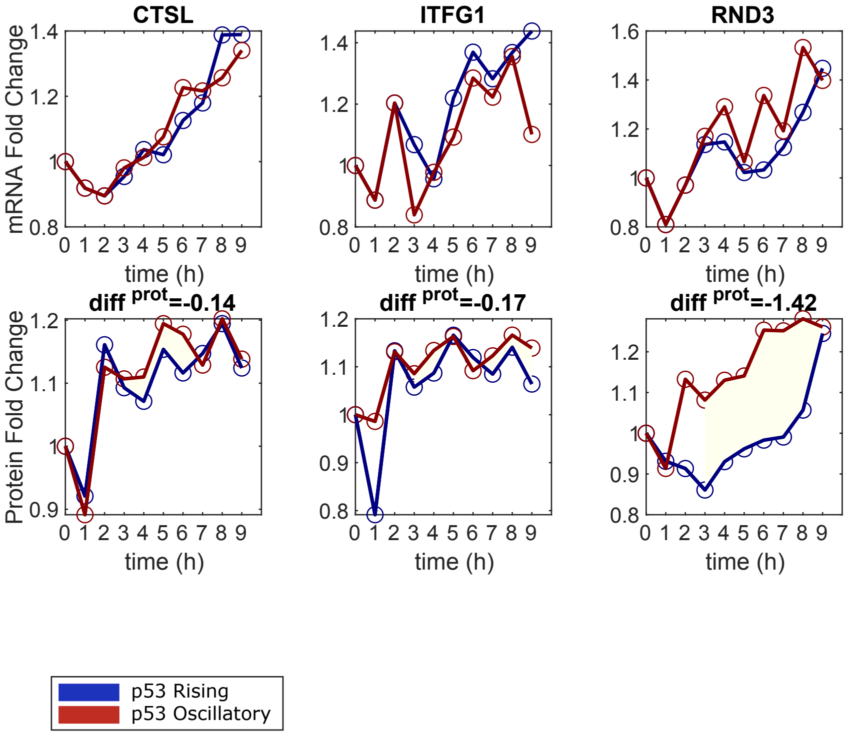
p53 Rising
p53 Oscillatory
category (f)
PTK7
PPL
SYTL1
FDXR
LRPAP1
SCRIB
EPHB3
AMZ2
mRNA Fold Change
Protein Fold Change
time (h)
0 1 2 3 4 5 6 7 8 9
diff ^{prot}=-0.26
diff ^{prot}=0.04
diff ^{prot}=-0.38
diff ^{prot}=0.08
diff ^{prot}=-0.41
diff ^{prot}=0.06
diff ^{prot}=-0.19
diff ^{prot}=-0.64


p53 Rising
p53 Oscillatory
category (g)
MKNK2
KCNN4
HOXC13
EPHX1
LMNA
mRNA Fold Change
Protein Fold Change
time (h)
diff ^{prot}=1.94
diff ^{prot}=0.65
diff ^{prot}=1.35
diff ^{prot}=0.33
diff ^{prot}=2.12
0 1 2 3 4 5 6 7 8 9

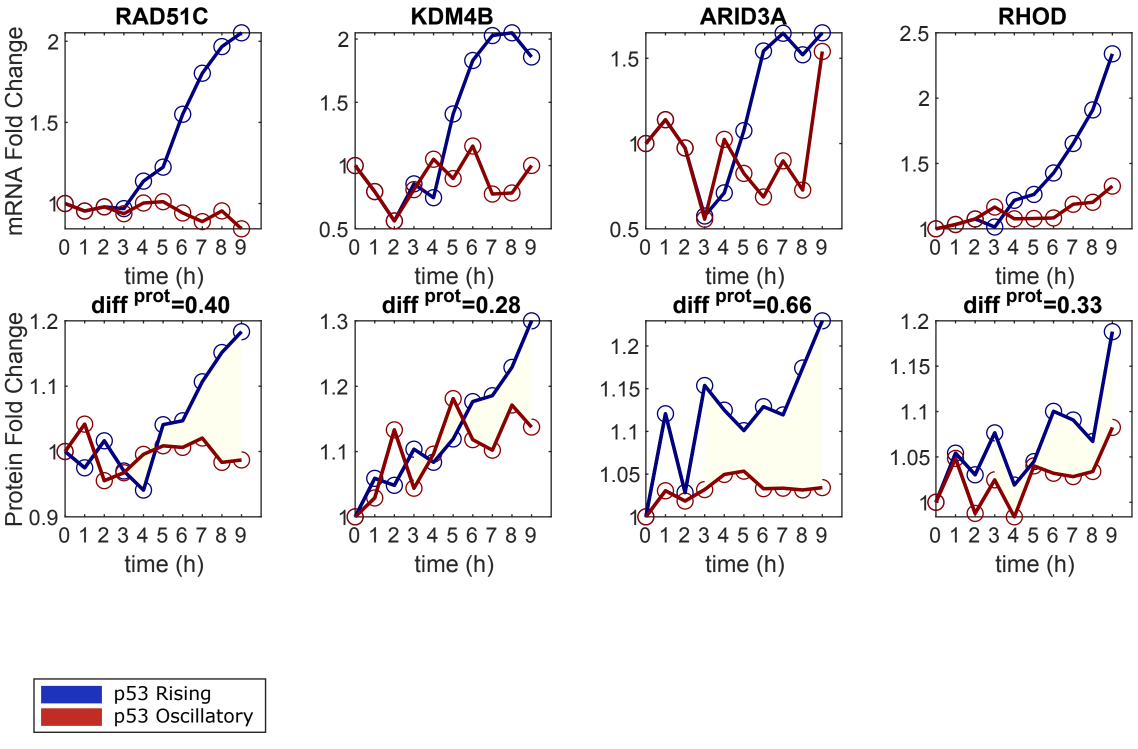
category (h)


CUEDC1
HSPG2
mRNA Fold Change
2
1.5
1
4
3
2
1
0 1 2 3 4 5 6 7 8 9
time (h)
diff ^{prot}=-1.20
diff ^{prot}=-2.24
Protein Fold Change
1.3
1.2
1.1
1
1.4
1.2
1
0.8
p53 Rising
p53 Oscillatory

category (i)


CTSL
ITFG1
RND3
mRNA Fold Change
Protein Fold Change
time (h)
diff ^{prot}=-0.14
diff ^{prot}=-0.17
diff ^{prot}=-1.42
0 1 2 3 4 5 6 7 8 9
0.8
0.9
1
1.1
1.2
1.4
1.6
p53 Rising
p53 Oscillatory

category (j)



RAD51C
KDM4B
ARID3A
RHOD
mRNA Fold Change
time (h)
diff ^{prot}=0.40
diff ^{prot}=0.28
diff ^{prot}=0.66
diff ^{prot}=0.33
Protein Fold Change
time (h)
p53 Rising
p53 Oscillatory