

Figure S1

MVPSFLSLSFS LGLWASGLILVLGFLKLIHLLLRRTLAKAMDKFPGPPTHWLFHGHALEIQETGSLD
MLGFLSRLGLWASGLILILGFLKLLRLLLRQRLARAMDSFPGPPTHWLFHGHALEIQKTGSLD

KVVSWAHQFPYAHPLWFGQFIGFLNIYEPDYAKAVYSRGDPKAPDVYDFFLQWIGRGLLVLEGPKWLQ
KVVTTWTTQFPYAHPLWVGQFIGFLNIYEPDYAKAVYSRGDPKAPDVYDFFLQWIGKGLLVLDGPKWFQ

HRKLLTPGFHYDVLKPYVAVFTESTRIMLDKWEKAREGKSFDIFCDVGHMALNTLMKCTFGRGDTGL
HRKLLTPGFHYDVLKPYVAIFADSTRIMLEKWEKKACEGKSFDIFSDVGHMALDNTLMKCTFGKDSGL

GHRDSSYYLAVSDLTLLMQORLVSFQYHNDFIYWLTPHGRRFLRACQVAHDHTDQVIRERKAALQDEK
NHRDSSYYVAVSELTLLMQORIDSFQYHNDFIYWLTPHGRRFLRACRAAHHTDRVIRQRKAALQDEK

VRKKIQNRRHLDFLDILLGARDEDDIKLSDADLRAEVDTFMFEGHDTTTSGISWFLYCMALYPEHQHR
EREKIQNRRHLDFLDILLDVRGESGVQLSDTDLRAEVDTFMFEGHDTTTSGISWFLYCMALYPEHQQR

CREEVREILGDQDFFQWDDLKMTYLTMCIKESFRLYPPVPQVYRQLSKPVTFVDGRSLPAGSLISMH
CREEVREILGDQDSFQWEDLAKMTYLTMCMEKCFRLYPPVPQVYRQLSKPVSFVDGRSLPAGSLISLH

427 ↓ ERR triad ↑ ↑ active site

IYALHRNSAVVPDPEVFD SLRFSTENASKRHPFAFMPFSAGPRNCIGQQFAMSEMKVVTAMCLLRFEF
IYALHRNSDVVPDPEVFD PLRFSPENSSGRHPYAFI PFSAGPRNCIGQQFAMNEMKVVTALCLLRFEF

422

SLDPSRLPIKMPQLVLRSKNGFHLHLKPLGPGSGK
SVDPLRLPIKLPQLVLRSKNGIHLYLKPLGPK

human
rabbit

=> 85% identical

Figure S2

Meander region:

	PcxFx PE+a
human	PEVFD S LRF ↓
rabbit	PEVFD P LRF
cat	SEVFD P LRF
chimpanzee	PEVFD P LRF
cow	PEVFD P LRF
elephant	PEVFD P LRF
gorilla	--VFD P LRF
hedgehog	PEVFD P LRF
medaka	PEVFD P LRF
mouse	PEVFD P LRF
opossum	PEVFD P QRF
Orangutan	PEVFD P LRF
pig	PEVFD P LRF
platypus	PEVFD P LRF
rat	PEVFD P LRF
stickleback	PNVFD P LRF
wallaby	PEMFD P QRF
hCYP4A11	PEVFD P FRF
hCYP4A22	LEVFD P SRF
hCYP4F2	PEVYD P FRF
hCYP4F3	PEVYD P FRF
hCYP4F8	PEVYD P FRF
hCYP4F11	PEVYD P FRF
hCYP4F12	PEVYD P FRF
hCYP4F22	SKVYN P YRF
hCYP4V2	PEEFQ P ERF
hCYP4X1	PKVFD P LRF
hCYP4Z1	PQVFN P LRF

**CYP4B1
isoforms of
different
species**

**human
CYP450
family 4**

hCYP1A1	PSEFL P ERF
hCYP1A2	PSEFR P ERF
hCYP1B1	PQEFN P EHF
hCYP2A6	PQDFN P QHF
hCYP2A13	PQDCS P QHF
hCYP2A7	PRDFN P QHF
hCYP2B6	PDAFN P DHF
hCYP2F1	PQEFN P EHF
hCYP2C9	PEMFD P HHF
hCYP2C19	PEMFD P RHF
hCYP2C18	PEMFD P GHF
hCYP2C8	PNIFD P GHF
hCYP2E1	PEKFK P EHF
hCYP2S1	PEE FN P DRF
hCYP2D6	PFRFH P EHF
hCYP2W1	PGQFN P GHF
hCYP2J2	PDTFN P DHF
hCYP3A4	PEKFL P ERF
hCYP3A7	PEKFL P ERF
hCYP3A5	PEE FR P ERF
hCYP3A43	PEKFC P ERF
hCYP5A1	PETFN P ERF
hCYP26A1	KEE FN P DRF
hCYP26B1	VNVFD P DRF
hCYP11B1	PERYN P QRW
hCYP11B2	PERYN P QRW
hCYP11A1	PENFD P TRW

**other human
P450 enzymes**

Figure S3

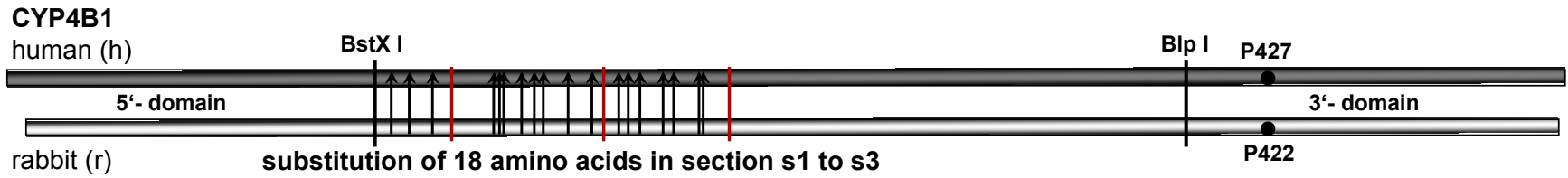
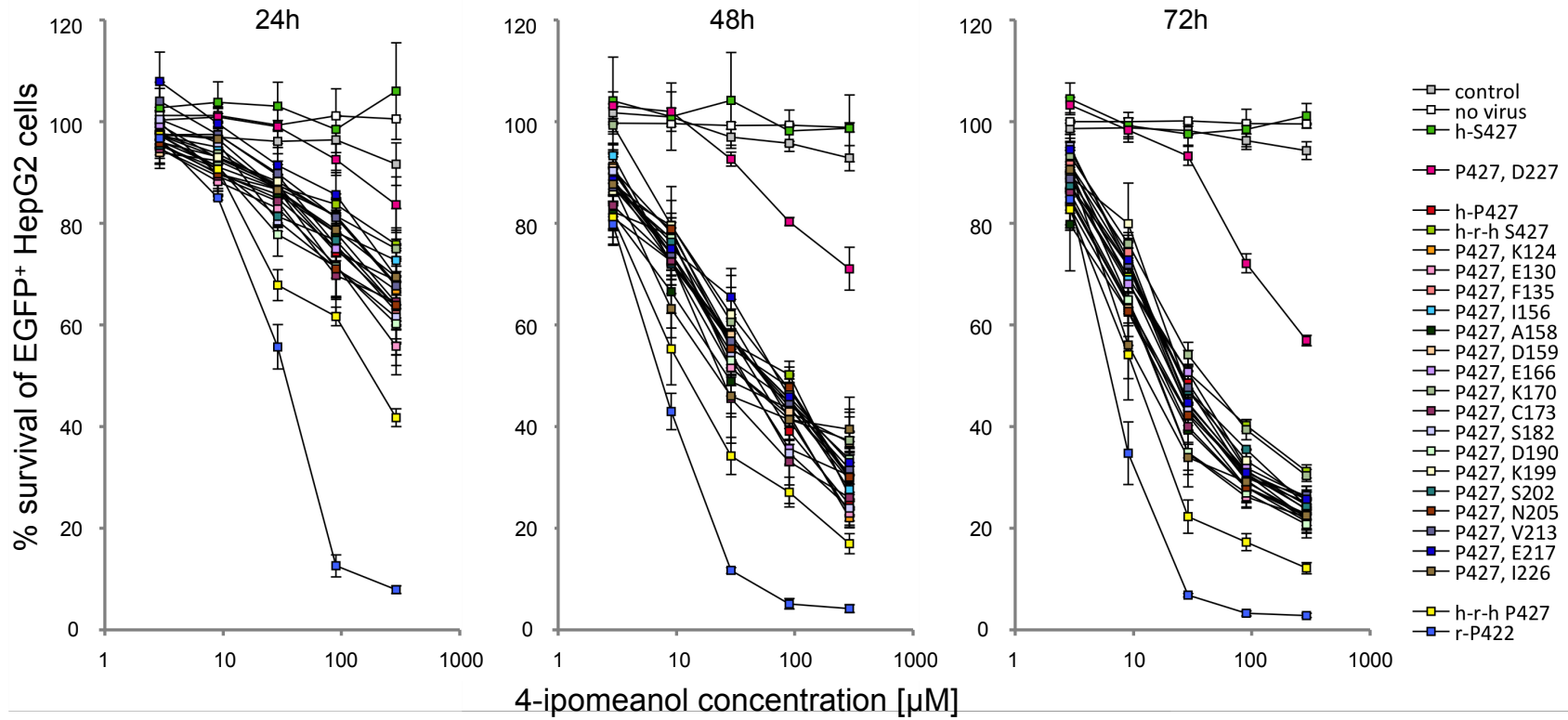


Figure S4 - Statistical analysis for Figure 2

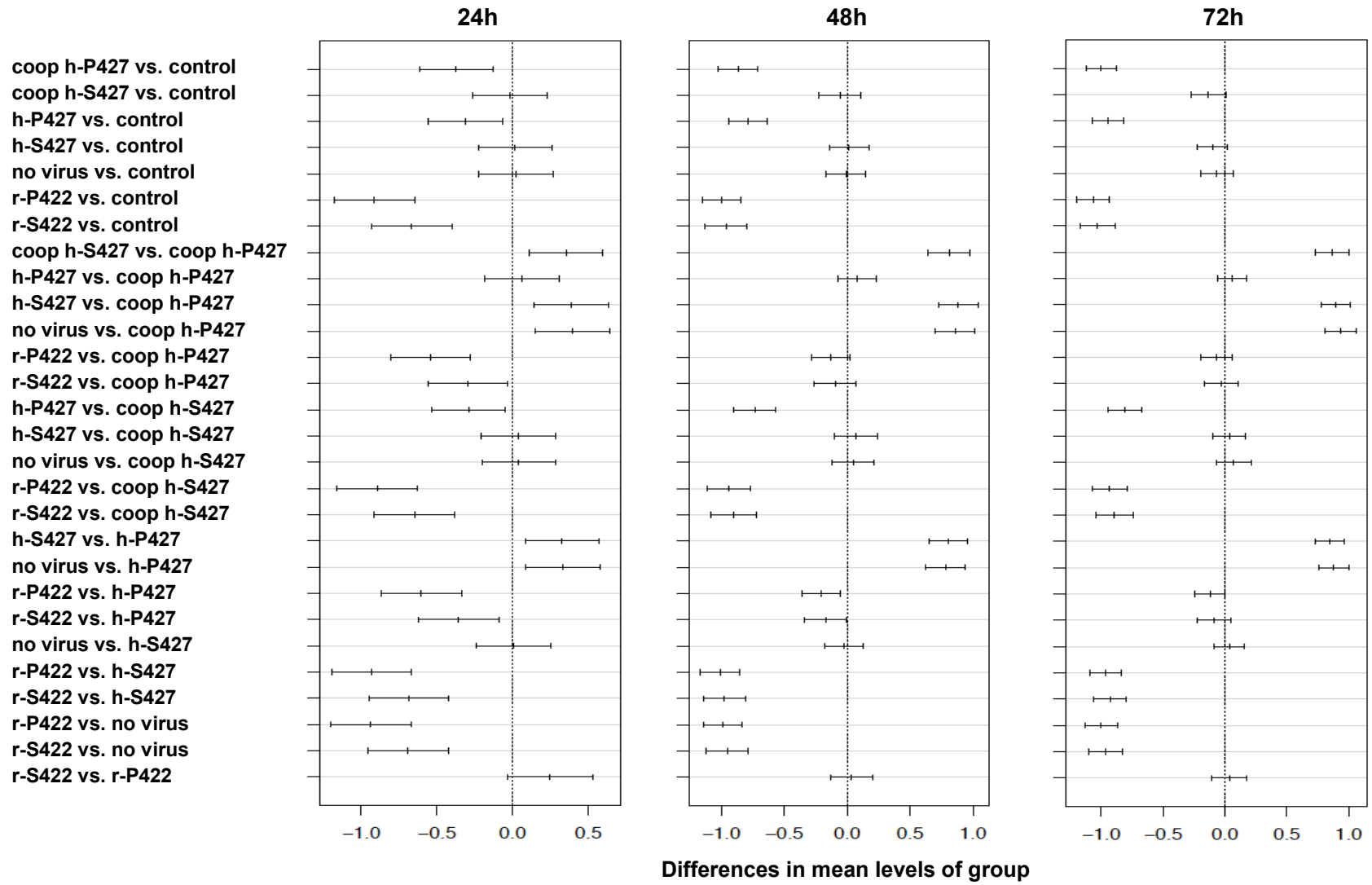


Figure S5 - Statistical analysis for Figure 3A

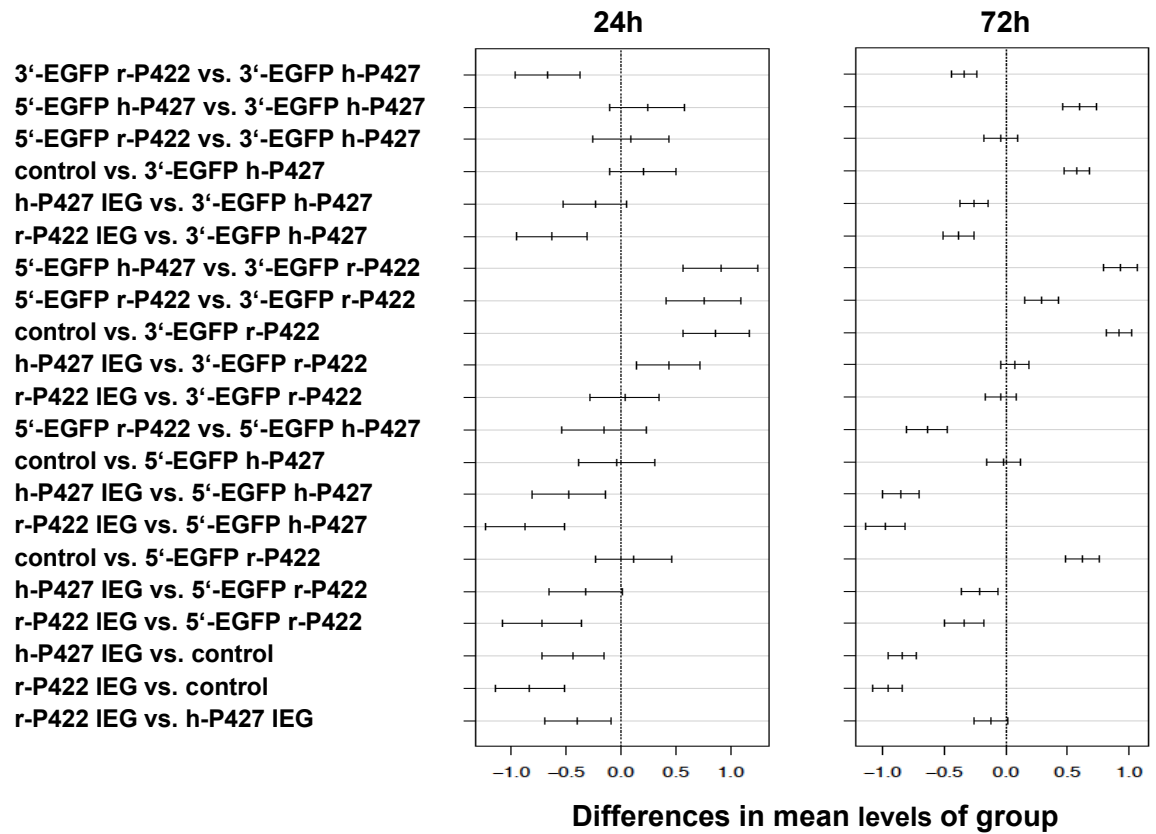


Figure S6 - Statistical analysis for Figure 4A

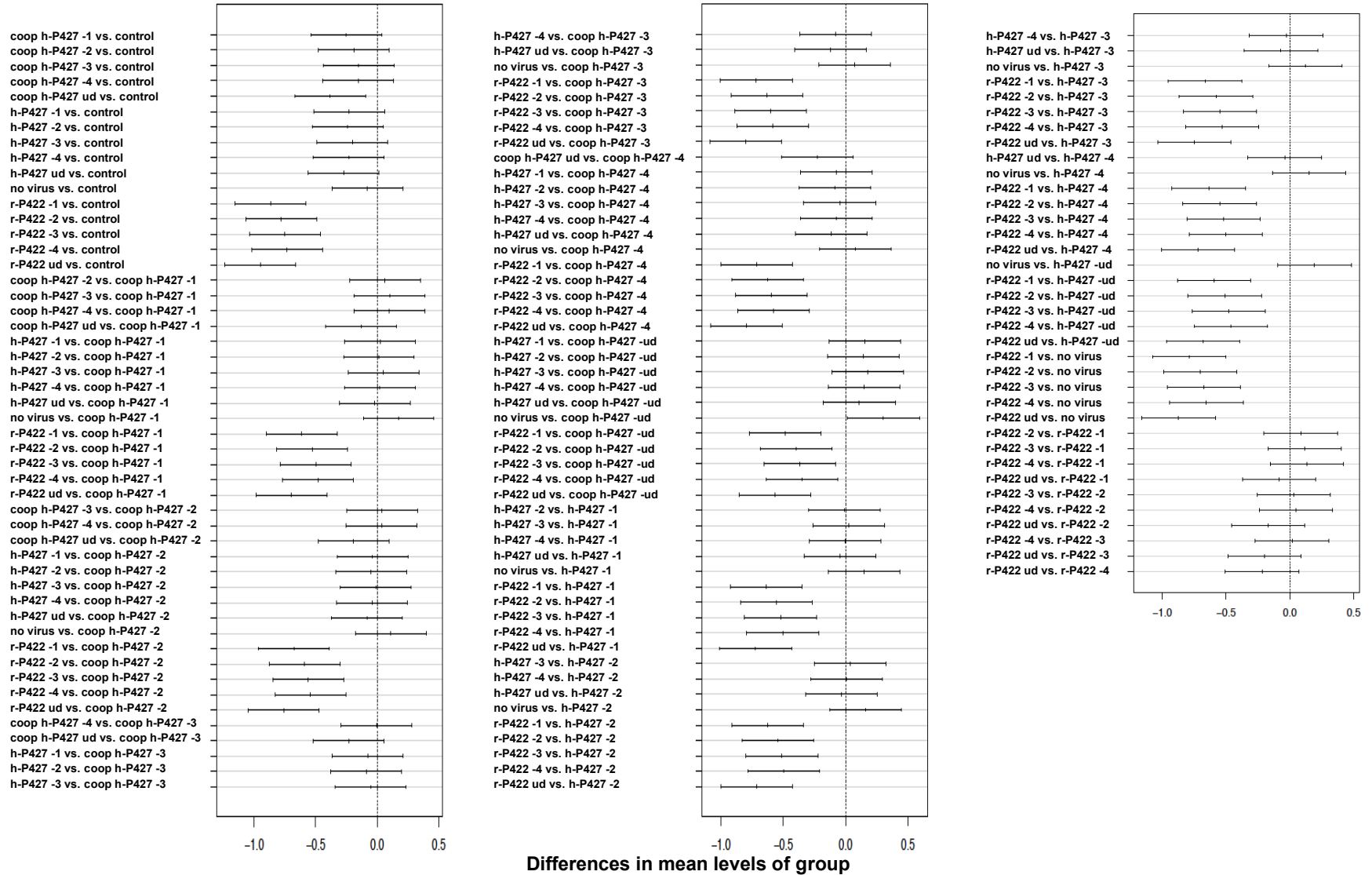


Figure S7 - Statistical analysis for Figure 5A (24h)

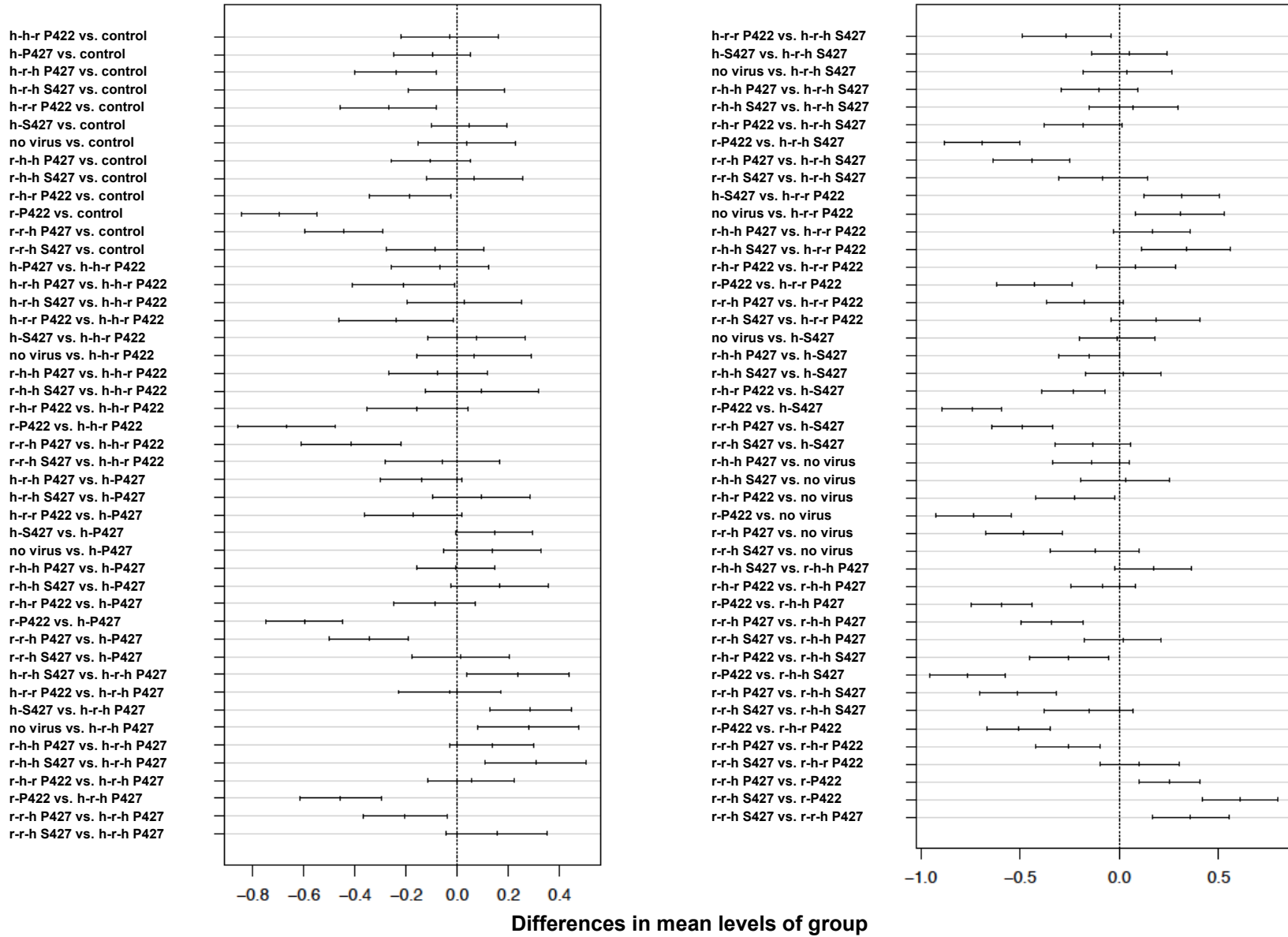


Figure S8 - Statistical analysis for Figure 5A (48h)

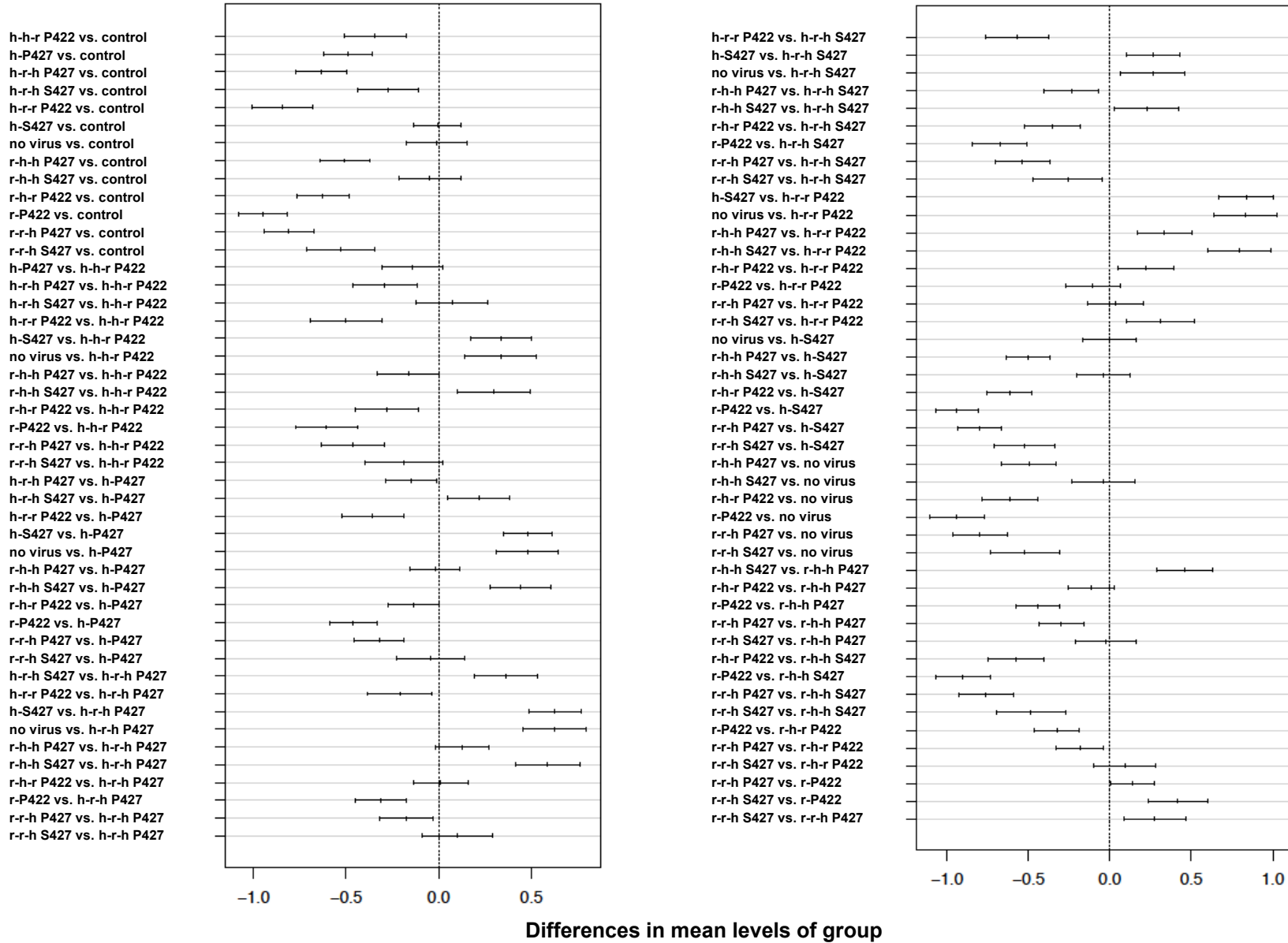


Figure S9 - Statistical analysis for Figure 5A (72h)

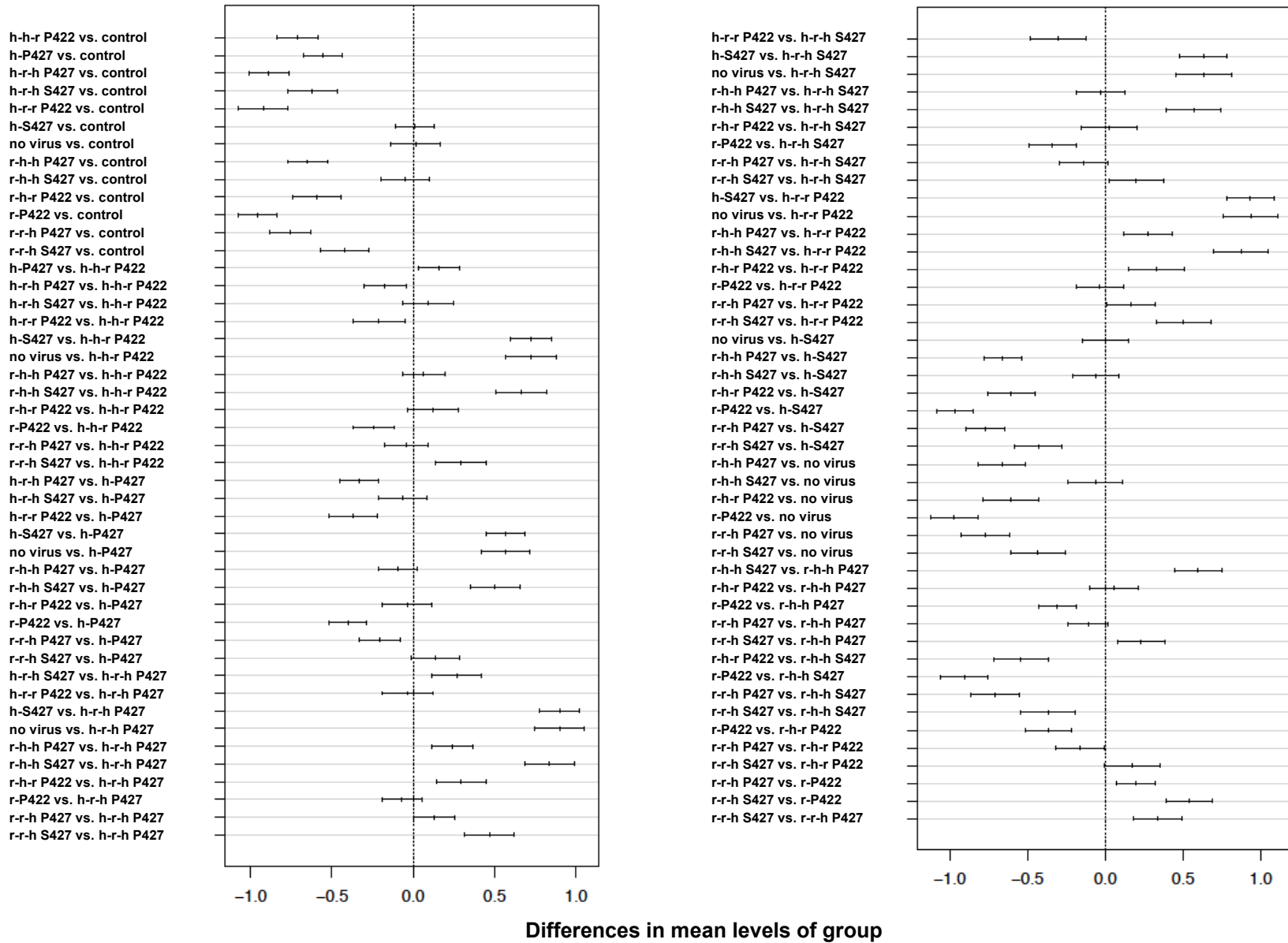


Figure S10 - Statistical analysis for Figure 5B (24h)

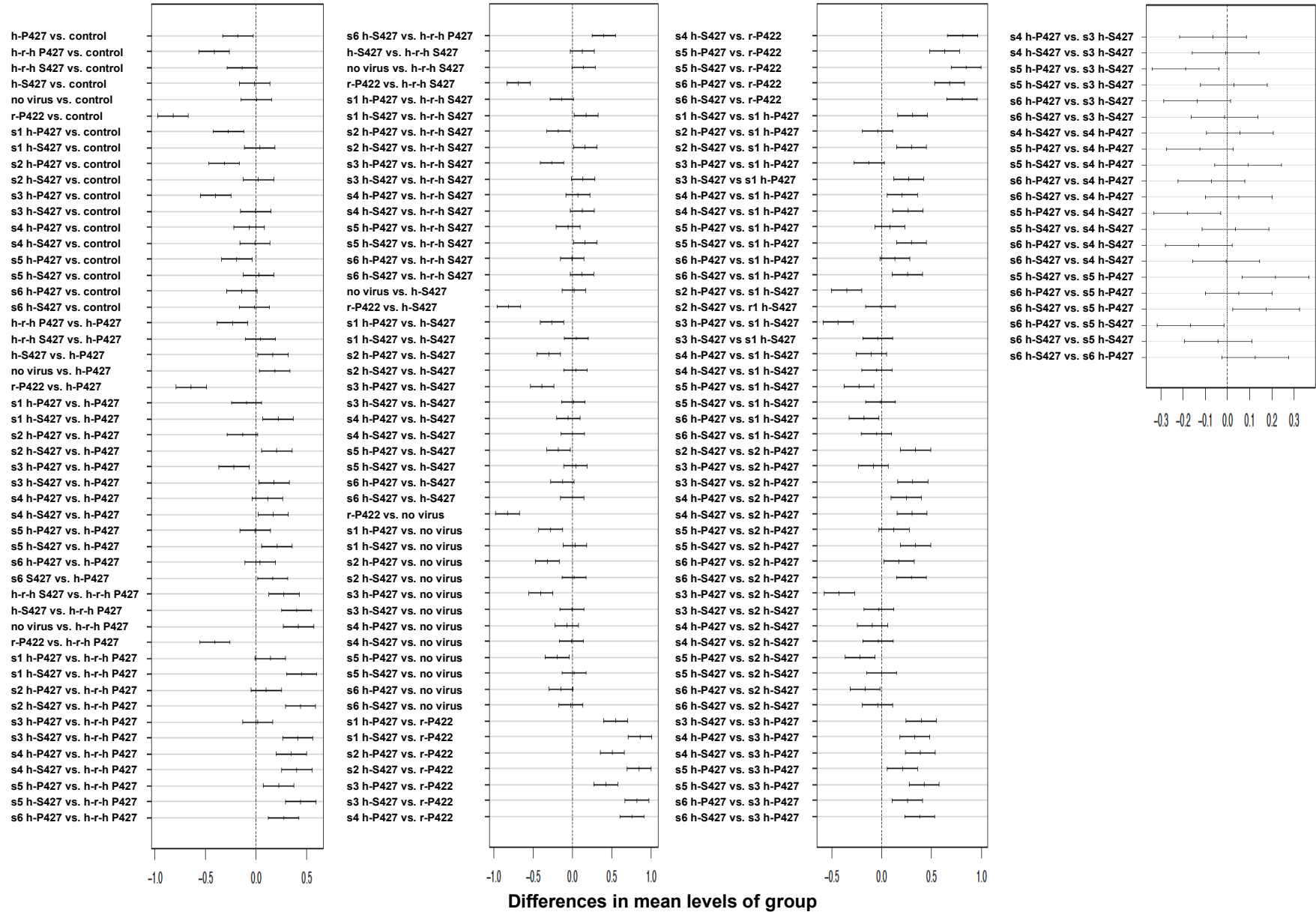


Figure S11 - Statistical analysis for Figure 5B (48h)

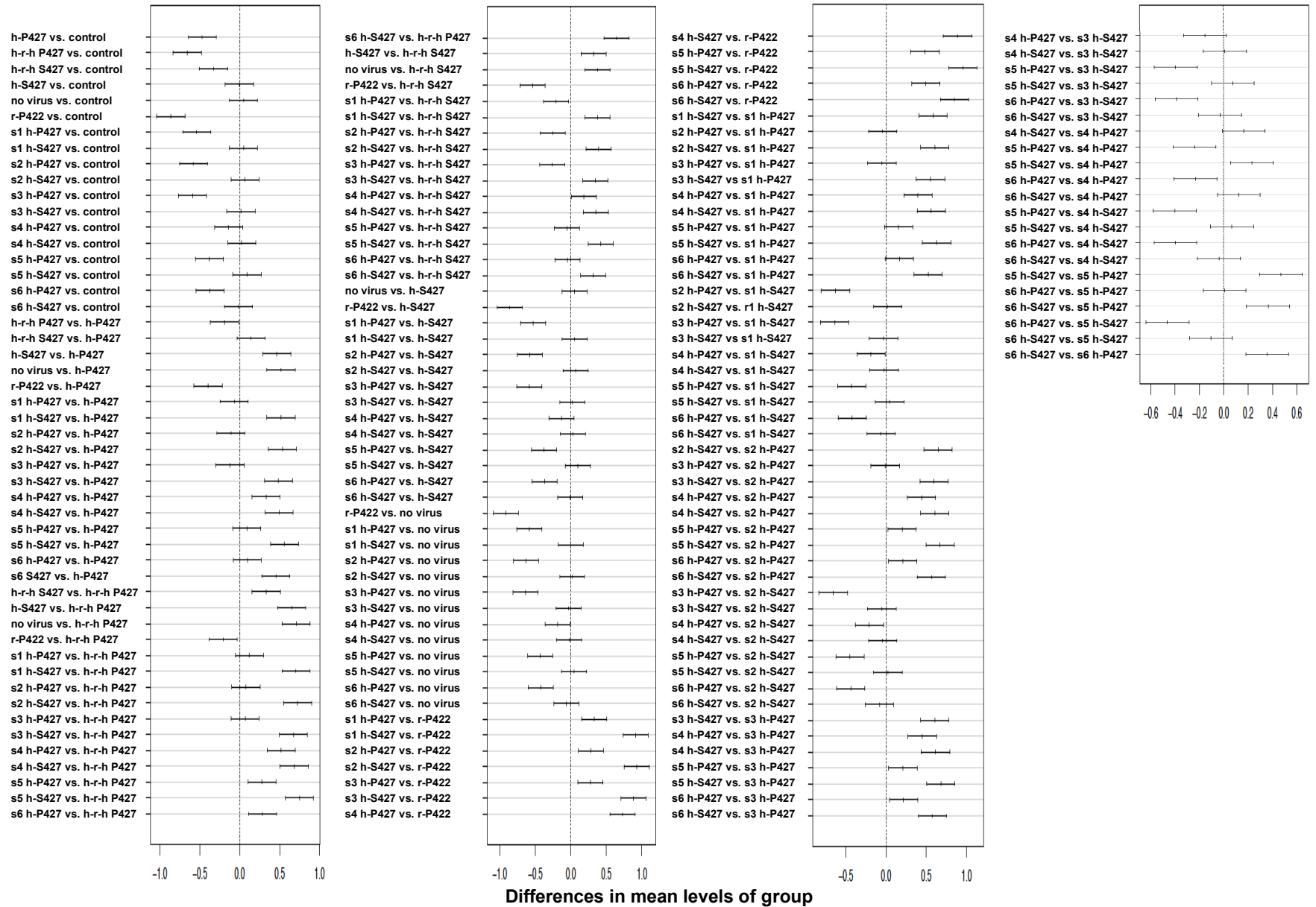


Figure S12 - Statistical analysis for Figure 5B (72h)

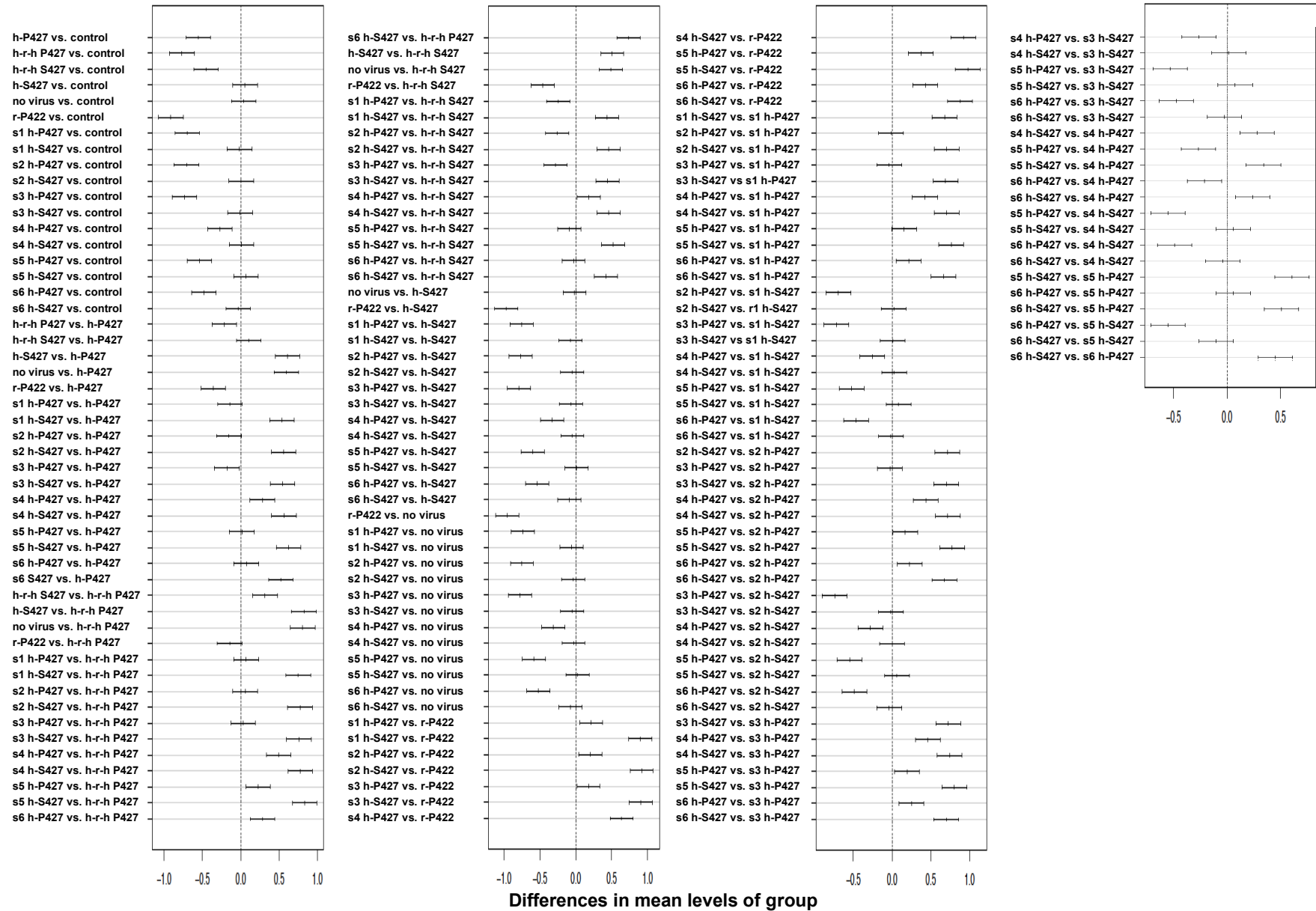


Figure S13 - Statistical analysis for Figure 5C (24h)

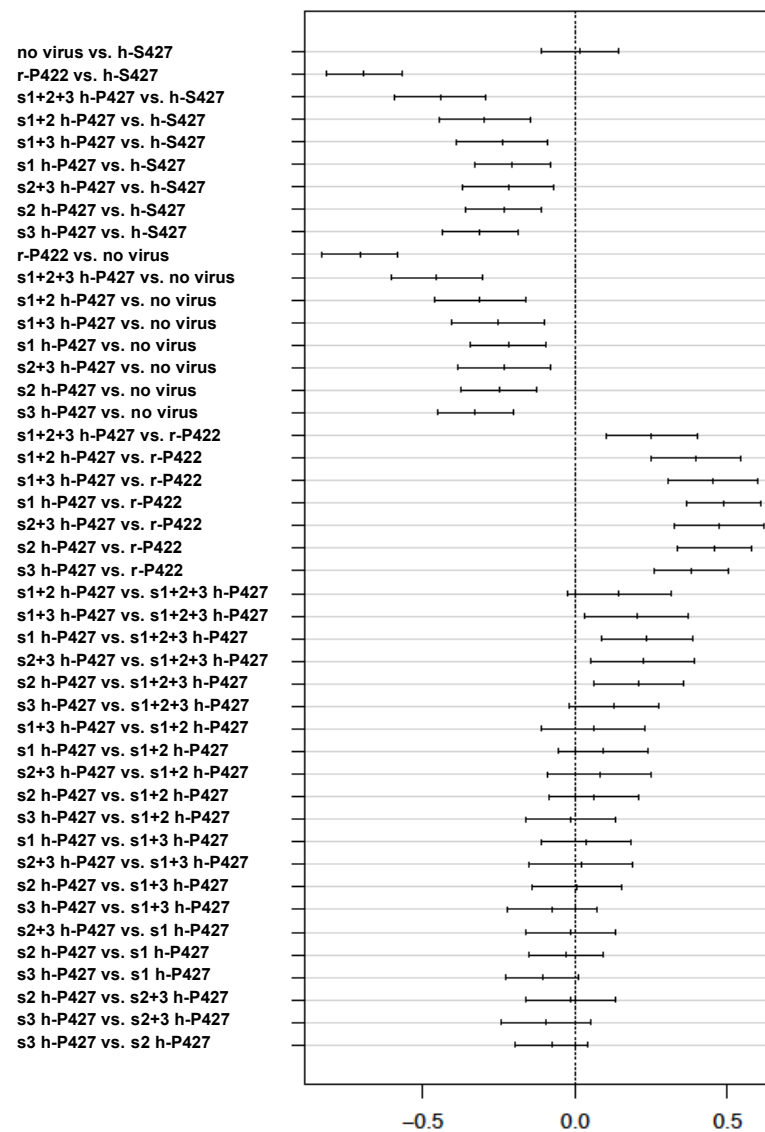
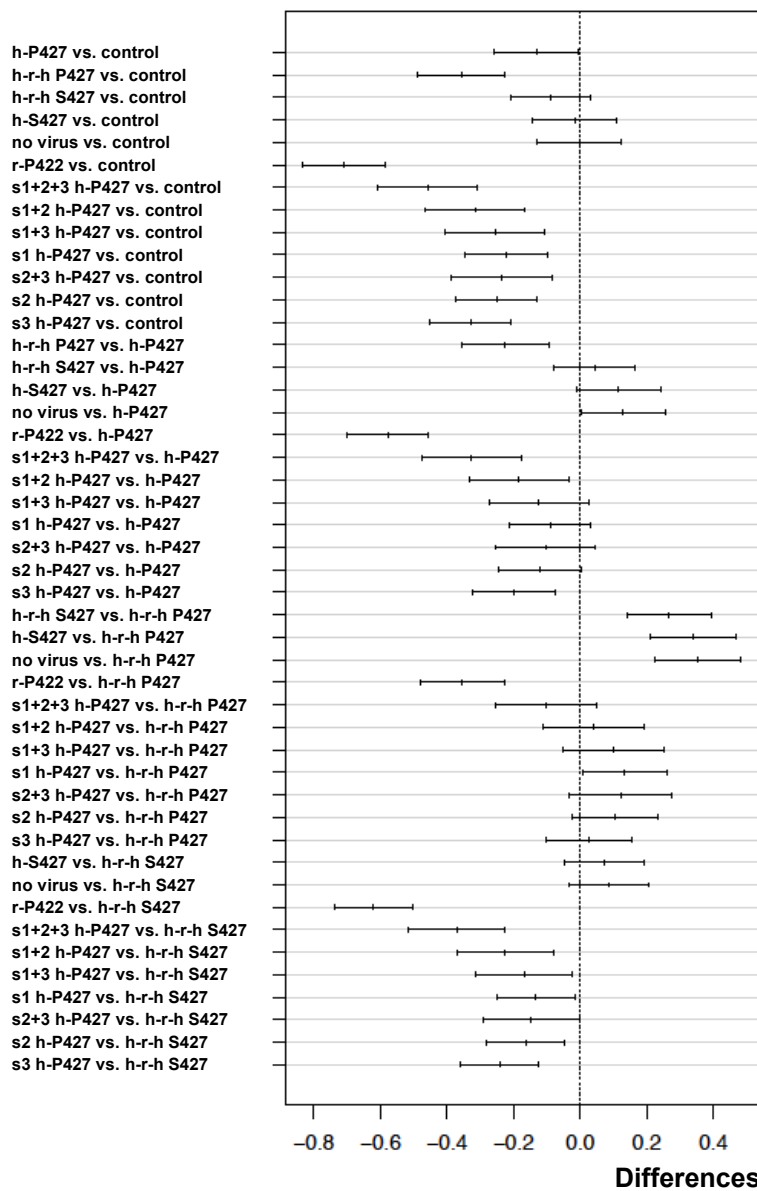
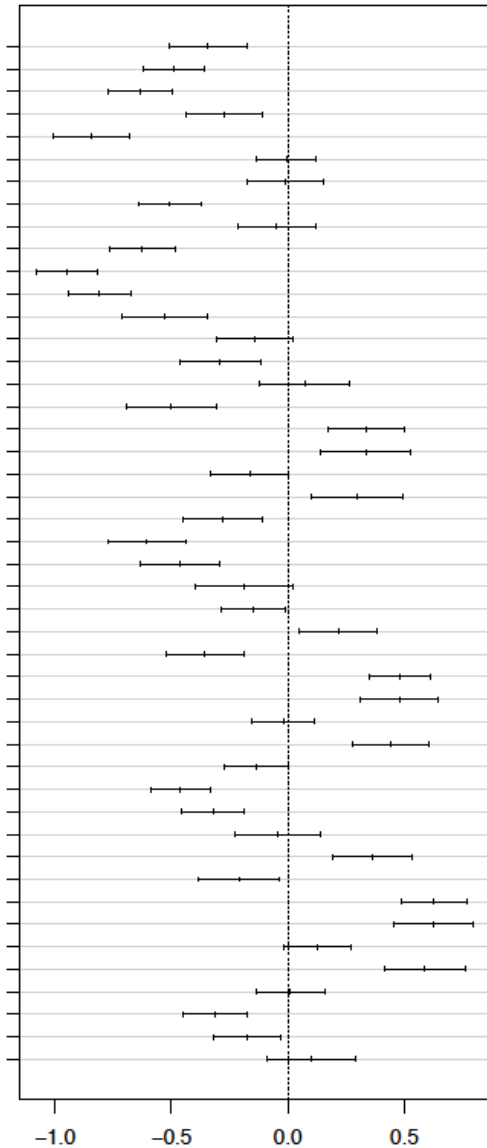


Figure S14 - Statistical analysis for Figure 5C (48h)

h-P427 vs. control
 h-r-h P427 vs. control
 h-r-h S427 vs. control
 h-S427 vs. control
 no virus vs. control
 r-P422 vs. control
 s1+2+3 h-P427 vs. control
 s1+2 h-P427 vs. control
 s1+3 h-P427 vs. control
 s1 h-P427 vs. control
 s2+3 h-P427 vs. control
 s2 h-P427 vs. control
 s3 h-P427 vs. control
 h-r-h P427 vs. h-P427
 h-r-h S427 vs. h-P427
 h-S427 vs. h-P427
 no virus vs. h-P427
 r-P422 vs. h-P427
 s1+2+3 h-P427 vs. h-P427
 s1+2 h-P427 vs. h-P427
 s1+3 h-P427 vs. h-P427
 s1 h-P427 vs. h-P427
 s2+3 h-P427 vs. h-P427
 s2 h-P427 vs. h-P427
 s3 h-P427 vs. h-P427
 h-r-h S427 vs. h-r-h P427
 h-S427 vs. h-r-h P427
 no virus vs. h-r-h P427
 r-P422 vs. h-r-h P427
 s1+2+3 h-P427 vs. h-r-h P427
 s1+2 h-P427 vs. h-r-h P427
 s1+3 h-P427 vs. h-r-h P427
 s1 h-P427 vs. h-r-h P427
 s2+3 h-P427 vs. h-r-h P427
 s2 h-P427 vs. h-r-h P427
 s3 h-P427 vs. h-r-h P427
 h-S427 vs. h-r-h S427
 no virus vs. h-r-h S427
 r-P422 vs. h-r-h S427
 s1+2+3 h-P427 vs. h-r-h S427
 s1+2 h-P427 vs. h-r-h S427
 s1+3 h-P427 vs. h-r-h S427
 s1 h-P427 vs. h-r-h S427
 s2+3 h-P427 vs. h-r-h S427
 s2 h-P427 vs. h-r-h S427
 s3 h-P427 vs. h-r-h S427



no virus vs. h-S427
 r-P422 vs. h-S427
 s1+2+3 h-P427 vs. h-S427
 s1+2 h-P427 vs. h-S427
 s1+3 h-P427 vs. h-S427
 s1 h-P427 vs. h-S427
 s2+3 h-P427 vs. h-S427
 s2 h-P427 vs. h-S427
 s3 h-P427 vs. h-S427
 r-P422 vs. no virus
 s1+2+3 h-P427 vs. no virus
 s1+2 h-P427 vs. no virus
 s1+3 h-P427 vs. no virus
 s1 h-P427 vs. no virus
 s2+3 h-P427 vs. no virus
 s2 h-P427 vs. no virus
 s3 h-P427 vs. no virus
 s1+2+3 h-P427 vs. r-P422
 s1+2 h-P427 vs. r-P422
 s1+3 h-P427 vs. r-P422
 s1 h-P427 vs. r-P422
 s2+3 h-P427 vs. r-P422
 s2 h-P427 vs. r-P422
 s3 h-P427 vs. r-P422
 s1+2 h-P427 vs. s1+2+3 h-P427
 s1+3 h-P427 vs. s1+2+3 h-P427
 s1 h-P427 vs. s1+2+3 h-P427
 s2+3 h-P427 vs. s1+2+3 h-P427
 s2 h-P427 vs. s1+2+3 h-P427
 s3 h-P427 vs. s1+2+3 h-P427
 s1+3 h-P427 vs. s1+2 h-P427
 s1 h-P427 vs. s1+2 h-P427
 s2+3 h-P427 vs. s1+2 h-P427
 s2 h-P427 vs. s1+2 h-P427
 s3 h-P427 vs. s1+2 h-P427
 s1 h-P427 vs. s1+3 h-P427
 s2+3 h-P427 vs. s1+3 h-P427
 s2 h-P427 vs. s1+3 h-P427
 s3 h-P427 vs. s1+3 h-P427
 s2+3 h-P427 vs. s1 h-P427
 s2 h-P427 vs. s1 h-P427
 s3 h-P427 vs. s1 h-P427
 s2 h-P427 vs. s2+3 h-P427
 s3 h-P427 vs. s2+3 h-P427
 s3 h-P427 vs. s2 h-P427

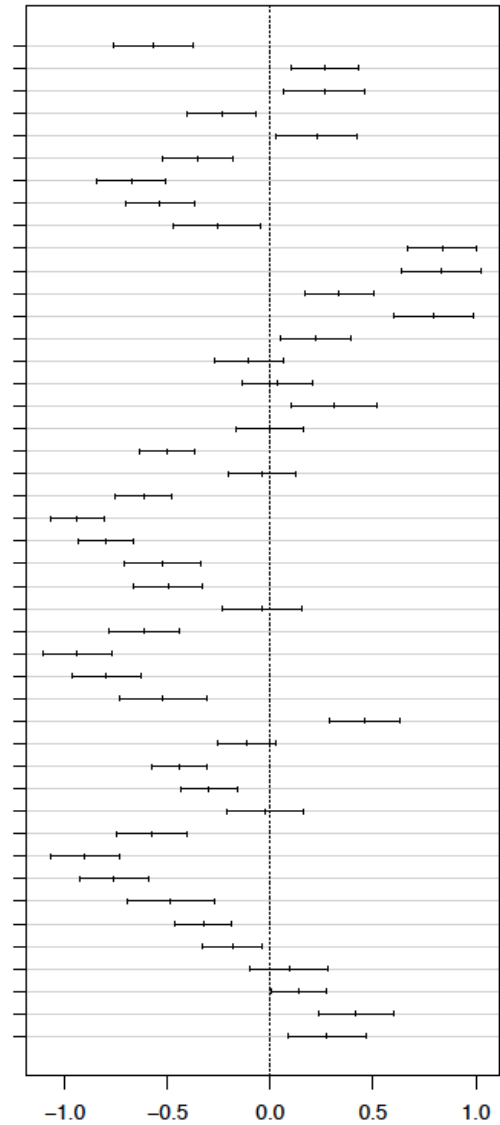


Figure S15 - Statistical analysis for Figure 5C (72h)

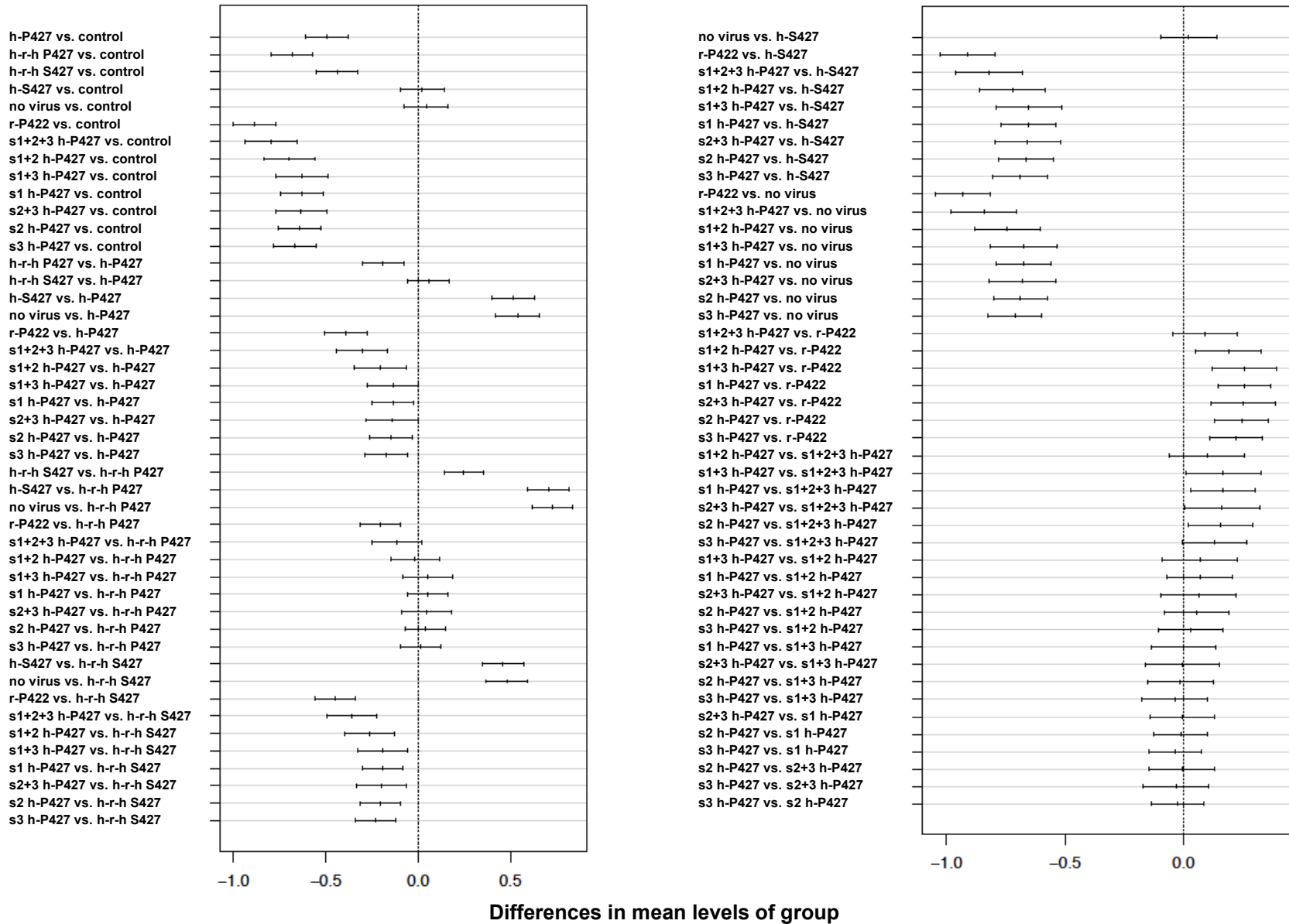


Figure S16 - Statistical analysis for Figure 6B

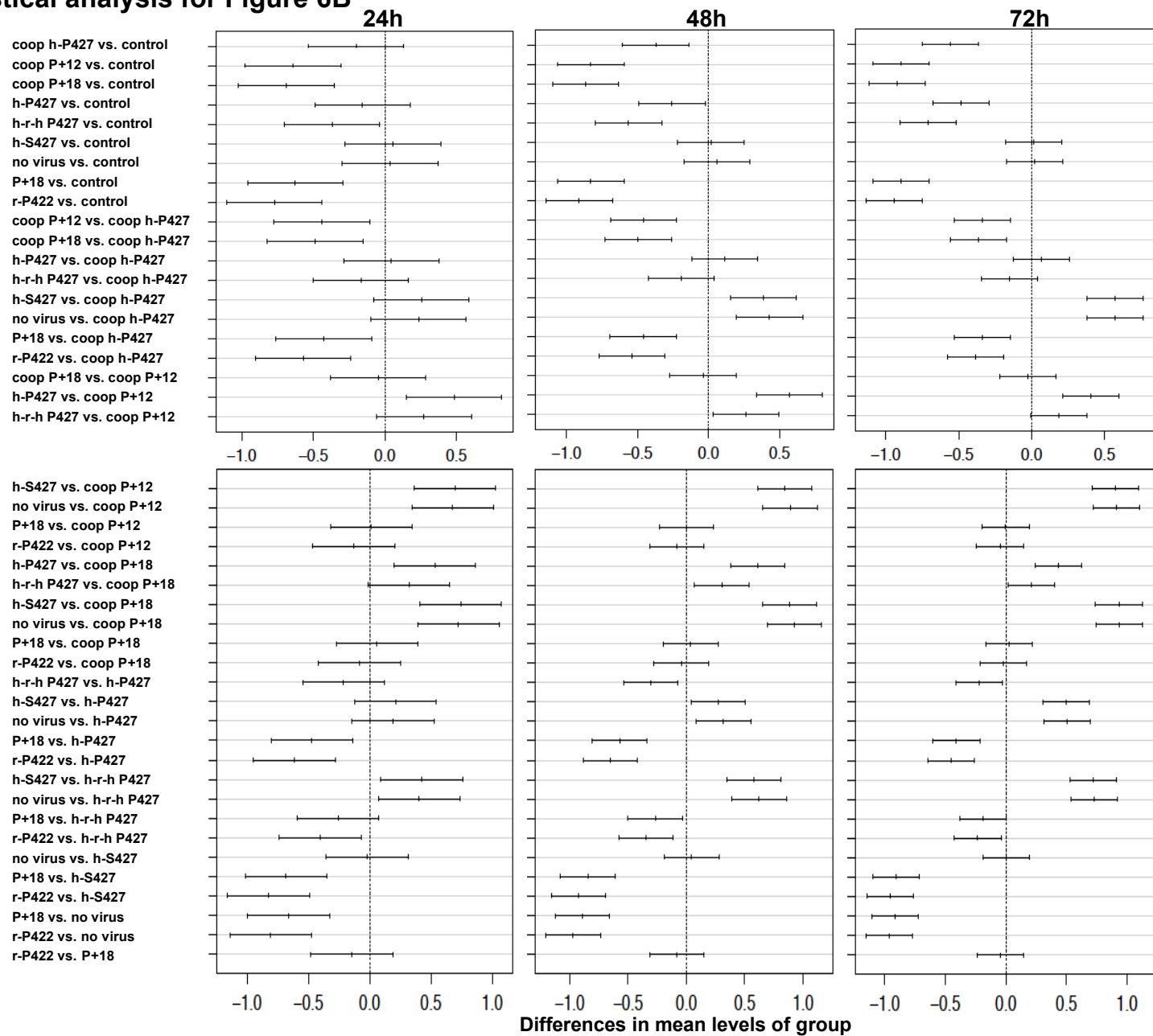


Figure S17 - Statistical analysis for Figure 8

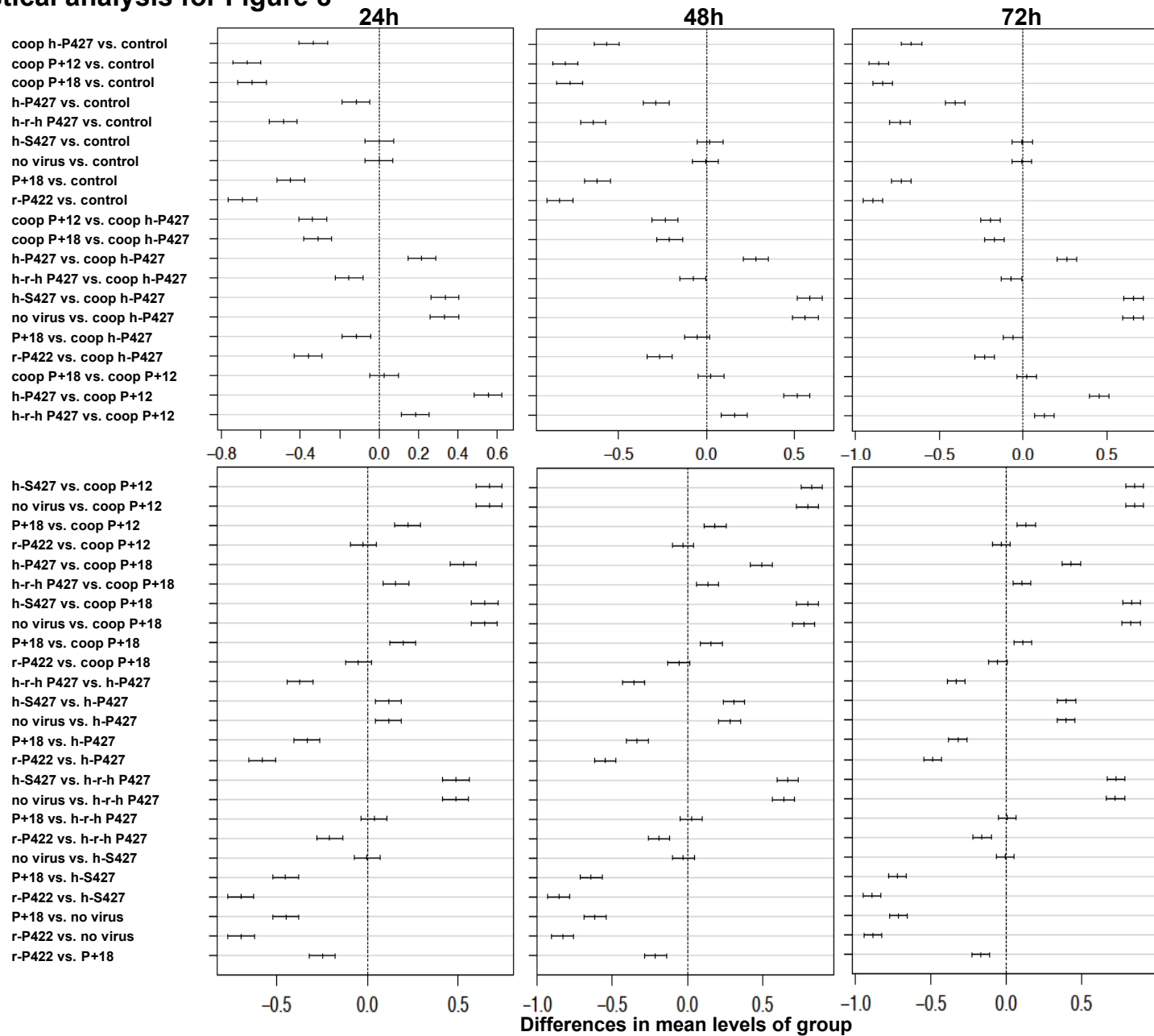


Figure S18 - Statistical analysis for Figure S3 (24h) - 1/2

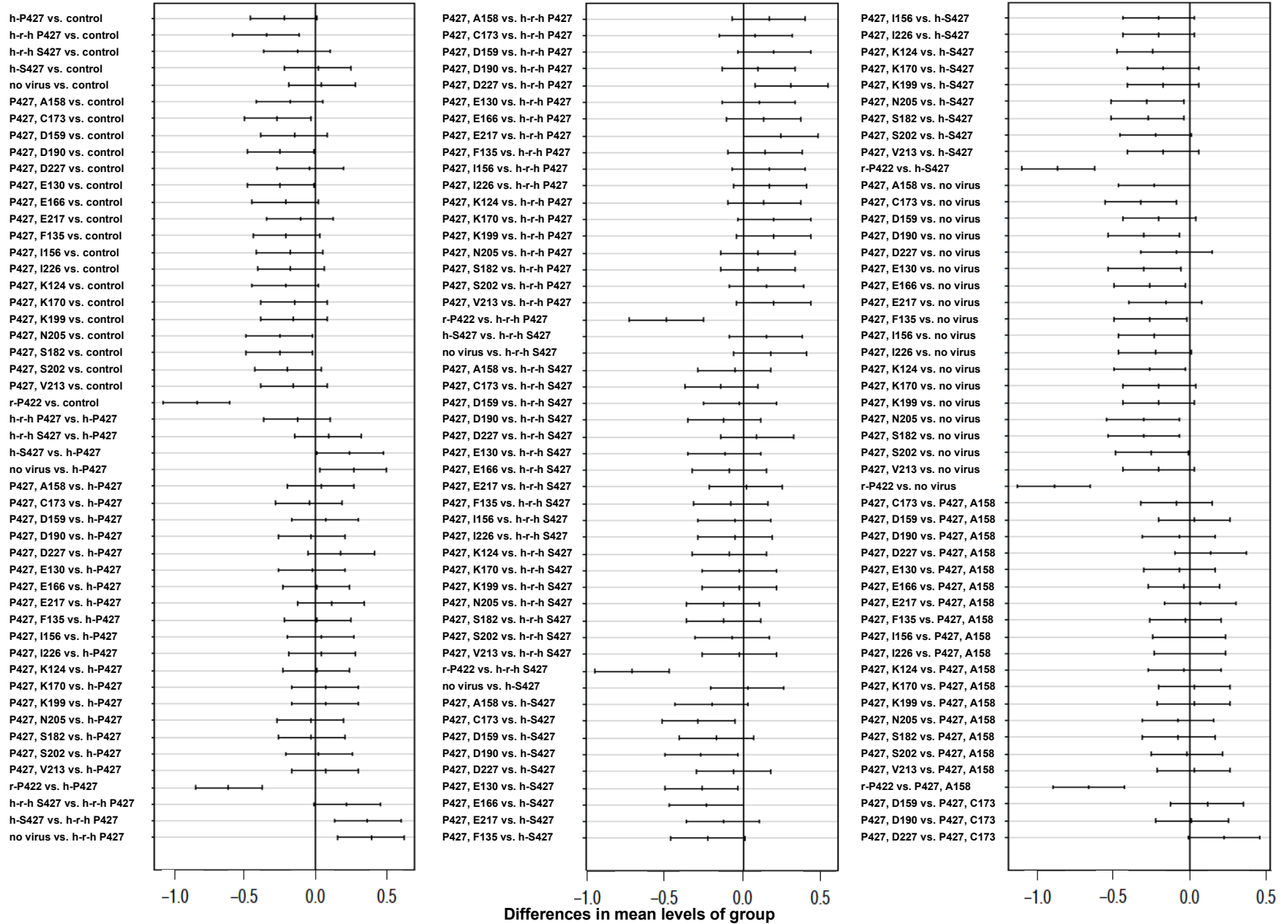


Figure S19 - Statistical analysis for Figure S3 (24h) - 2/2

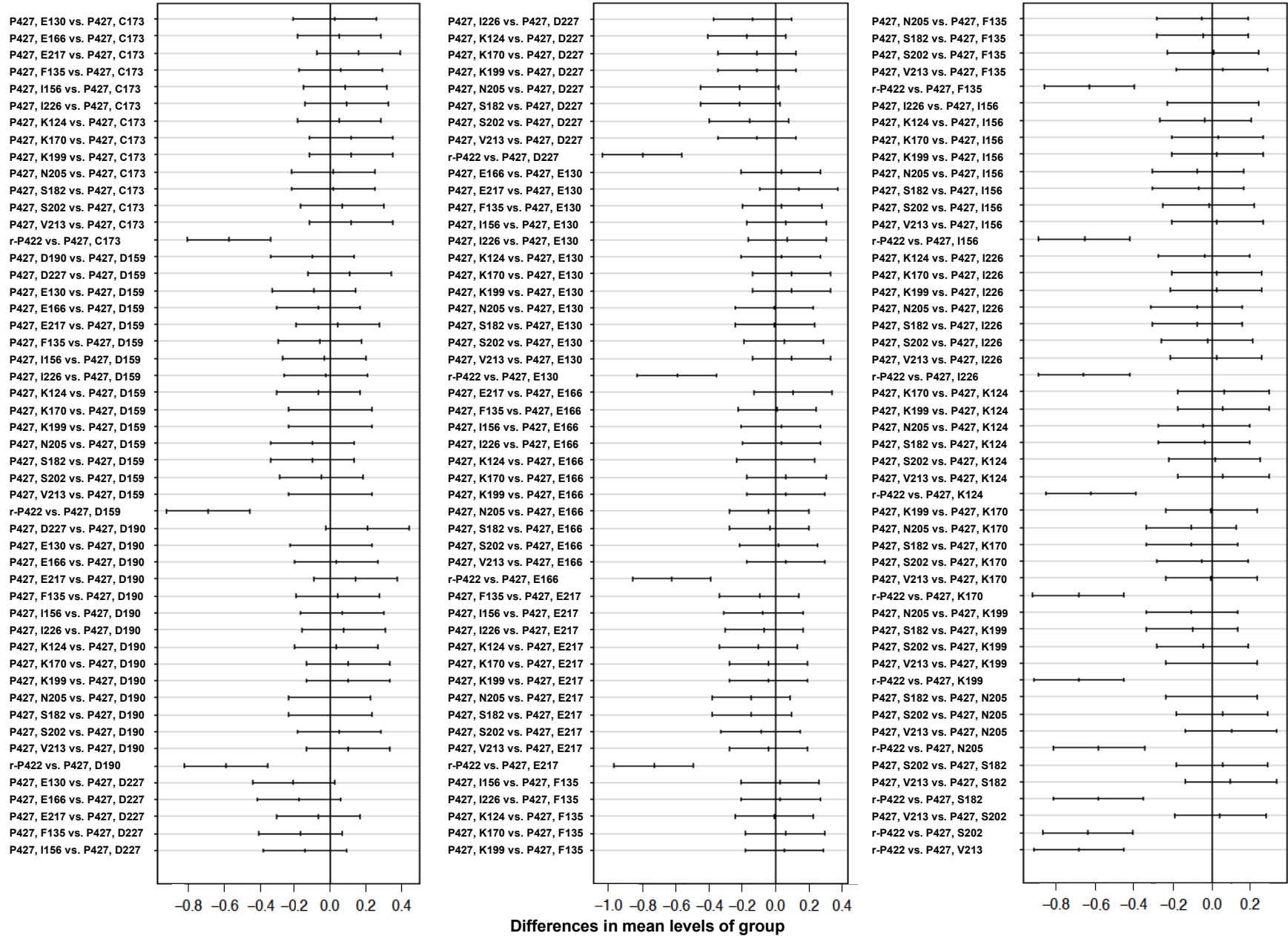


Figure S20 - Statistical analysis for Figure S3 (48h) - 1/2

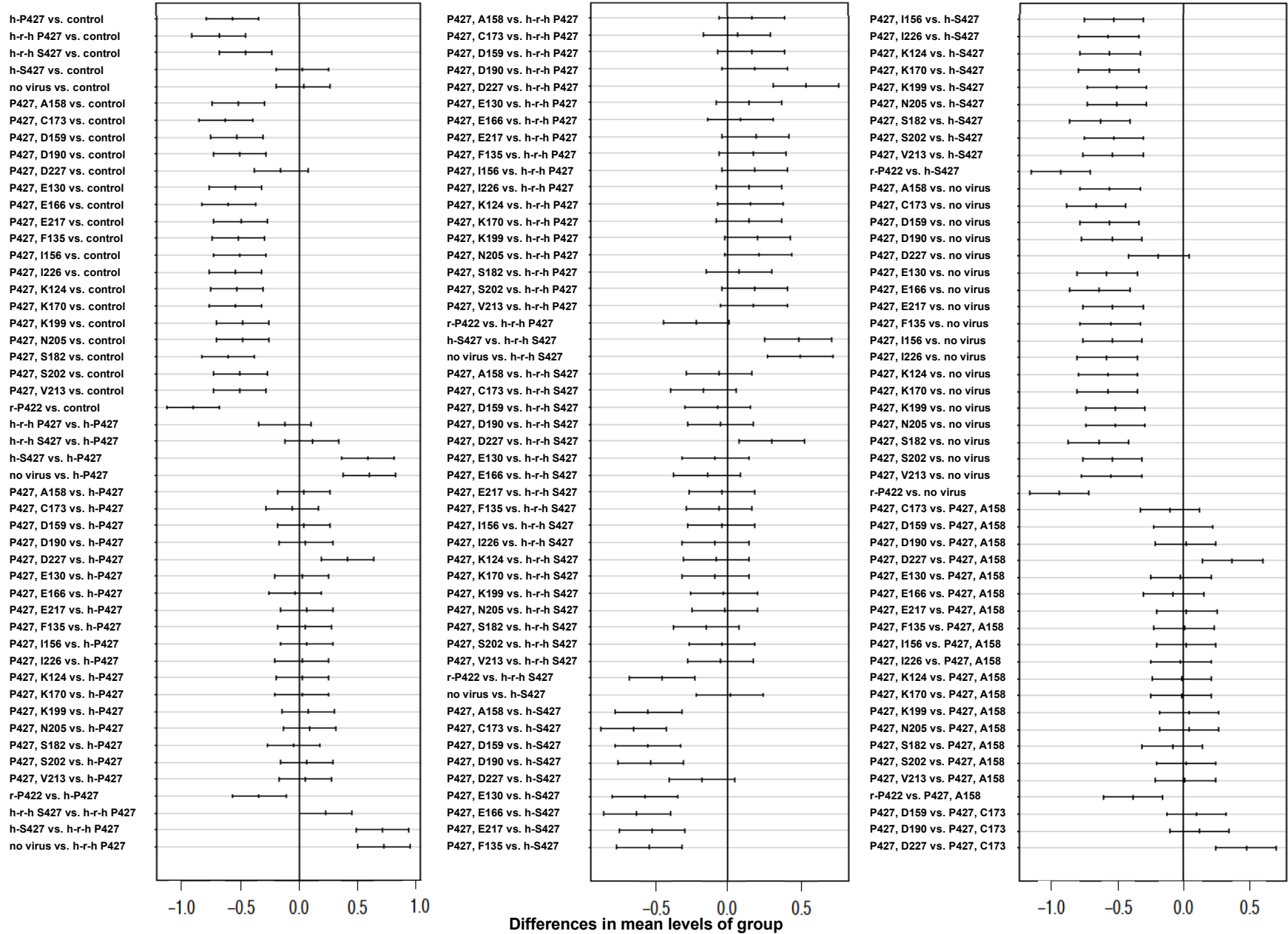


Figure S21 - Statistical analysis for Figure S3 (48h) - 2/2

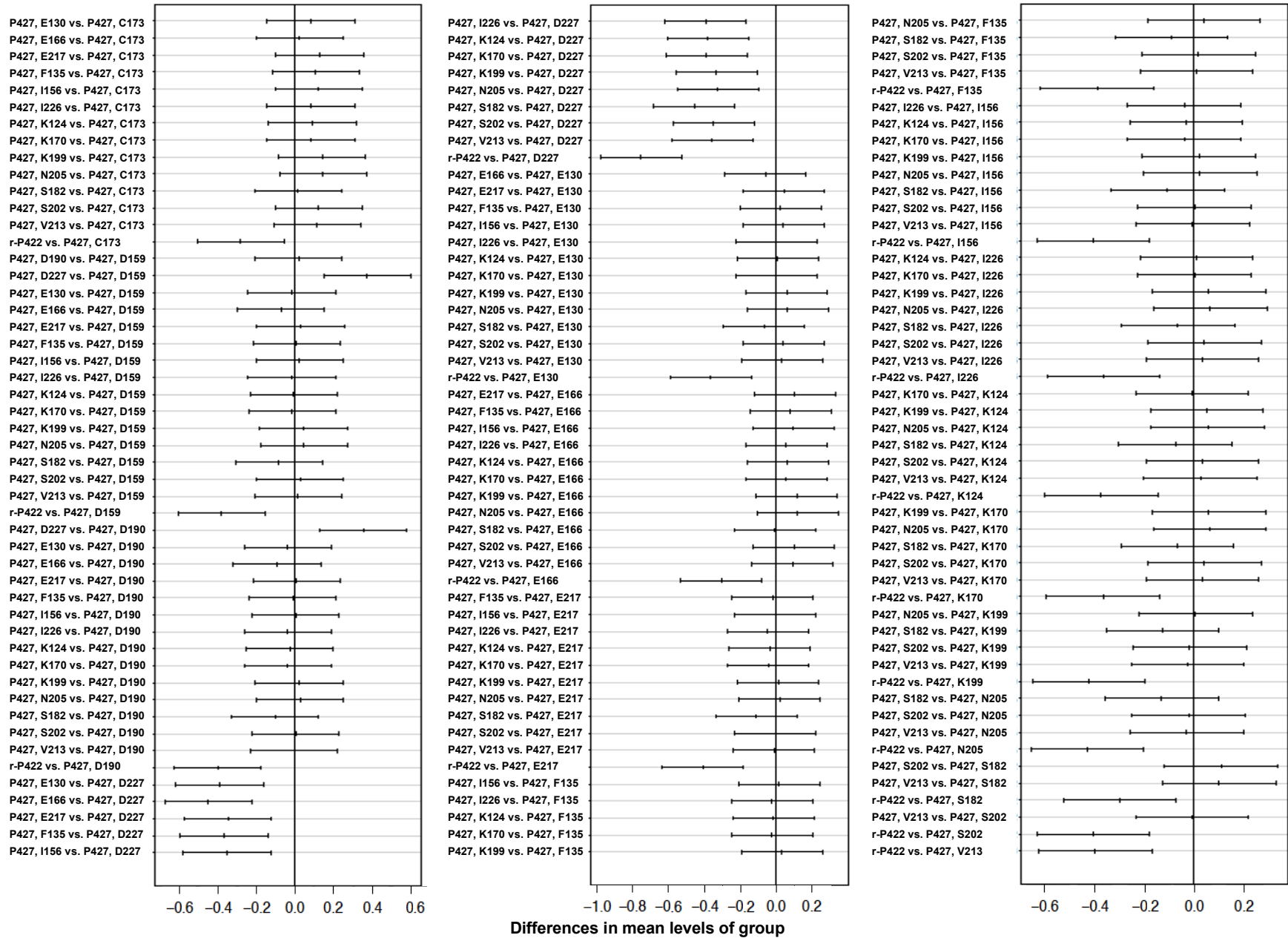


Figure S22 - Statistical analysis for Figure S3 (72h) - 1/2

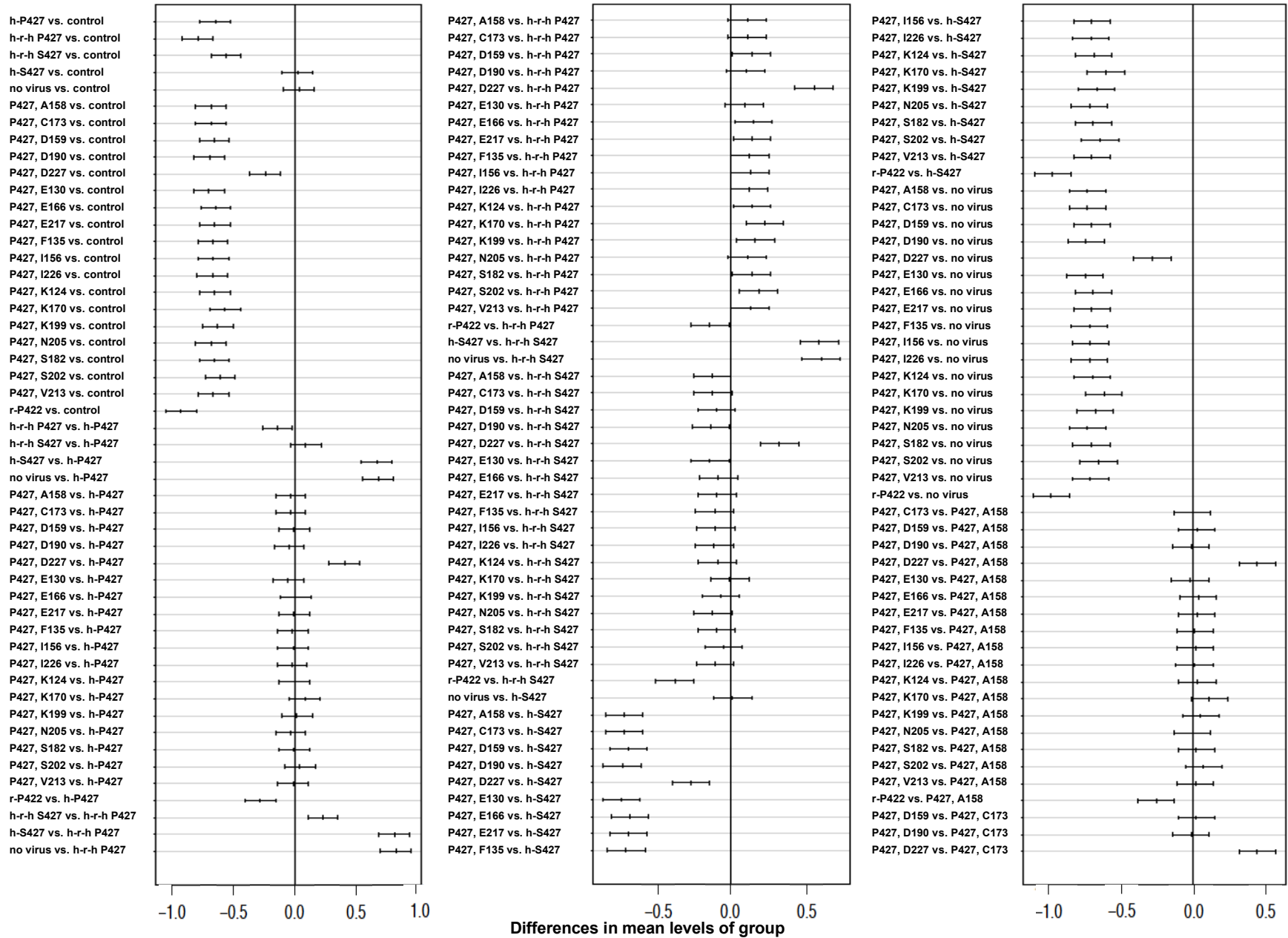


Figure S23 - Statistical analysis for Figure S3 (72h) - 2/2

