

Lipids are abbreviated as follows: phosphatidylcholines (PC), phosphatidylethanolamines (PE), phosphatidylglycerols (PG), phosphatidylinositols (PI), phosphatidylserines (PS), phosphatidic acids (PA), lysophosphatidylcholines (LPC), lysophosphatidylethanolamines (LPE), Ceramide alpha-hydroxy fatty acid-phytosphingosine (Cer-AP), Hexosylceramide alpha-hydroxy fatty acid-phytosphingosine (Hex-Cer-AP), digalactosyldiacylglycerols (DGDG), monogalactosyldiacylglycerols (MGDG), sulfoquinovosyldiacylglycerols (SQDG), acyl diacylglycerol glucuronide (ADGGA), diacylglycerols (DG) and triacylglycerols (TG).

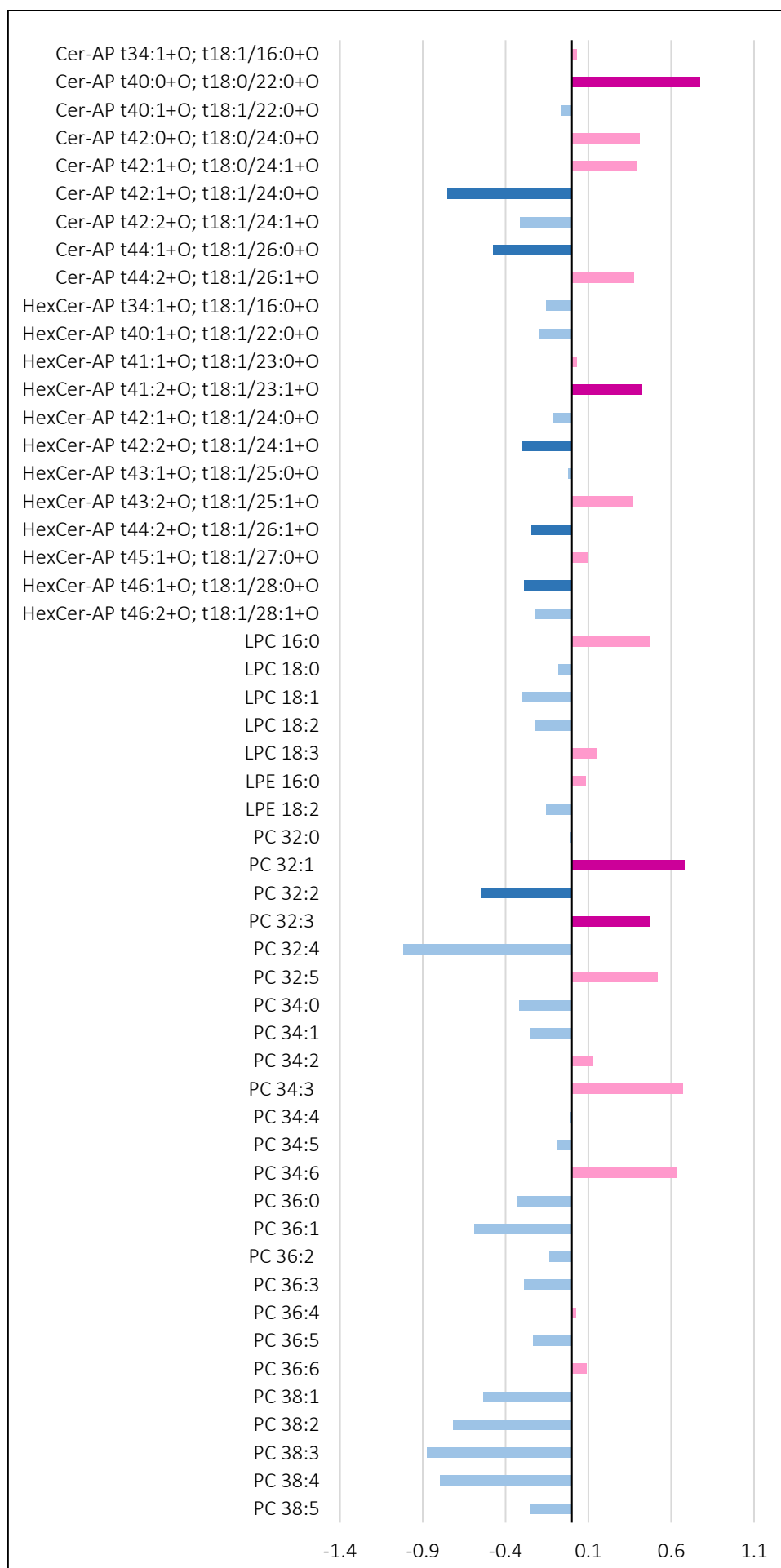
Figures S1 (a-f), S2 (a-f) and S4 (a-f): The magenta-coloured bars represent lipids, which show significantly higher lipid levels and while blue colour bars represent lipids, which show significantly lower lipid levels at different growth stages of a tissue. Non-significant differences are shown in light pink or blue. The light pink-coloured bars represent lipids, which are present at higher levels while the light blue bars represent lipids, which are present in lower levels at different growth stages of a tissue.

Figure S3 (a-g): The purple-coloured bars represent lipids, which have changed significantly in 14 d old seedlings compared to 7 d old seedlings. The green-coloured bars represent lipids, which have changed significantly in 21 d old seedlings compared to 14 d old seedlings. Non-significant changes are shown by bars with a dotted pattern.

Figure S5 (a-h): The blue-coloured bars represent lipids, which have changed significantly in 1.2 cm long siliques compared to 1 cm long siliques. The green-coloured bars represent lipids, which have changed significantly in 1.5 cm long siliques compared to 1.2 cm long siliques. Non-significant changes are shown by bars with a dotted pattern.

Figure S1(a-f) Log₂ fold change comparison of the levels of lipid species in the 24 d old rosettes compared to 14 d old rosettes (Log₂ 24d/14d)

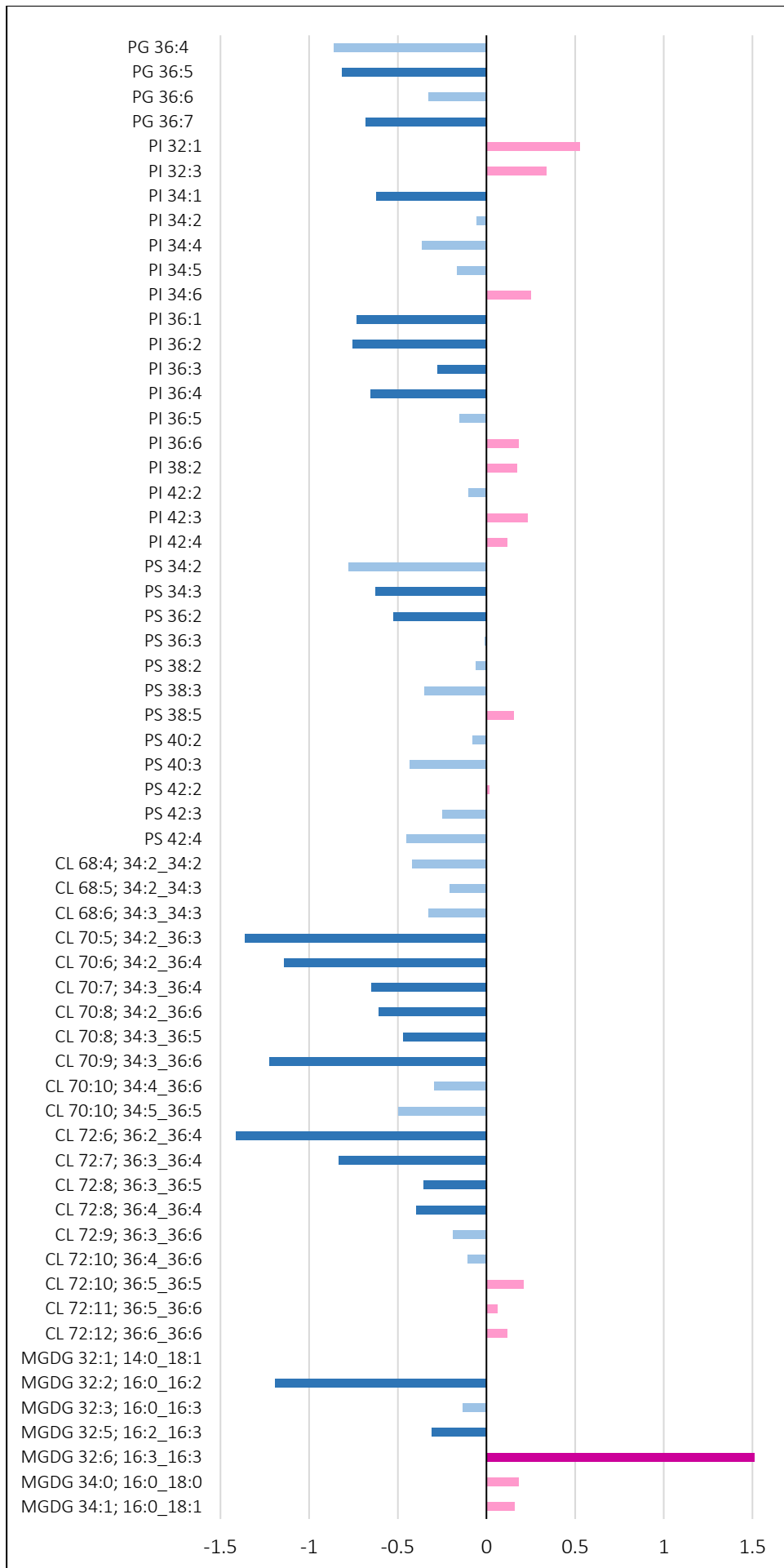
(a)



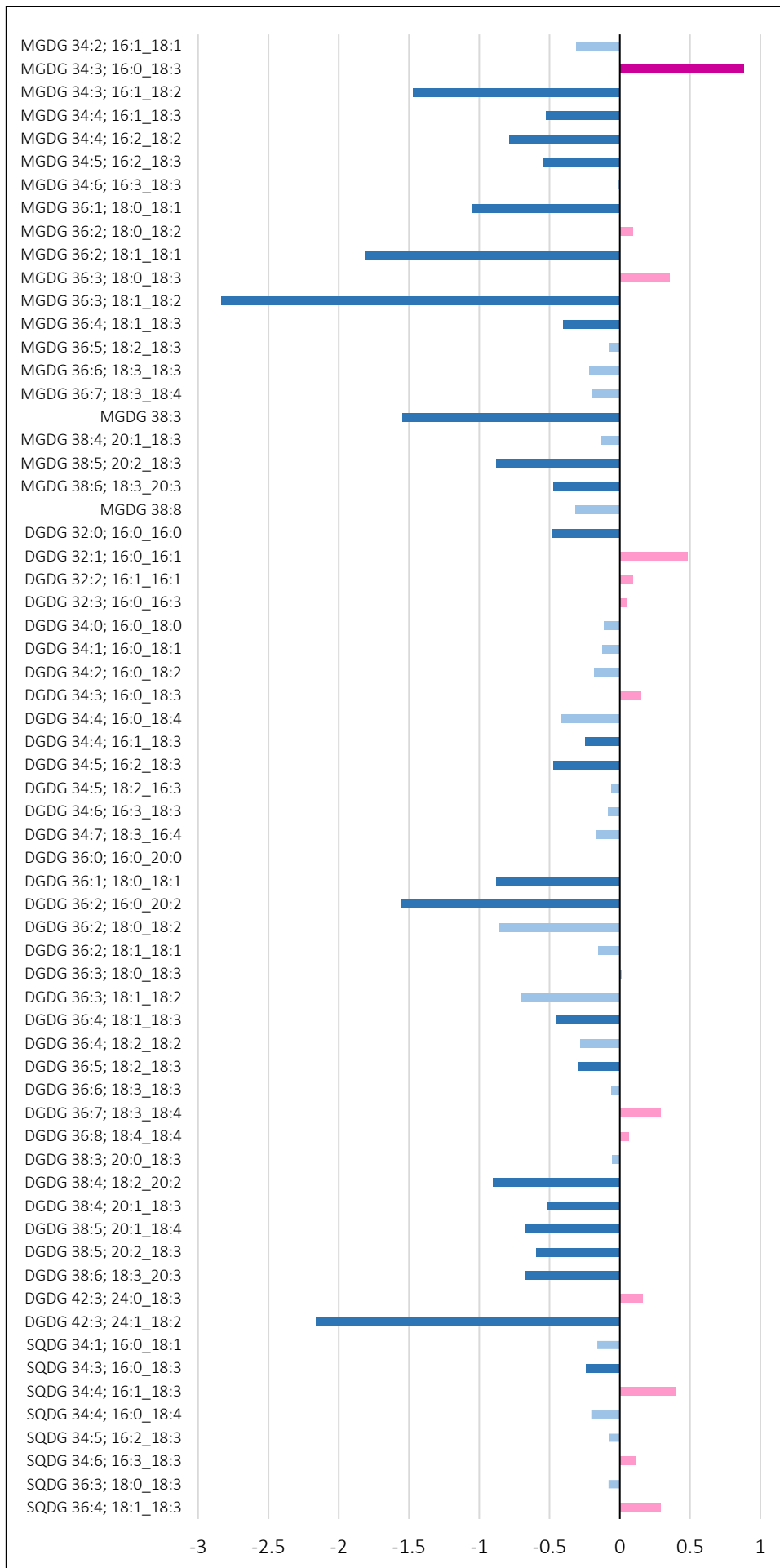
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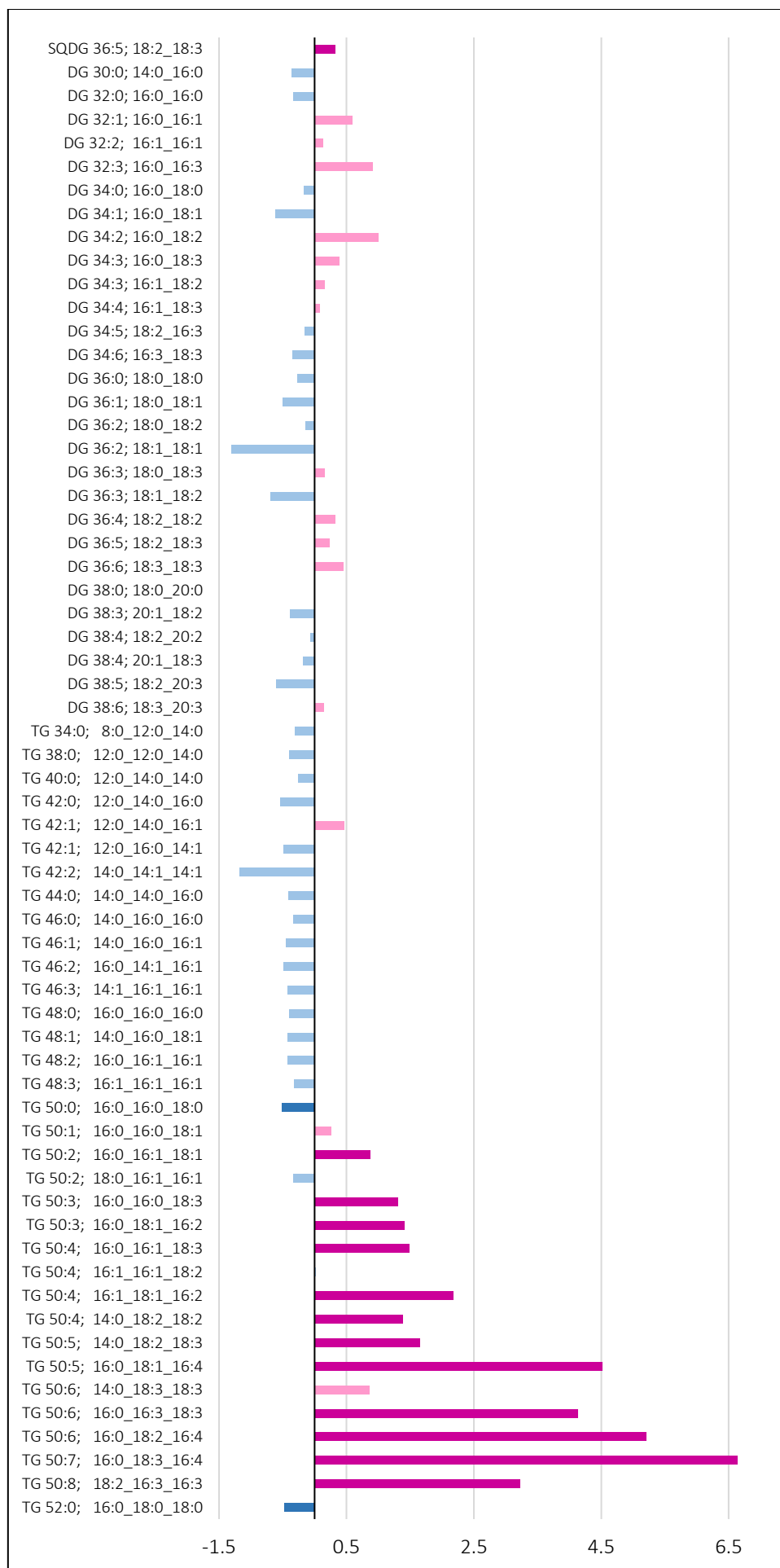
(c)



(d)



(e)



(f)

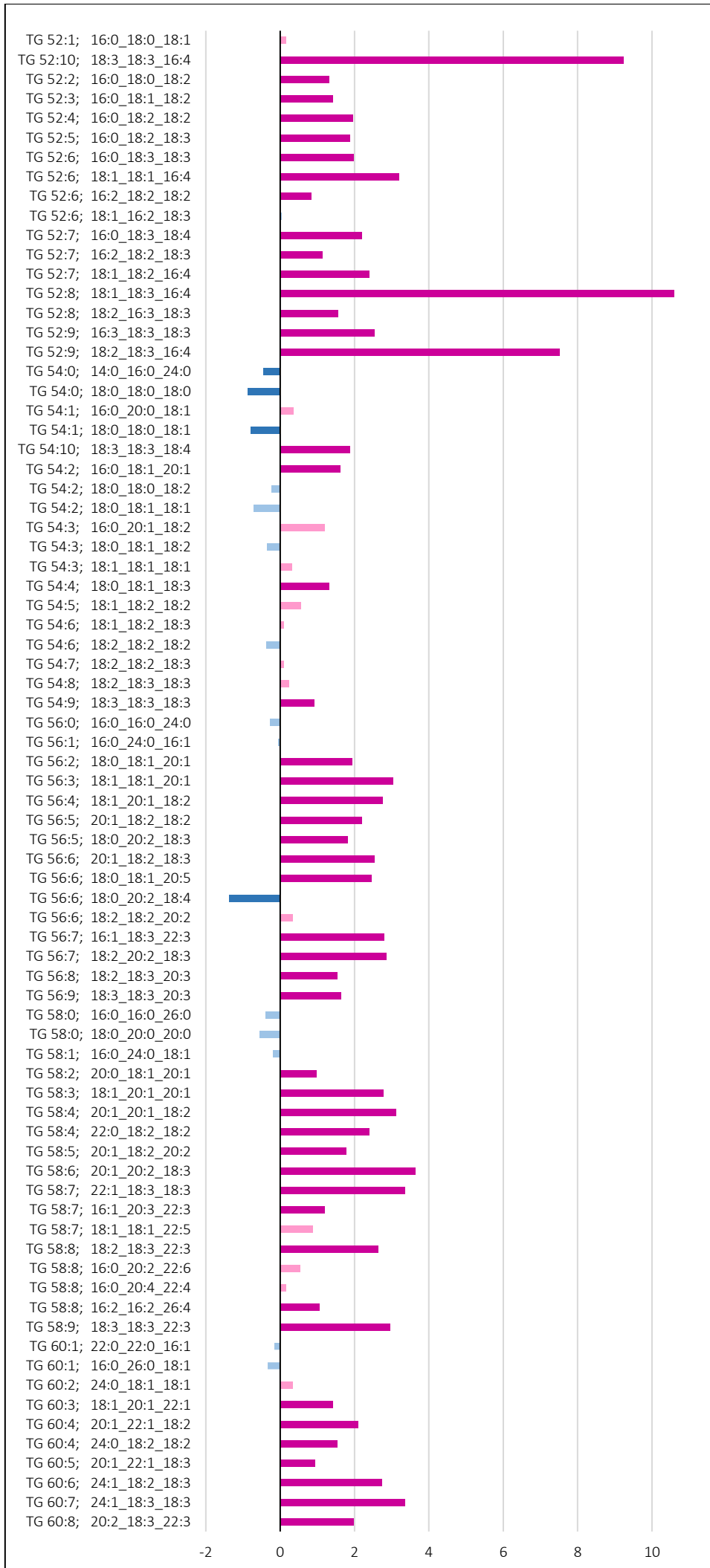
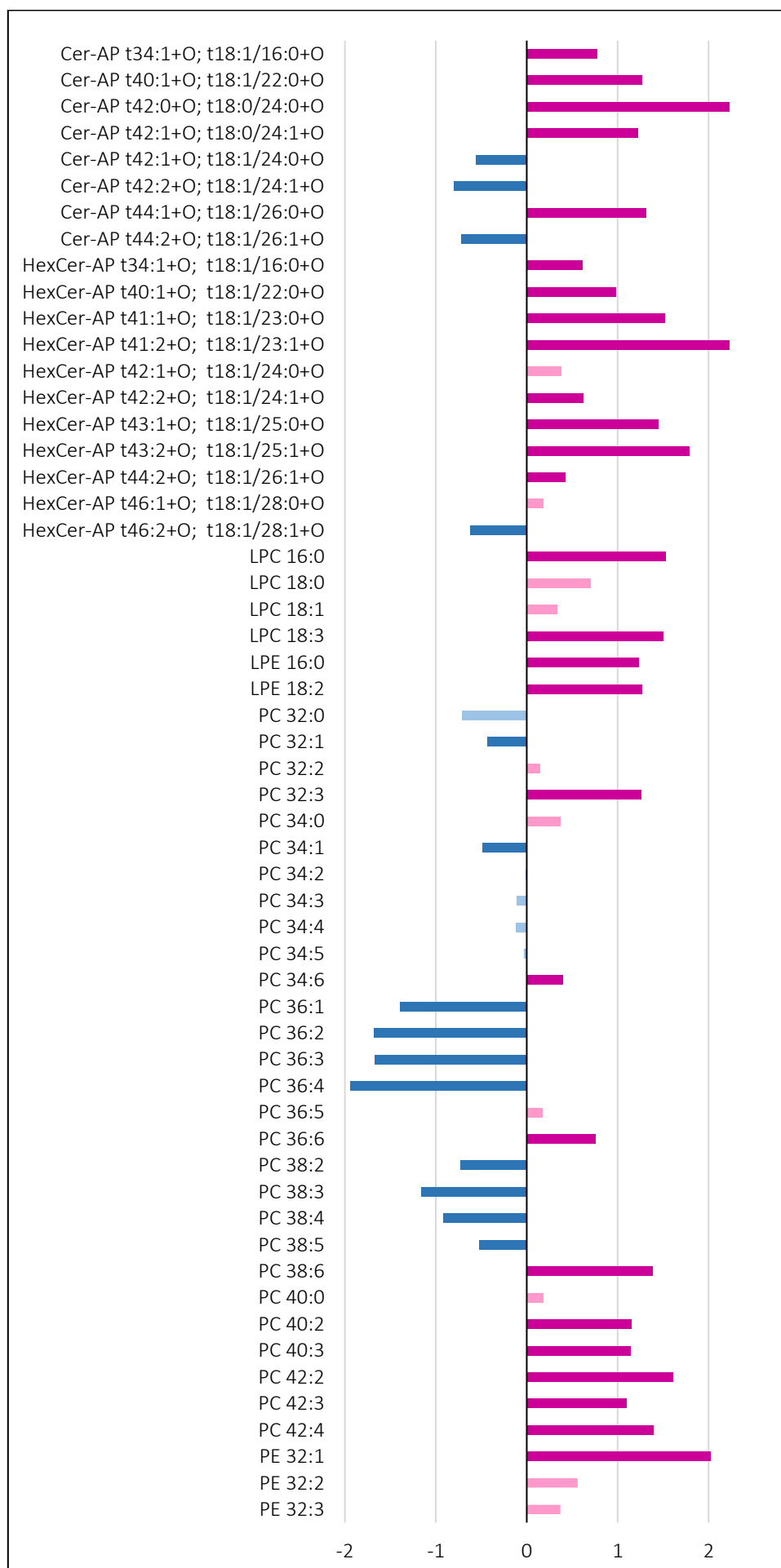
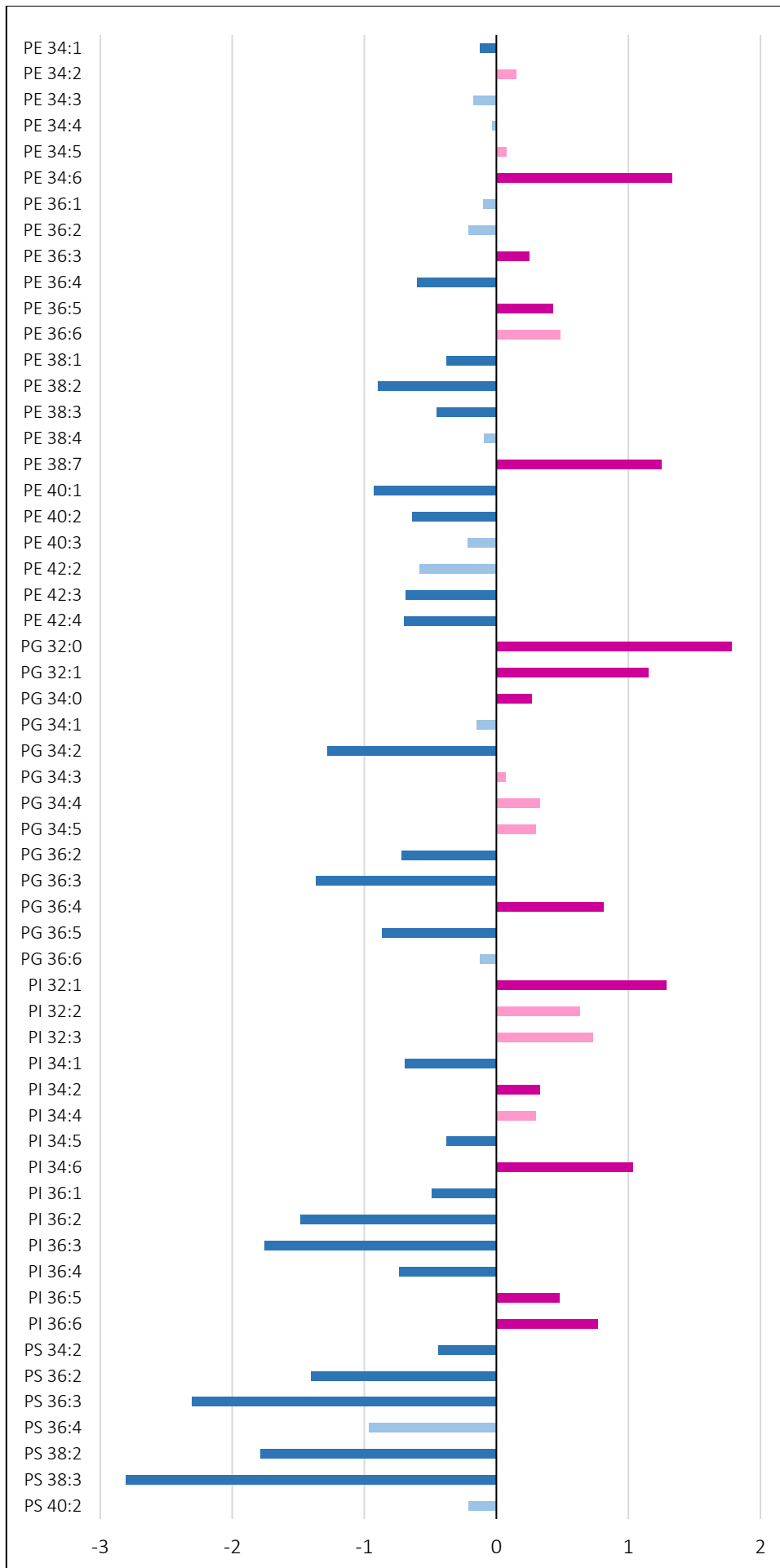


Figure S2 (a-f) Log2 fold change comparison of the levels of lipid species in the second leaf of 17d old plants compared to the seventh leaf (Log_2 2nd leaf/7th leaf)

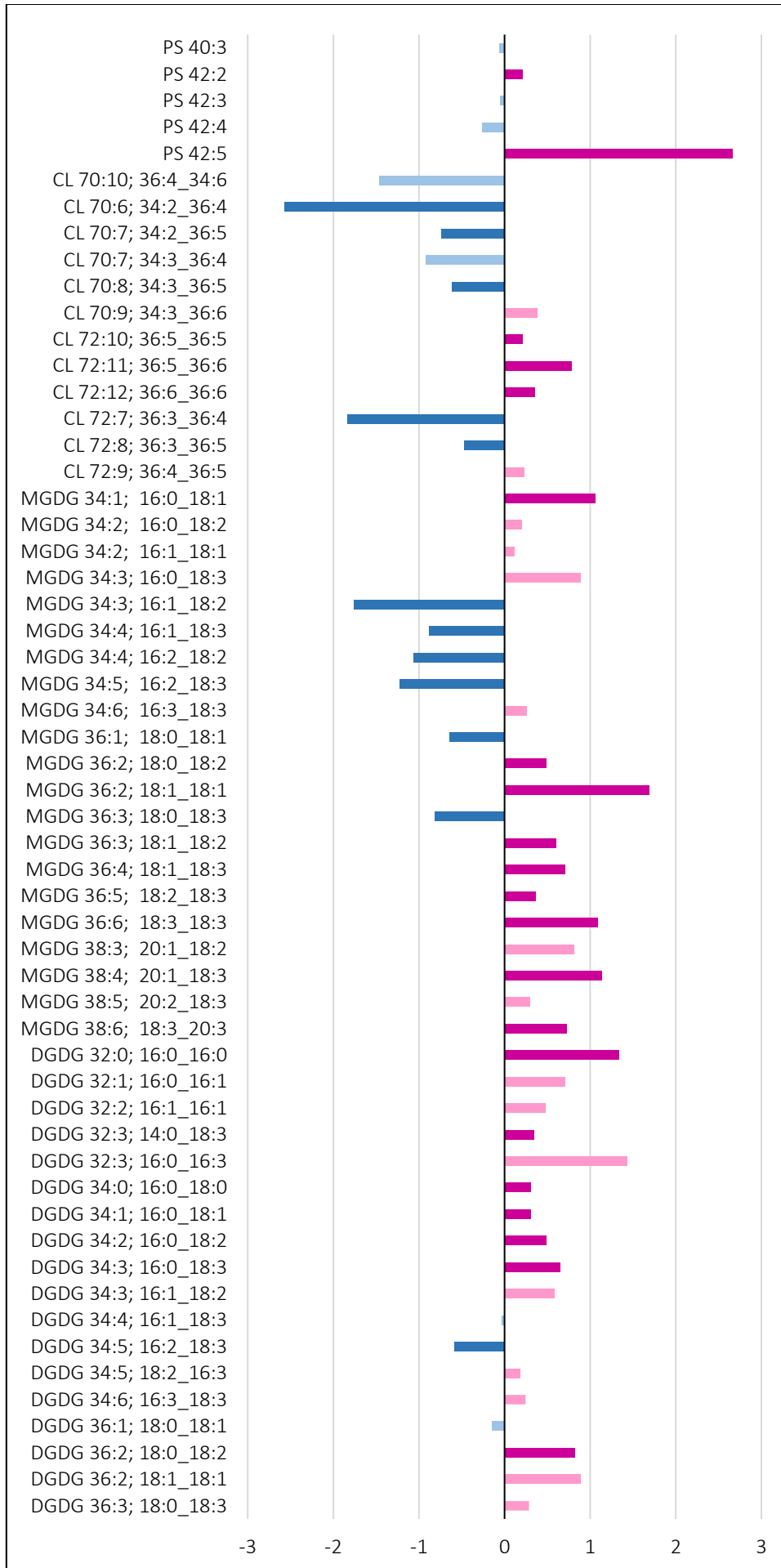
(a)



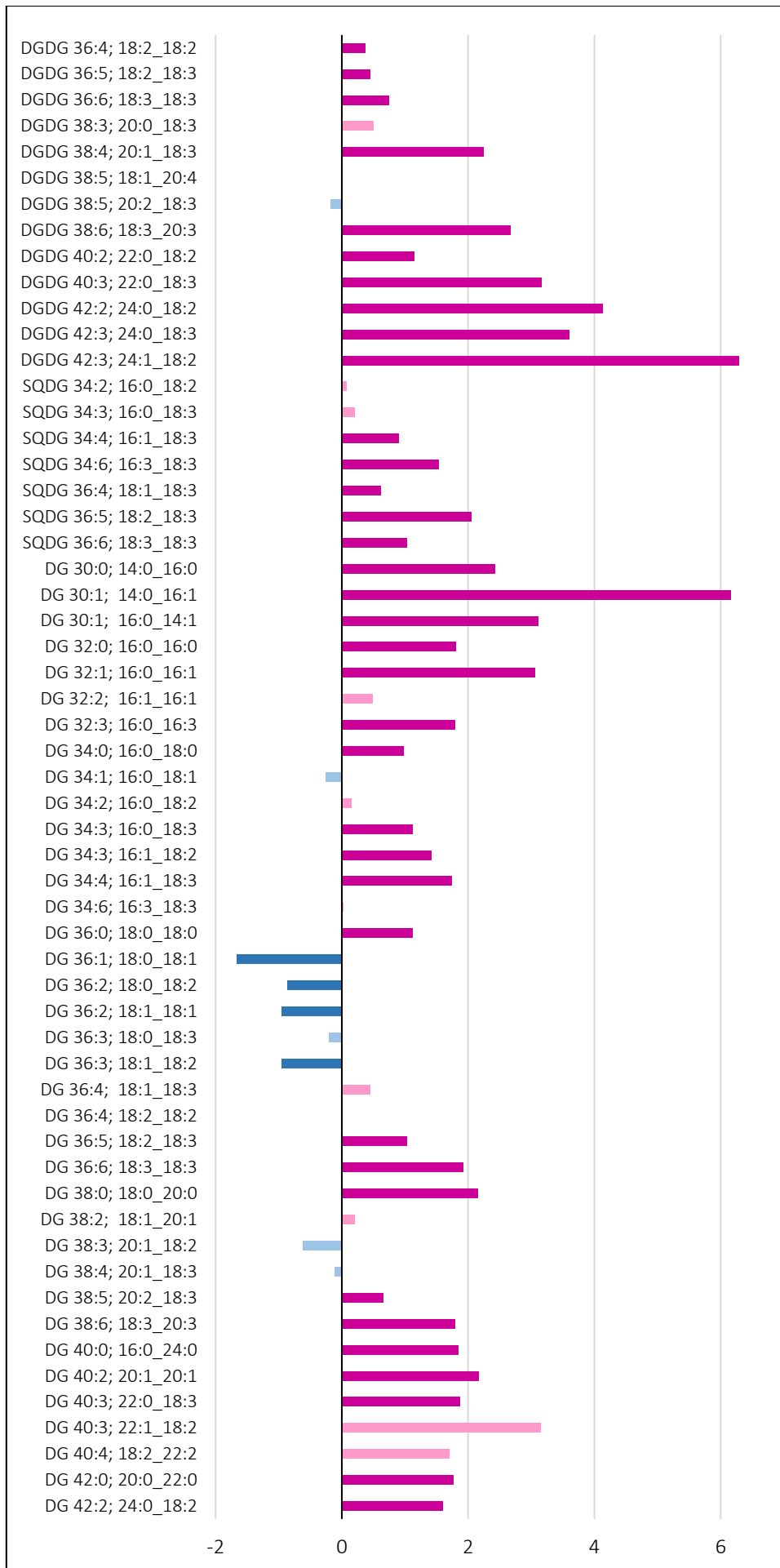
(b)



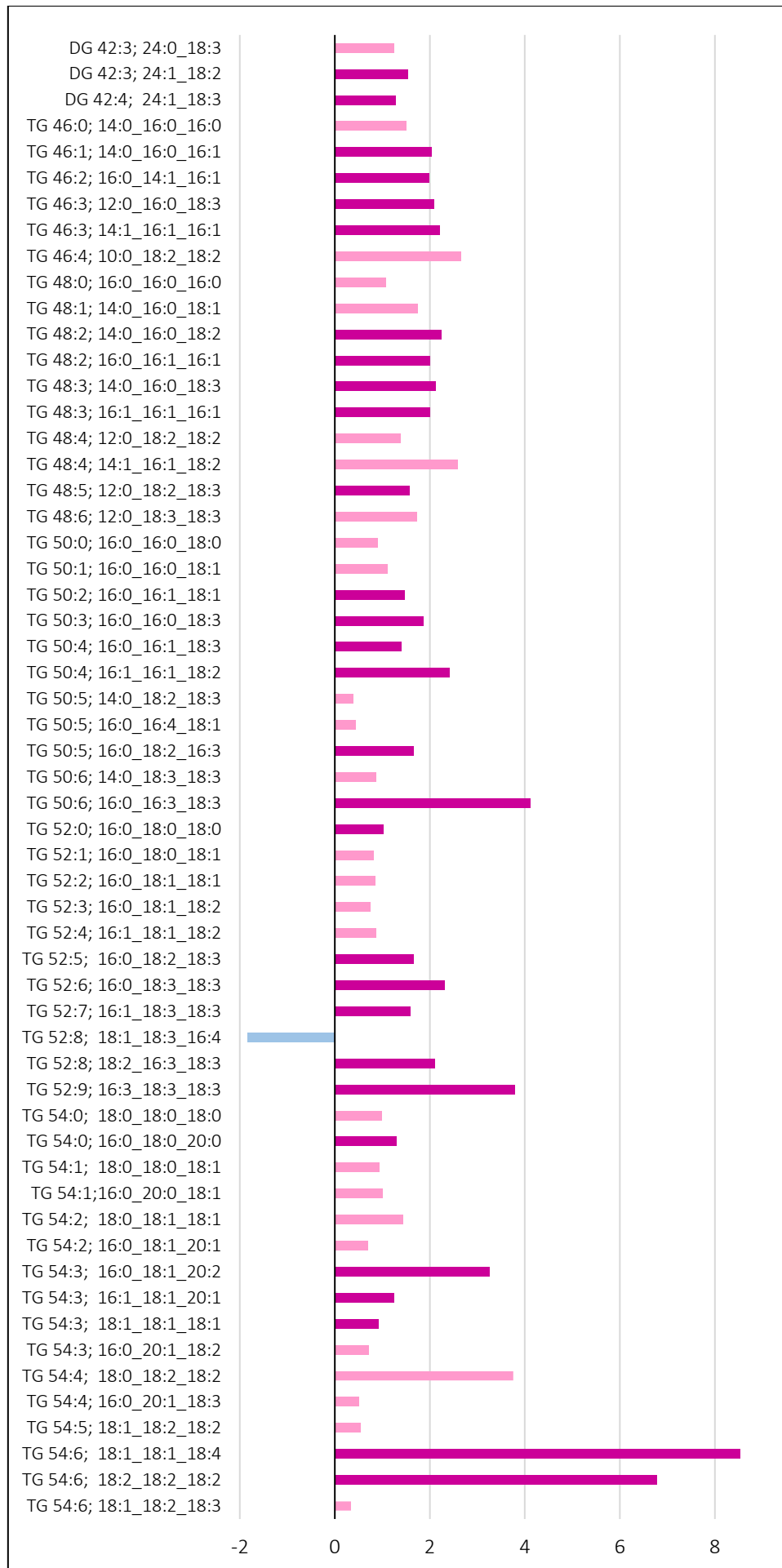
(c)



(d)



(e)



(f)

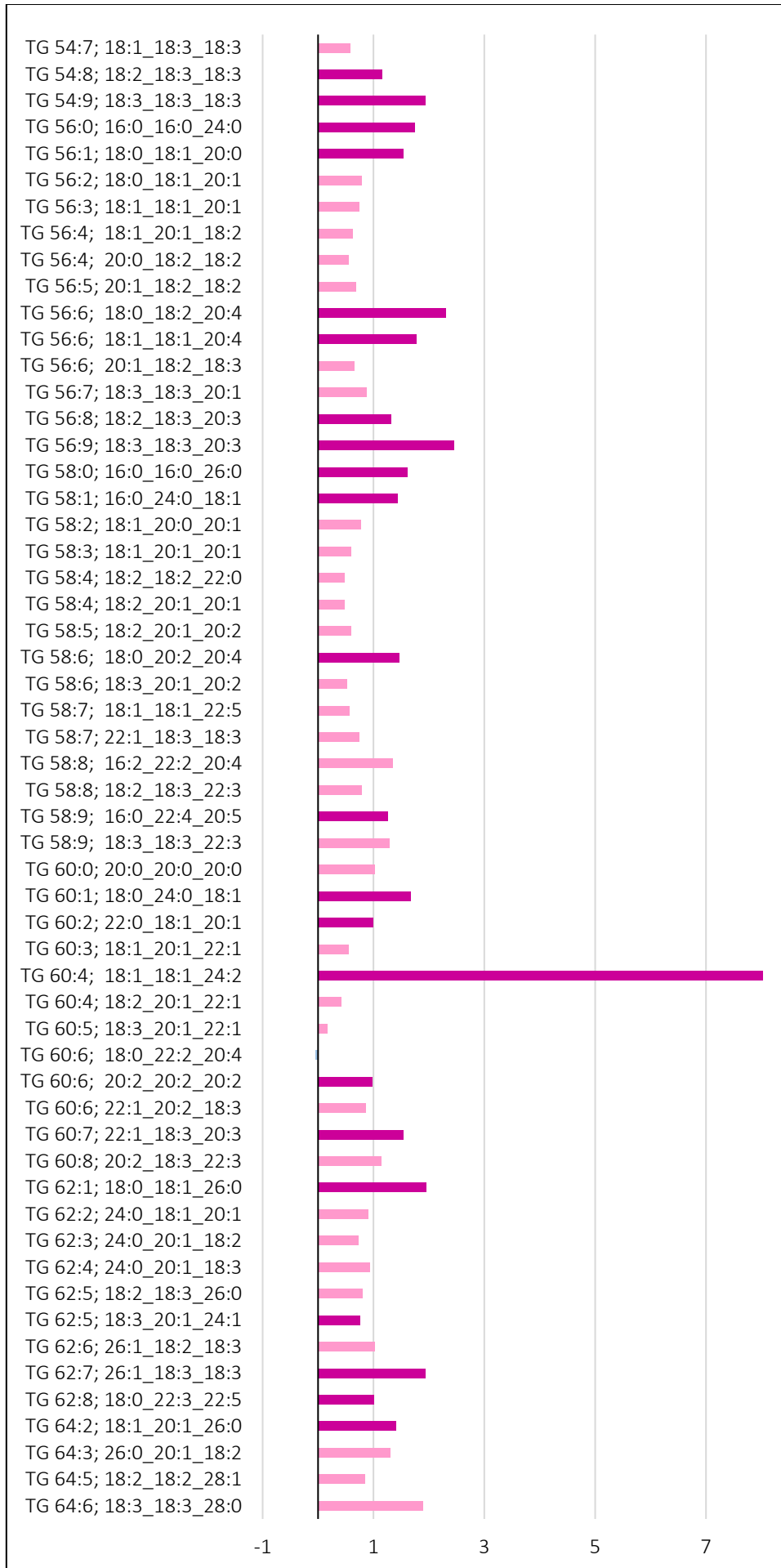
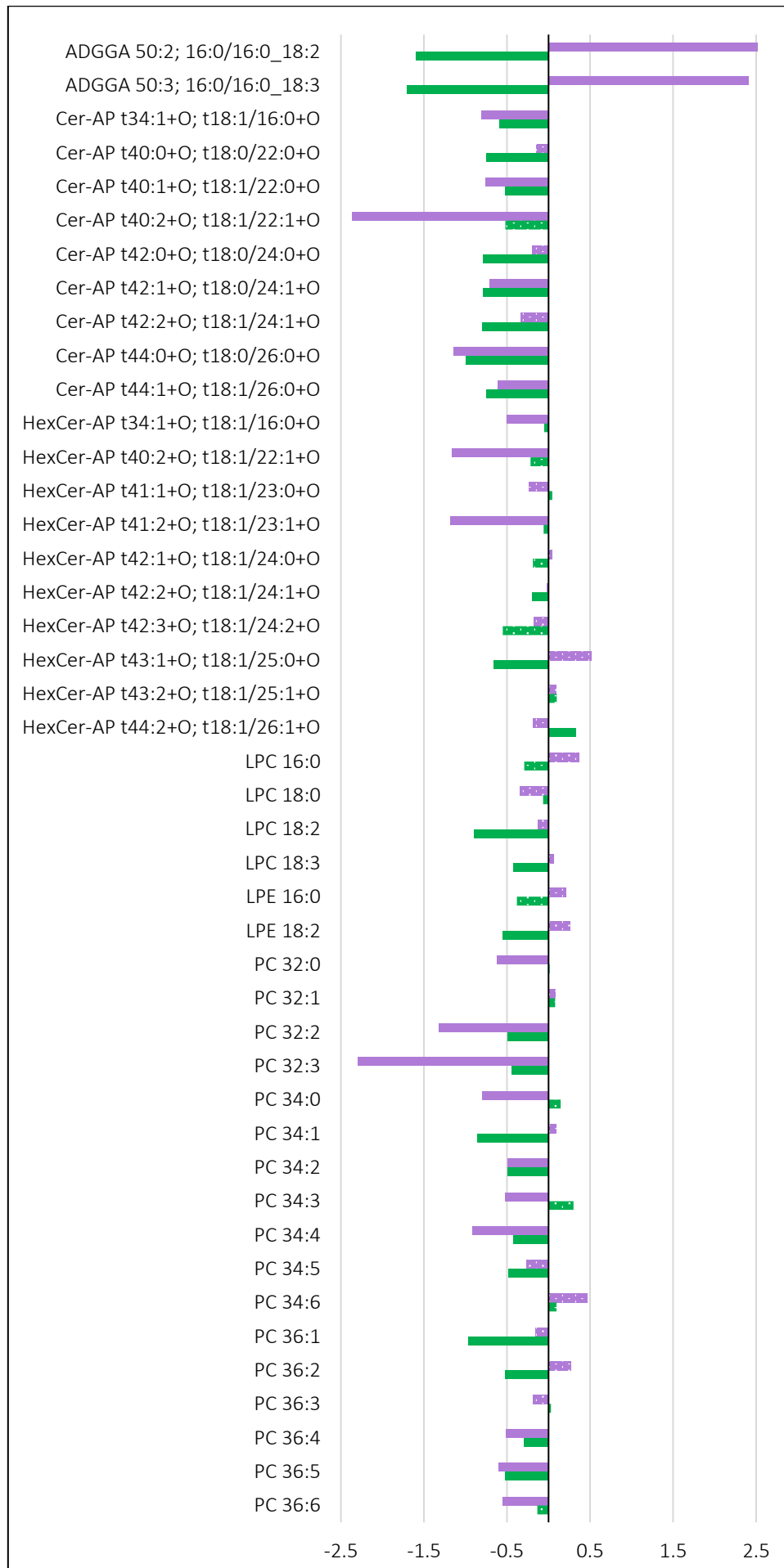
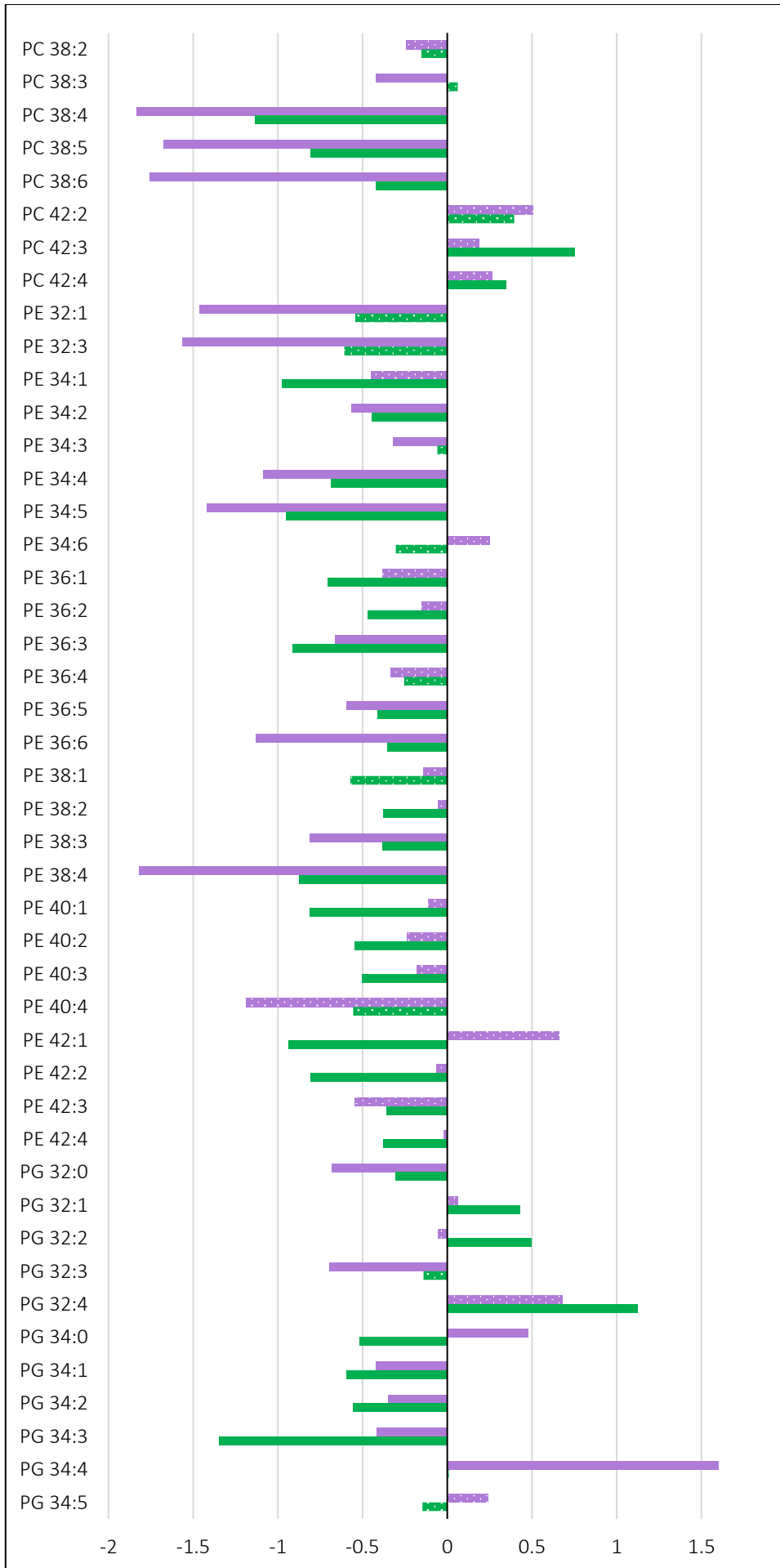


Figure S3 (a-g) Log2 fold change comparison of the levels of lipid species in 14 d old seedlings compared to 7 d old seedlings ($\text{Log}_2 14\text{d}/7\text{d}$) (purple) and in 21 d old seedlings compared to 14 d old seedlings ($\text{Log}_2 21/14\text{d}$) (green)

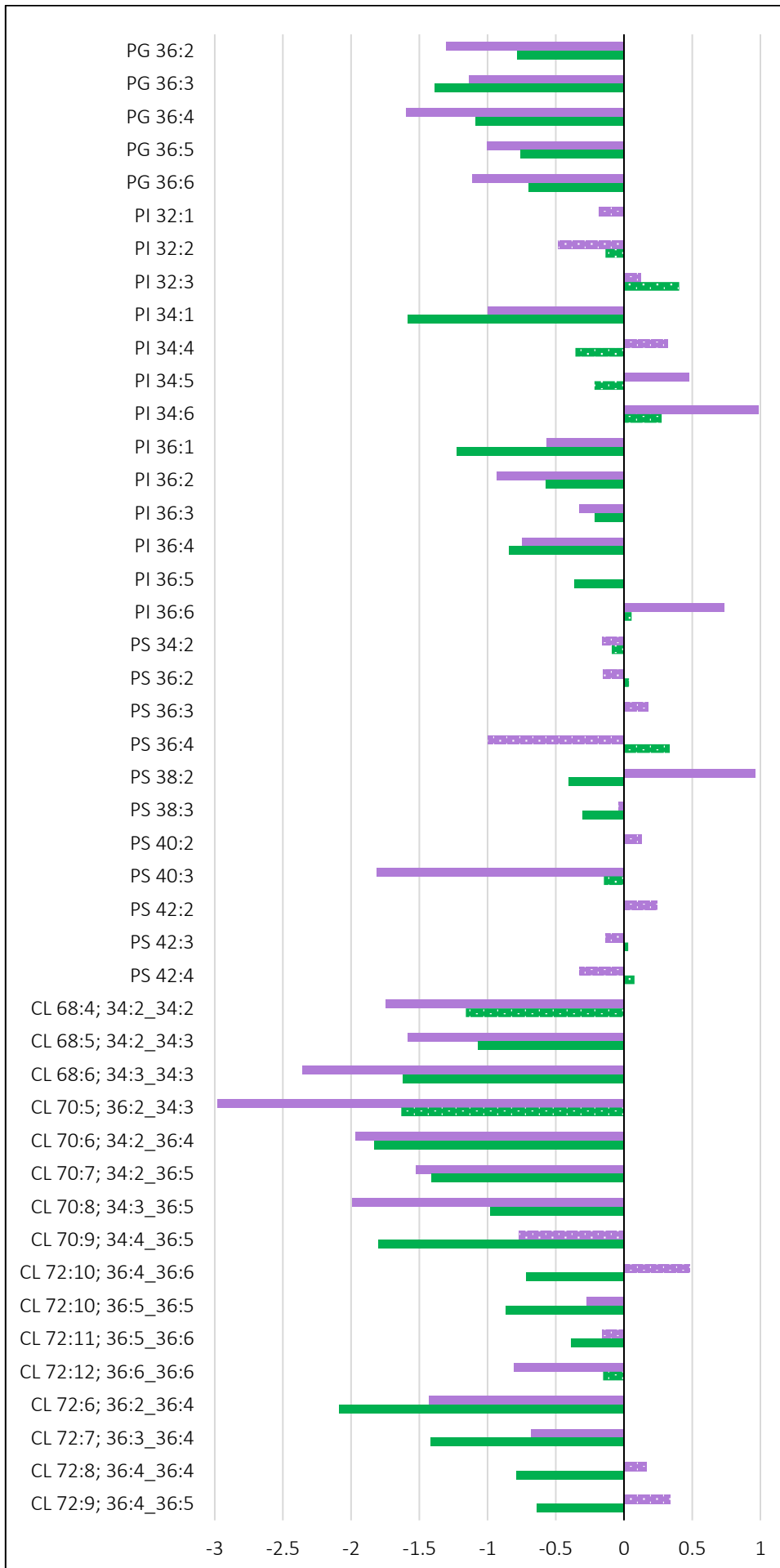
(a)



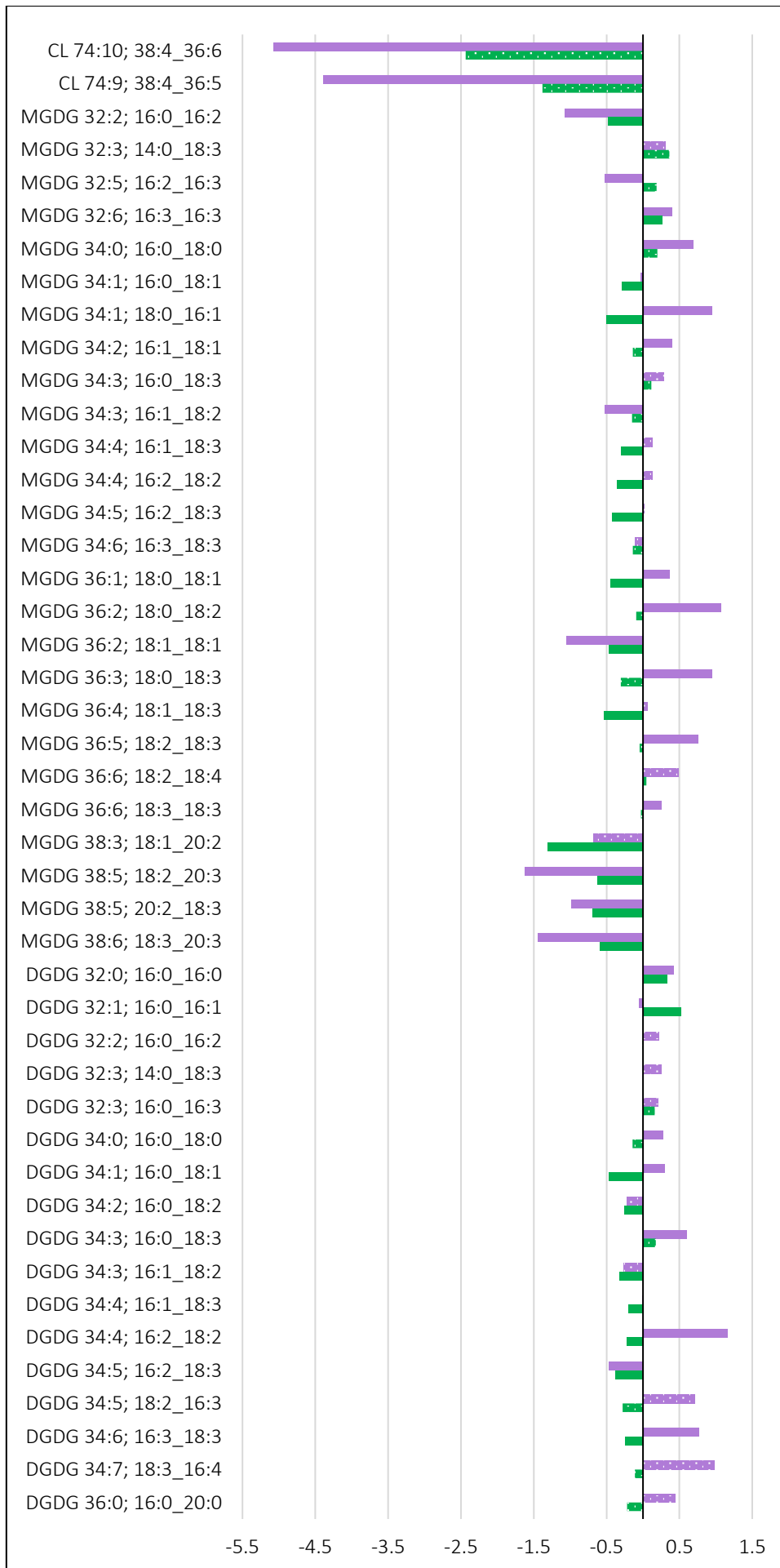
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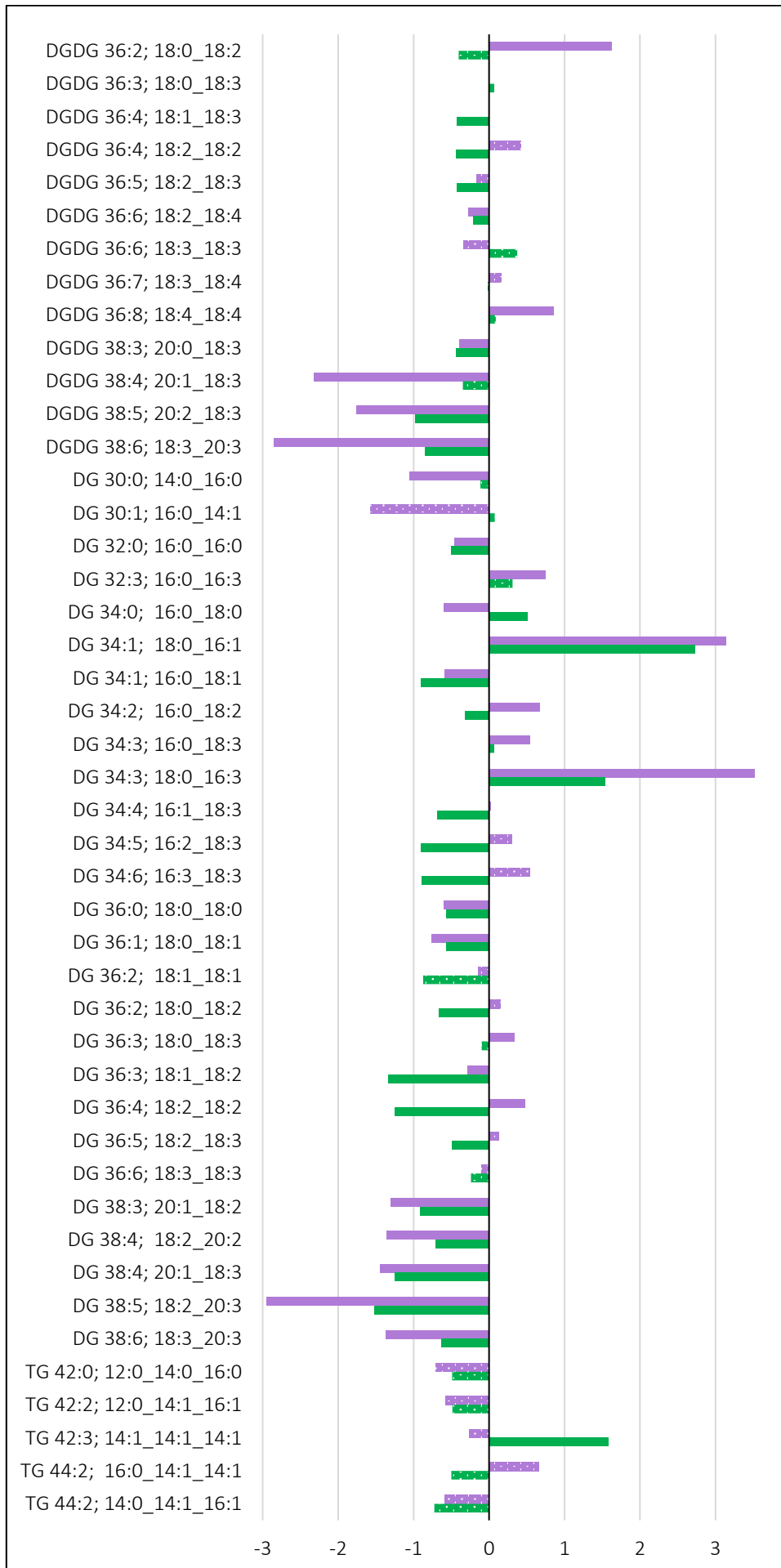
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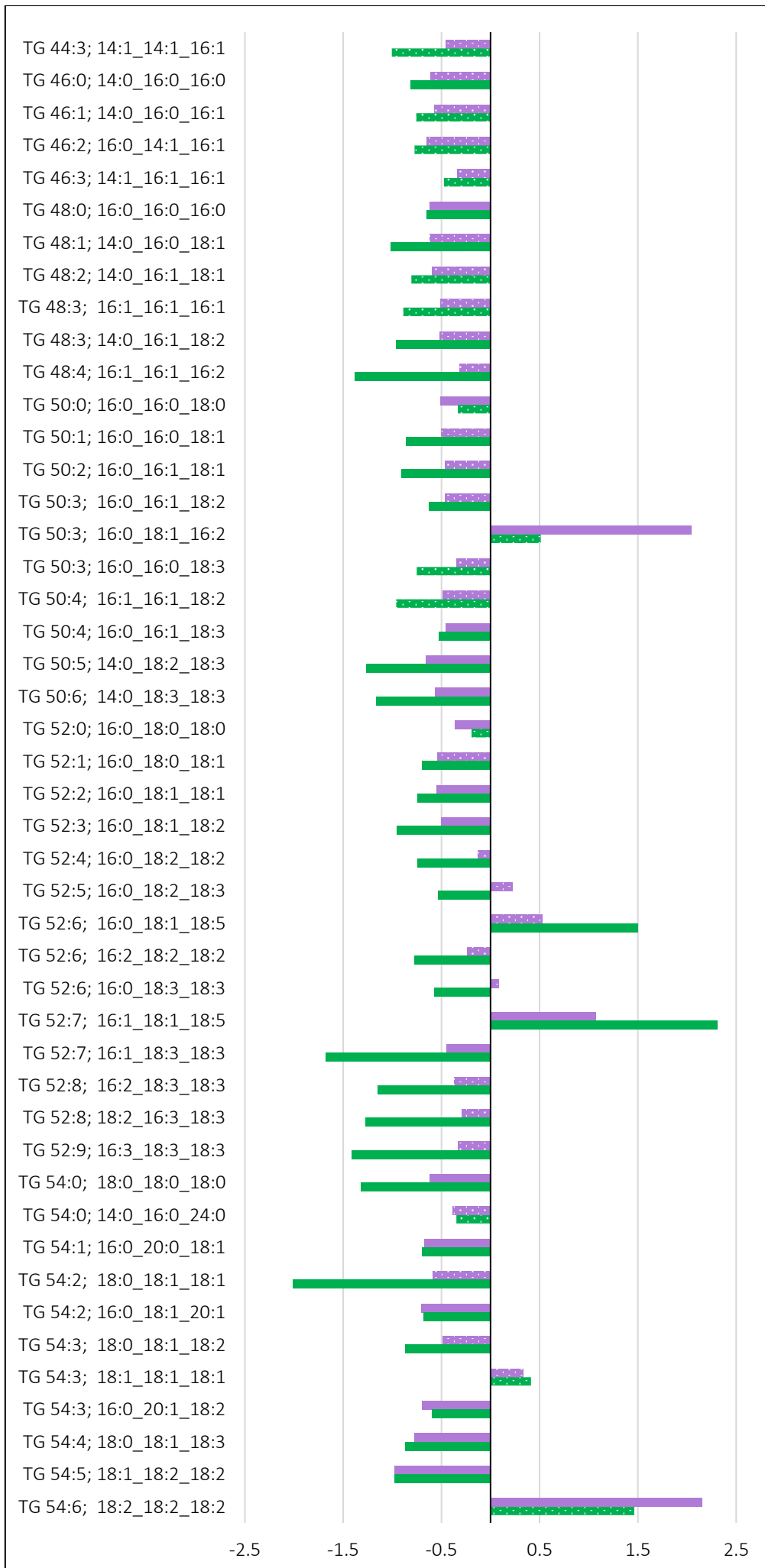
(d)



(e)



(f)



(g)

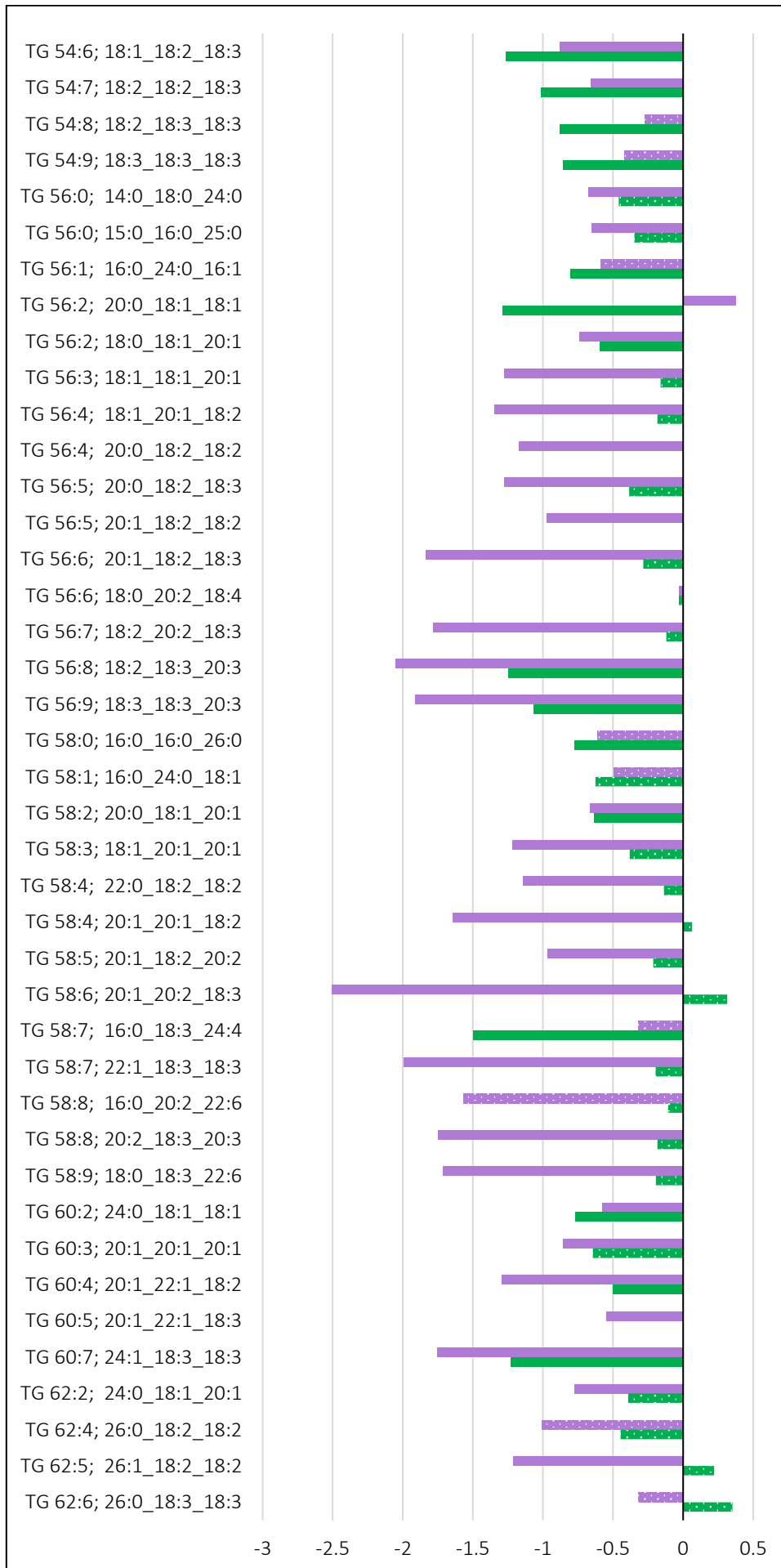
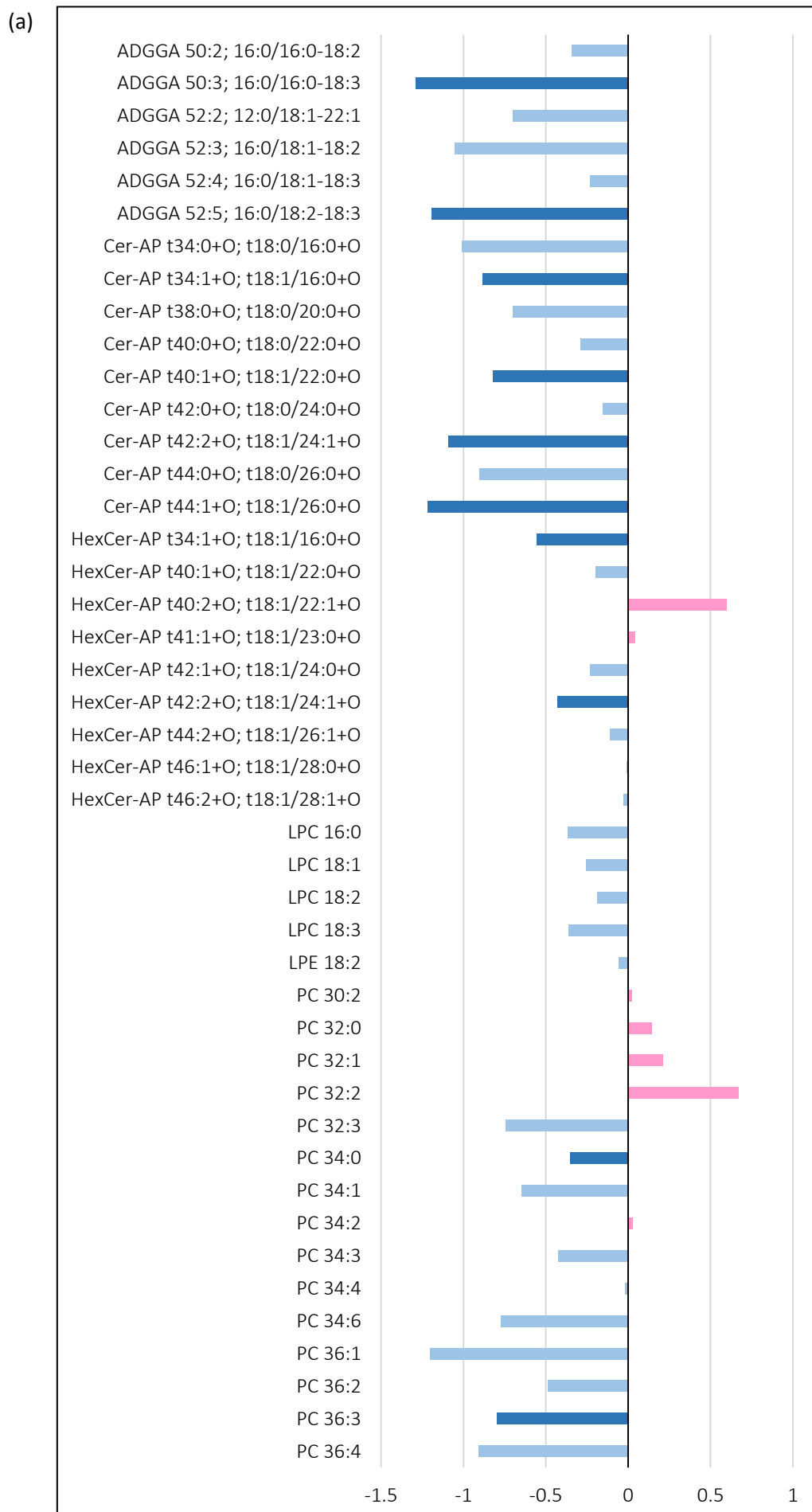
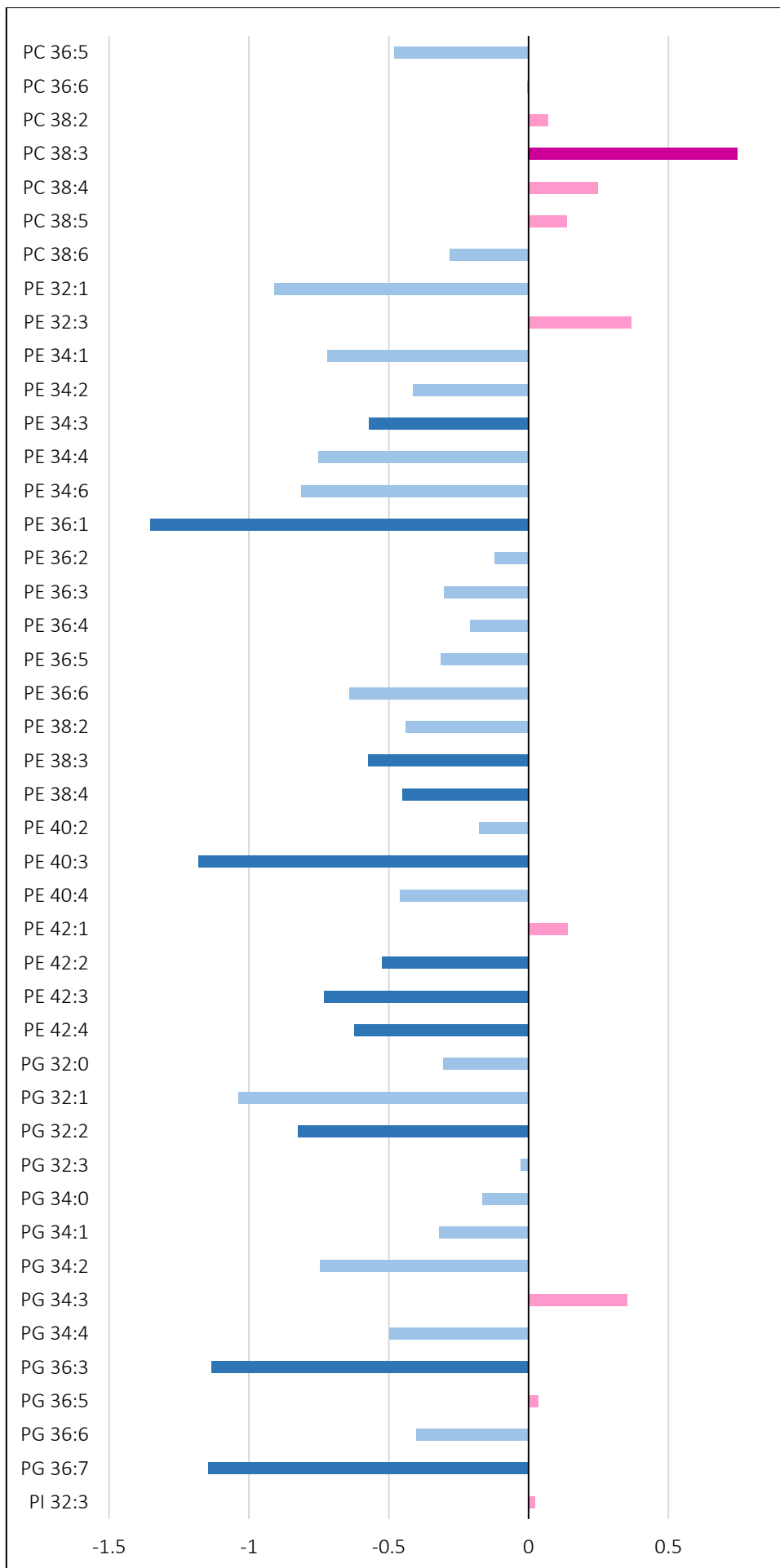


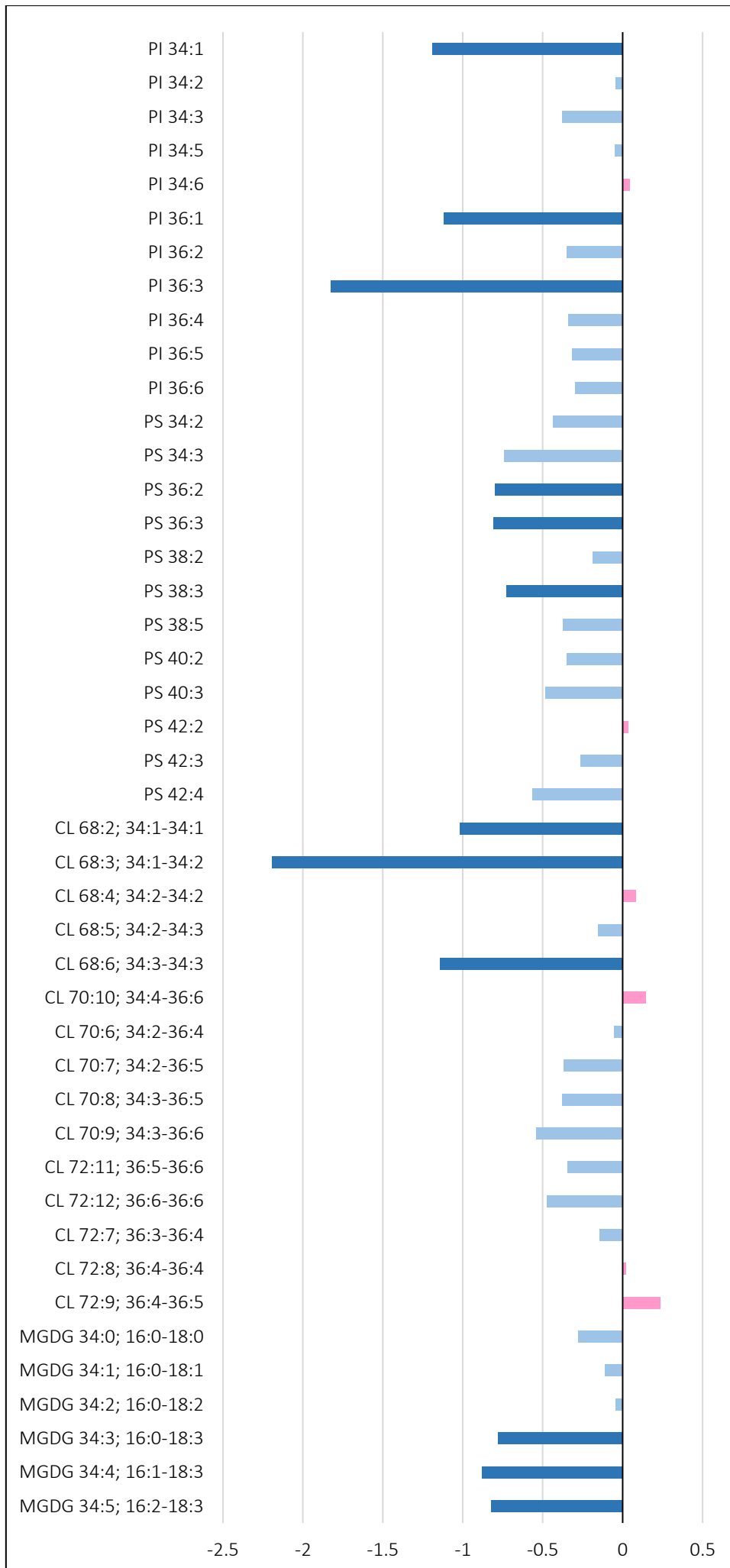
Figure S4 (a-f) Log2 fold change comparison of the levels of lipid species in the first internode compared to the second internode of 28 d old plants (Log_2 first internode/ second internode)



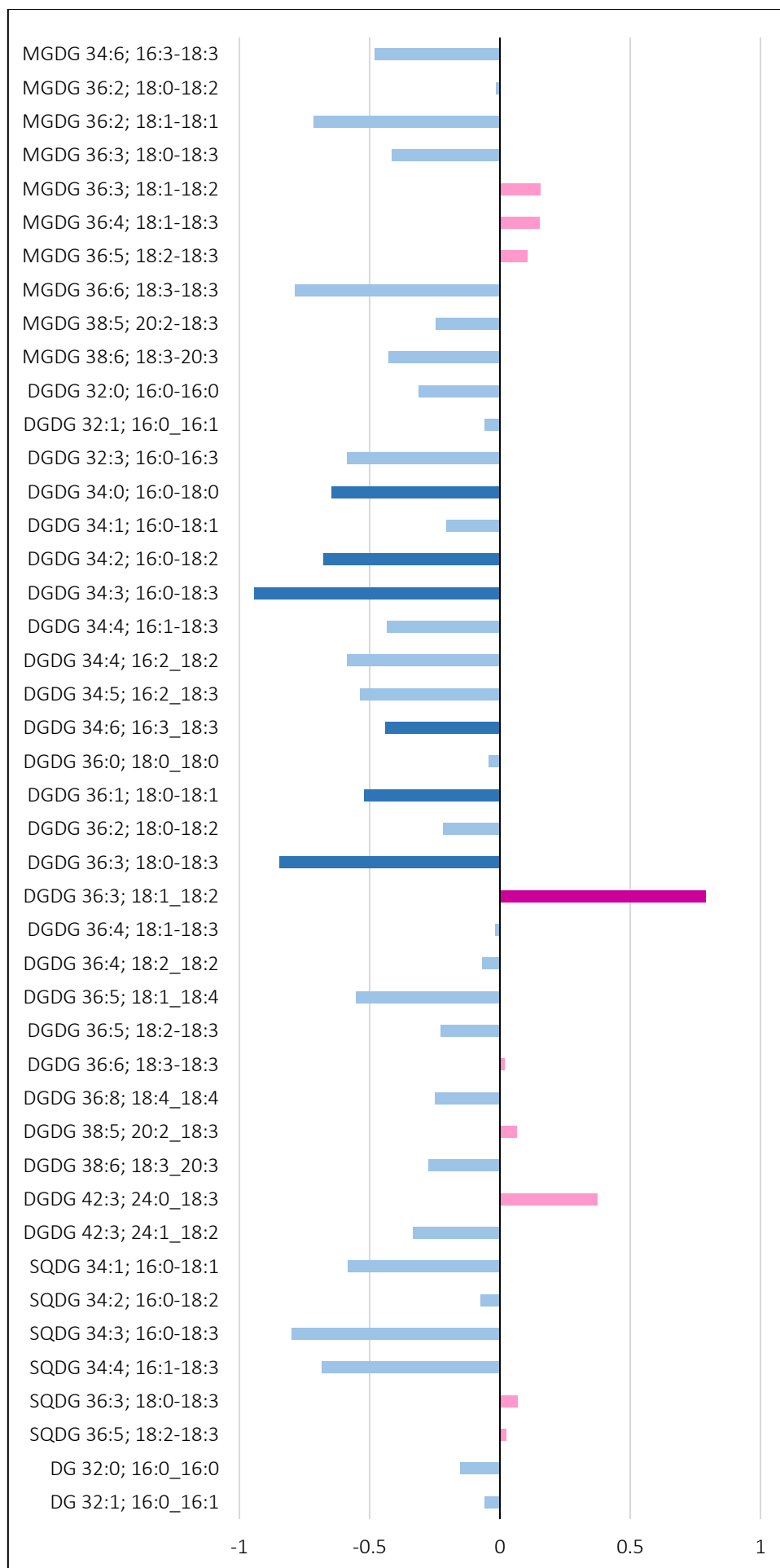
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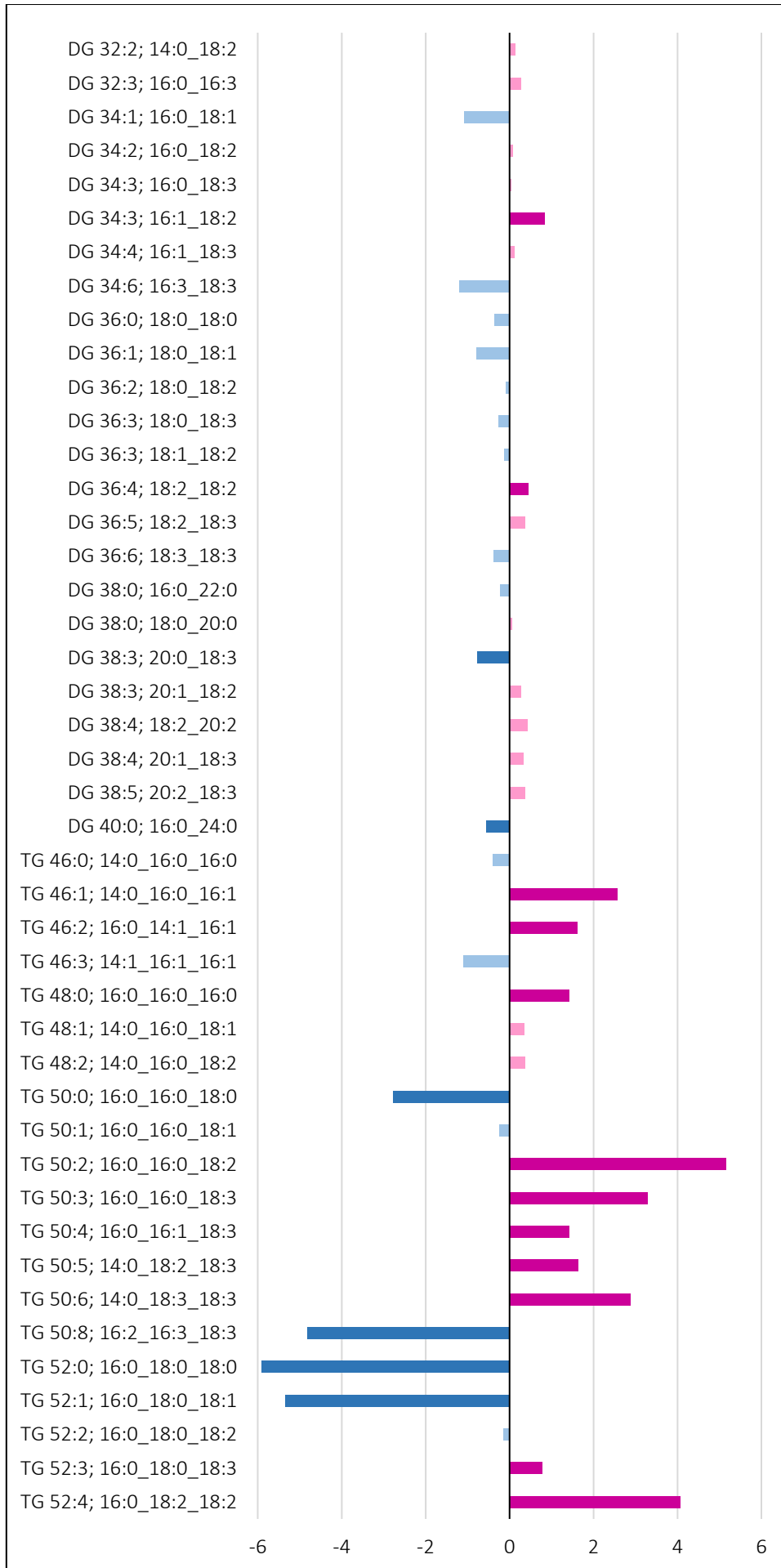
(c)



(d)



(e)



(f)

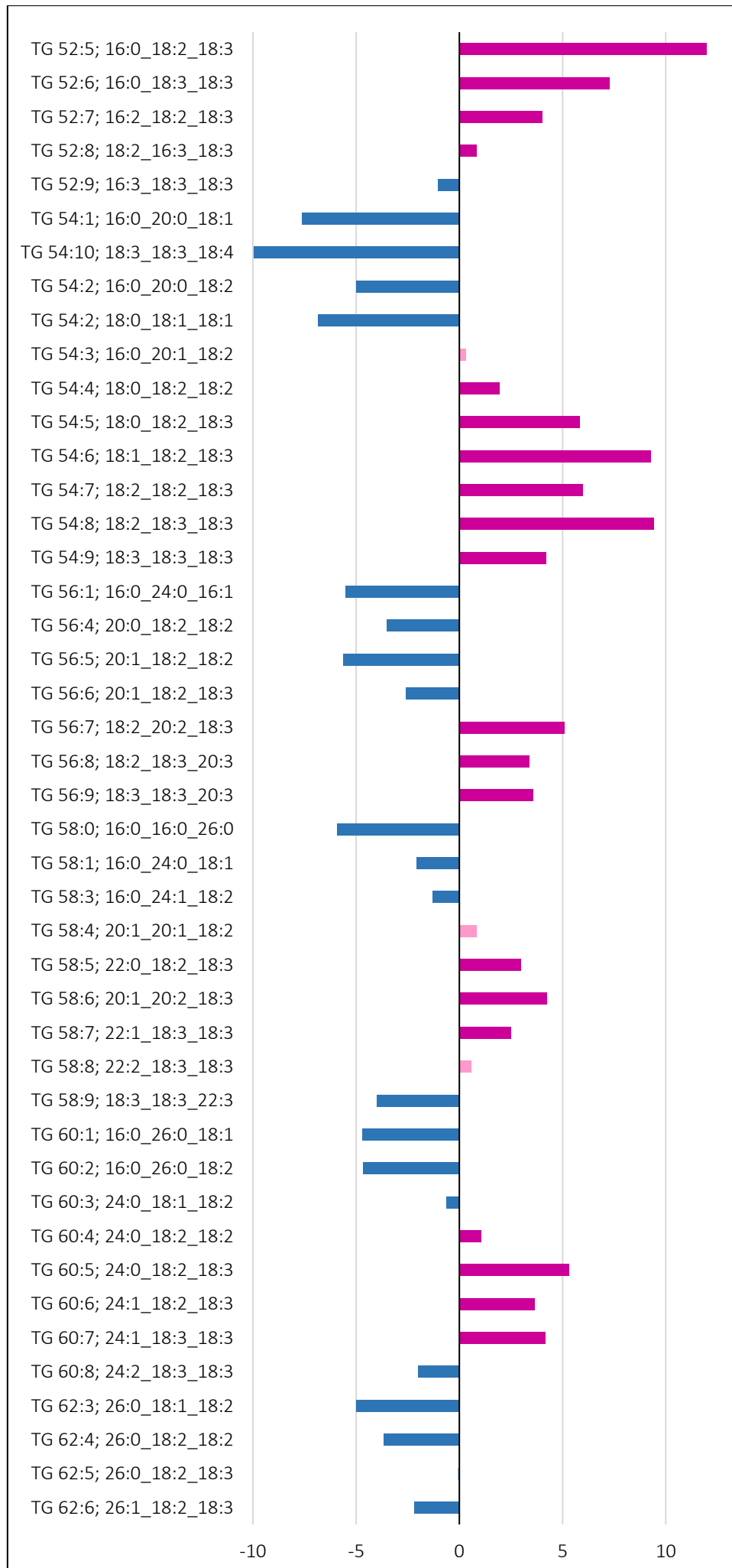
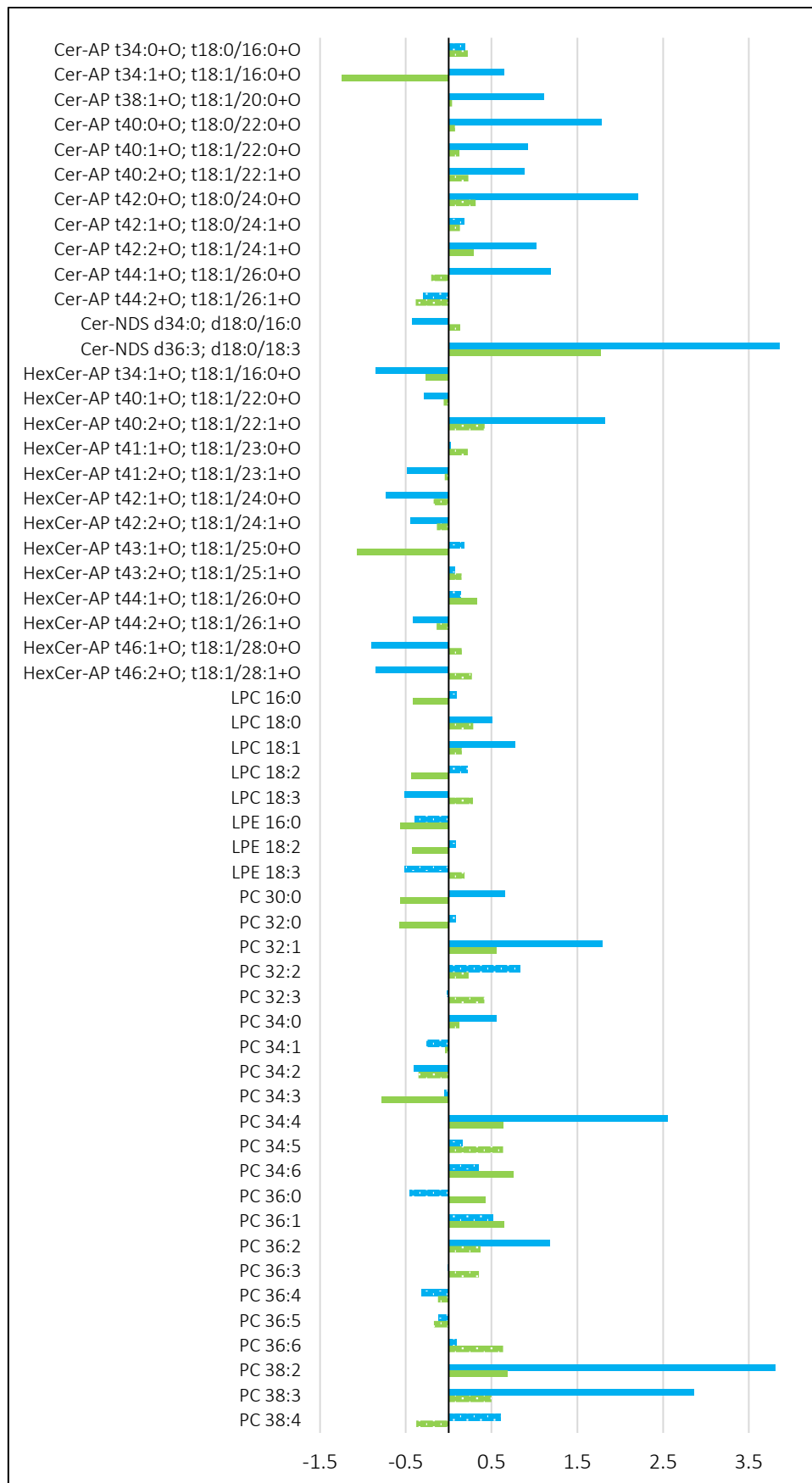
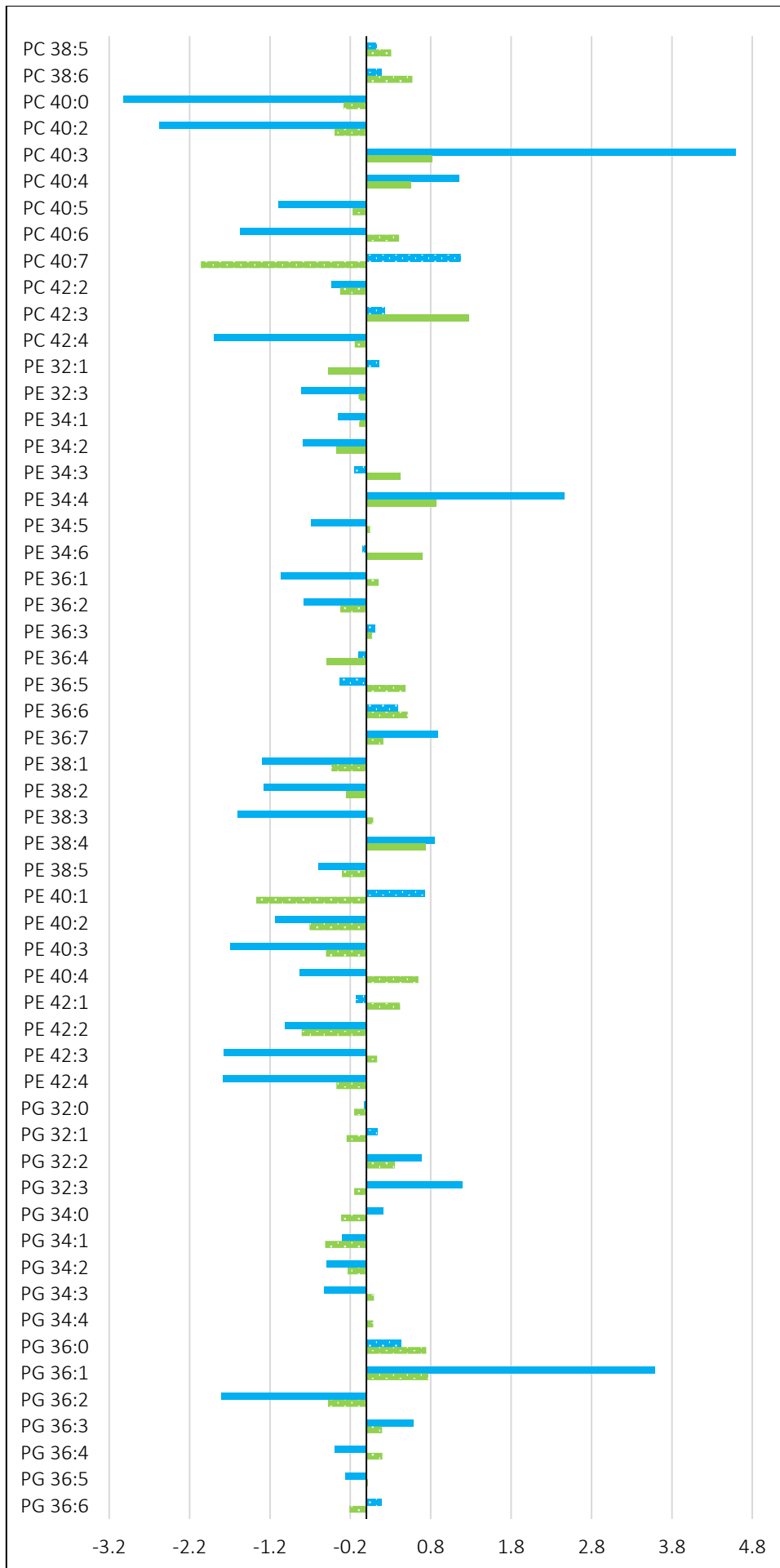


Figure S5 (a-h) Log₂ fold change comparison of the levels of lipid species in 1.2 cm long siliques compared to 1 cm long siliques (Log₂ 1.2 cm/1 cm) (blue bars) and in 1.5 cm long siliques compared to 1.2 cm long siliques (Log₂ 1.5 cm/ 1.2 cm) (green bars)

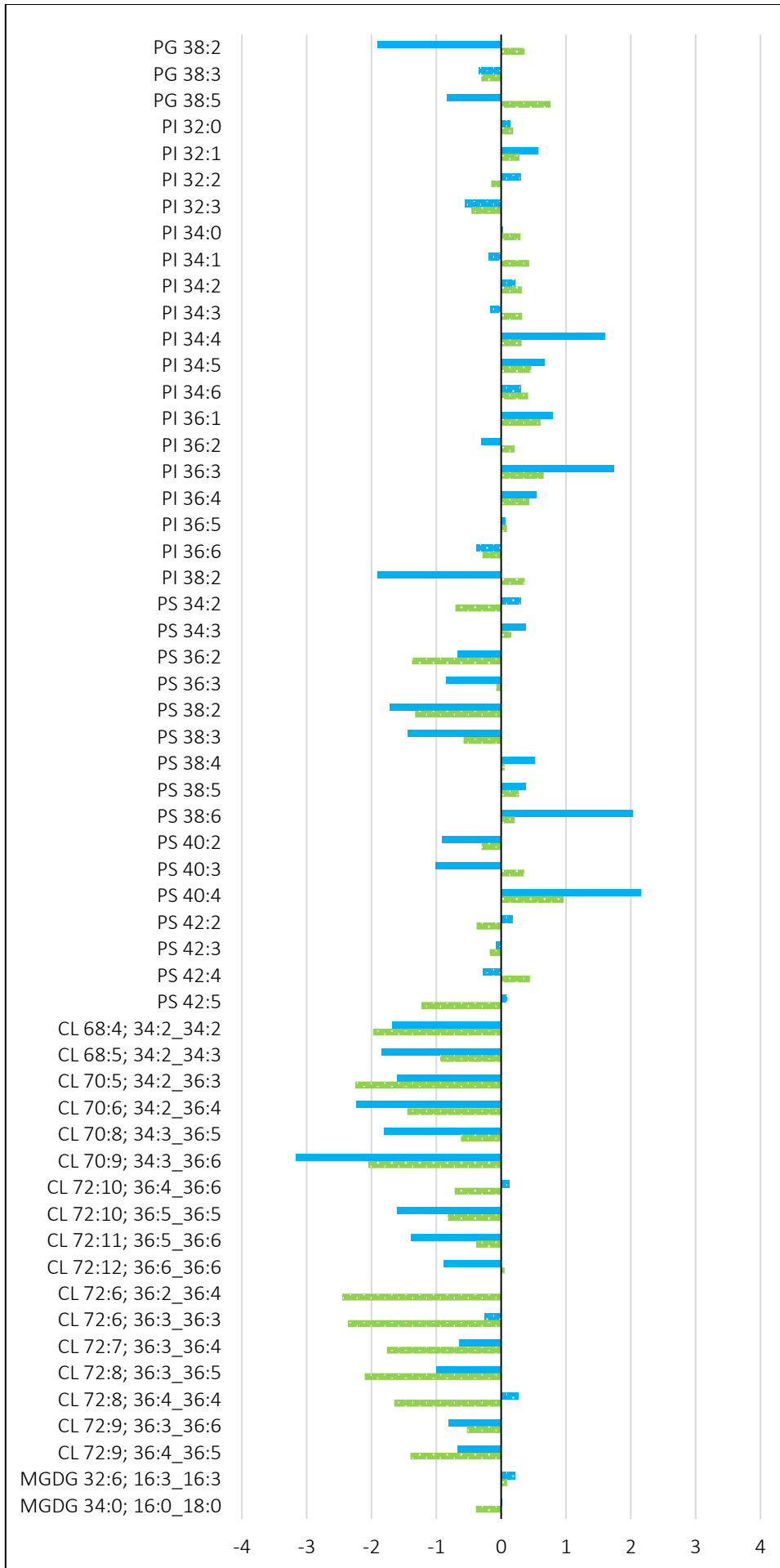
(a)



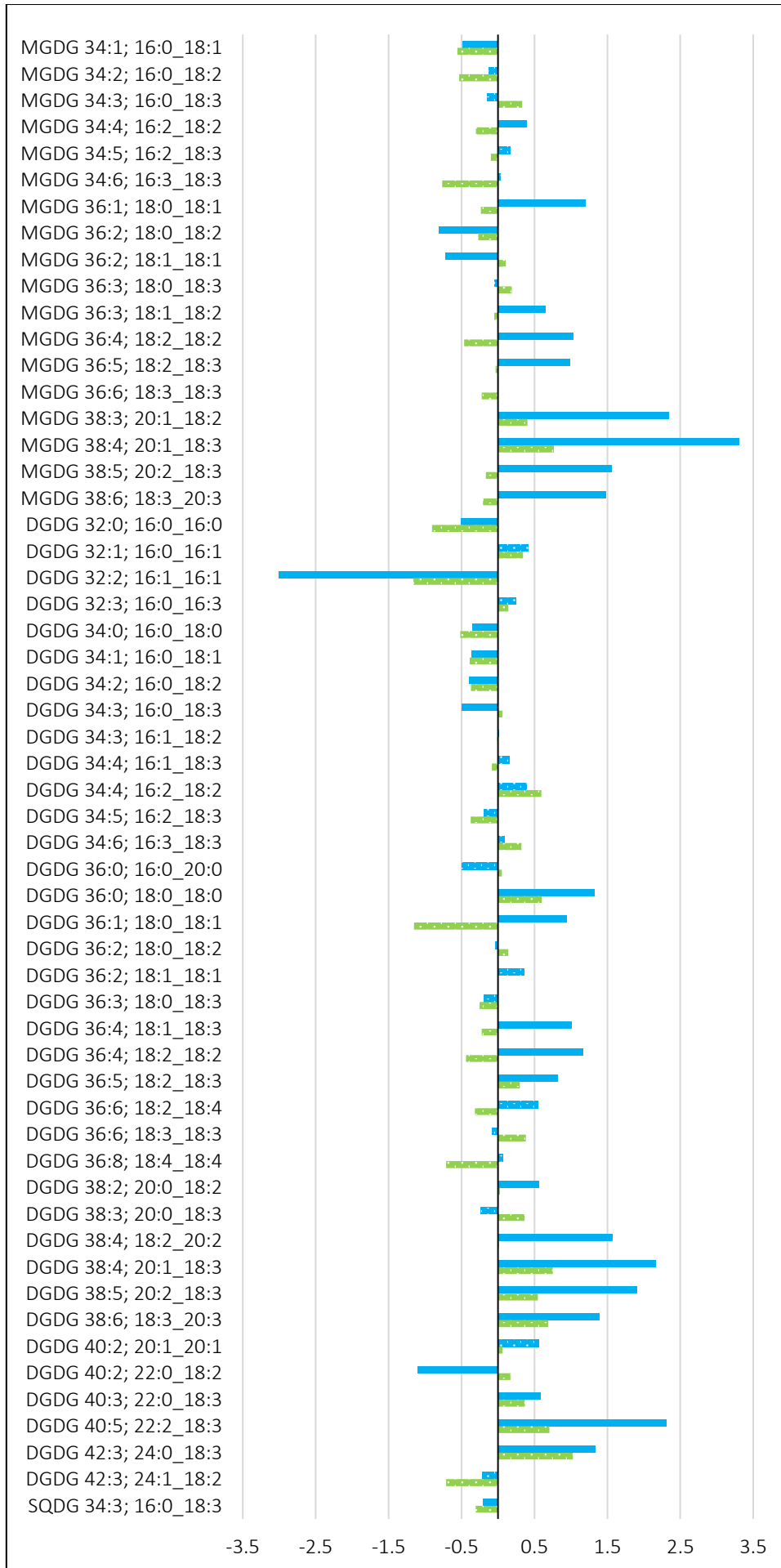
(b)



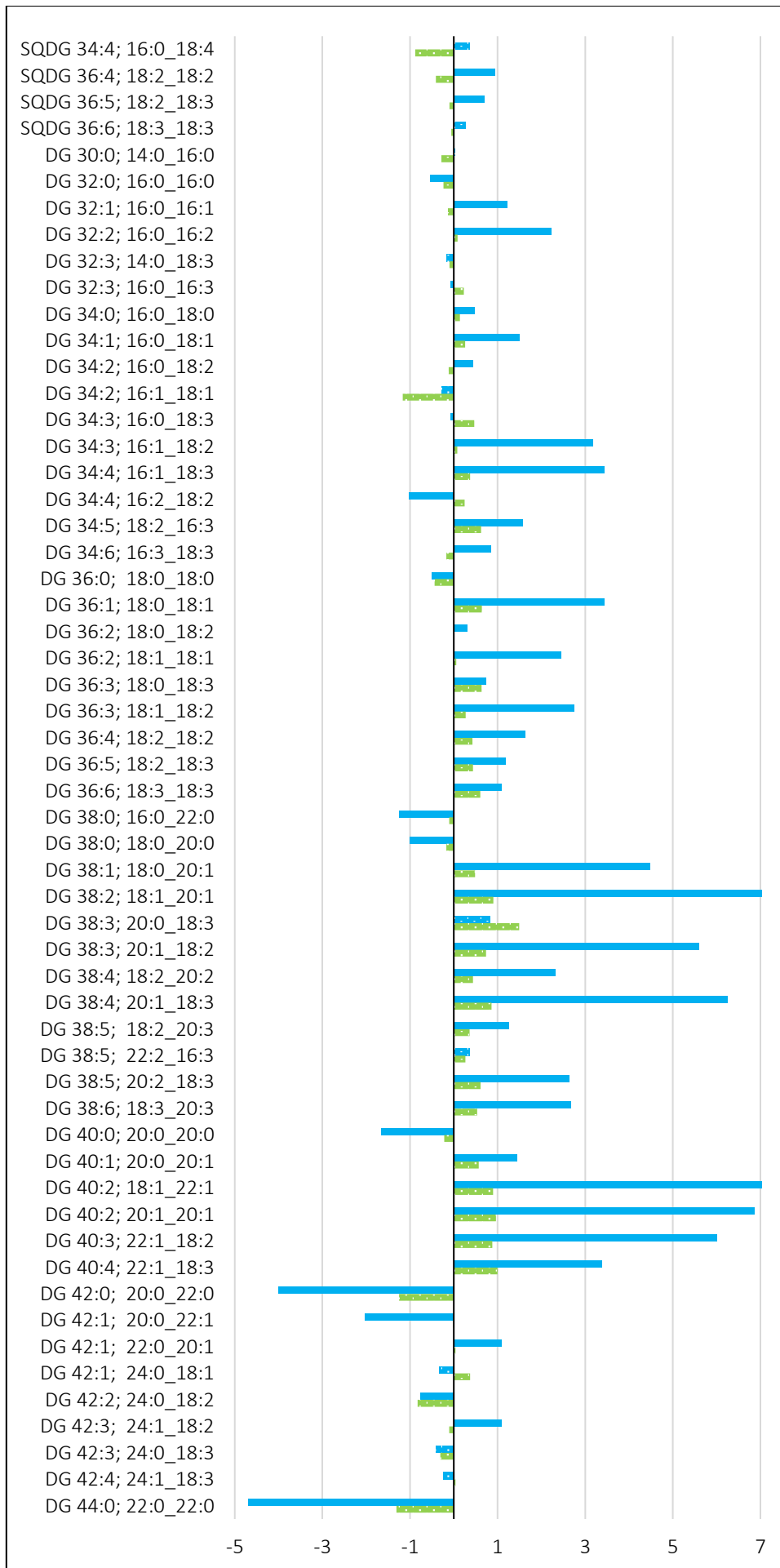
(c)



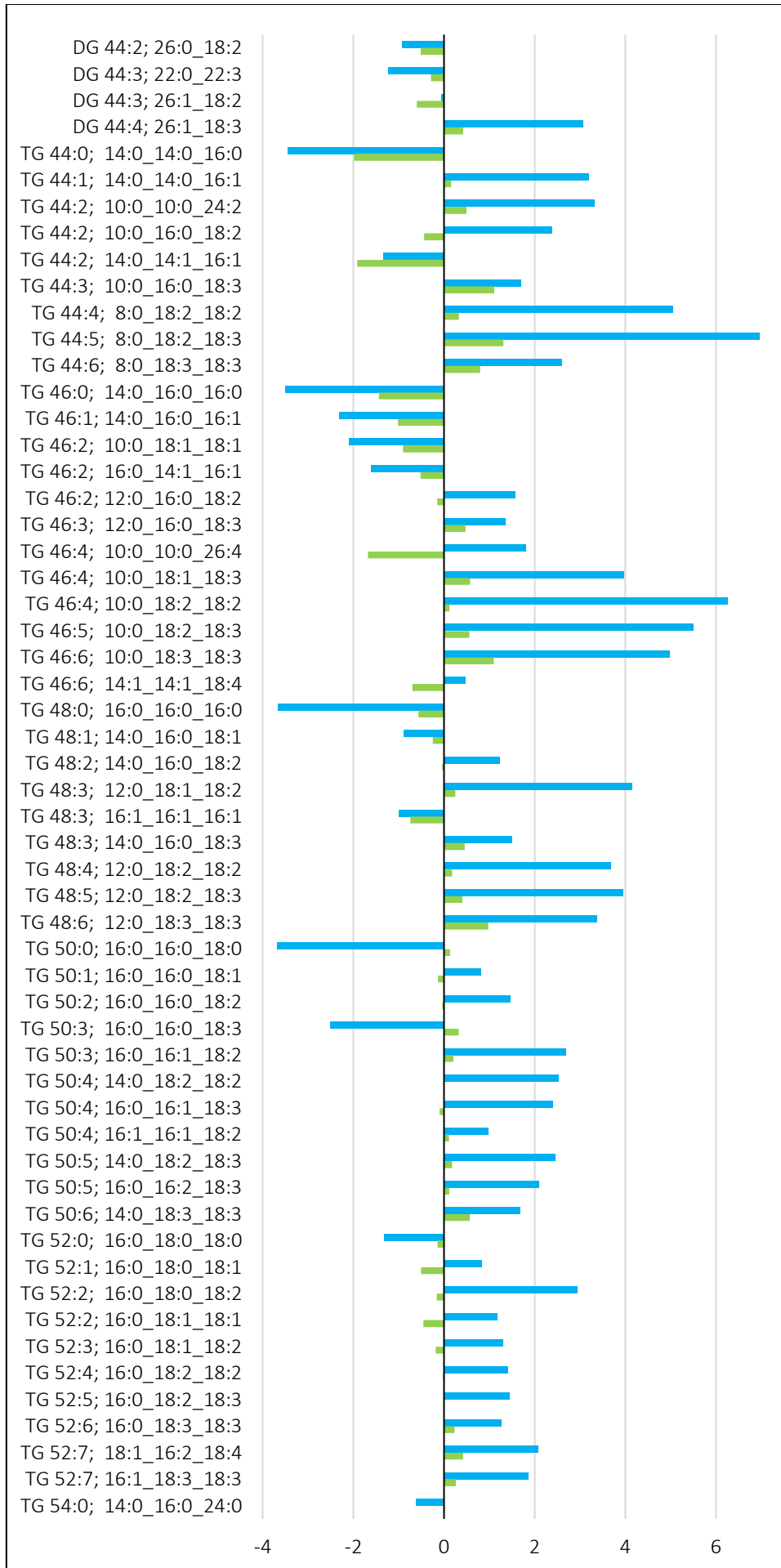
(d)



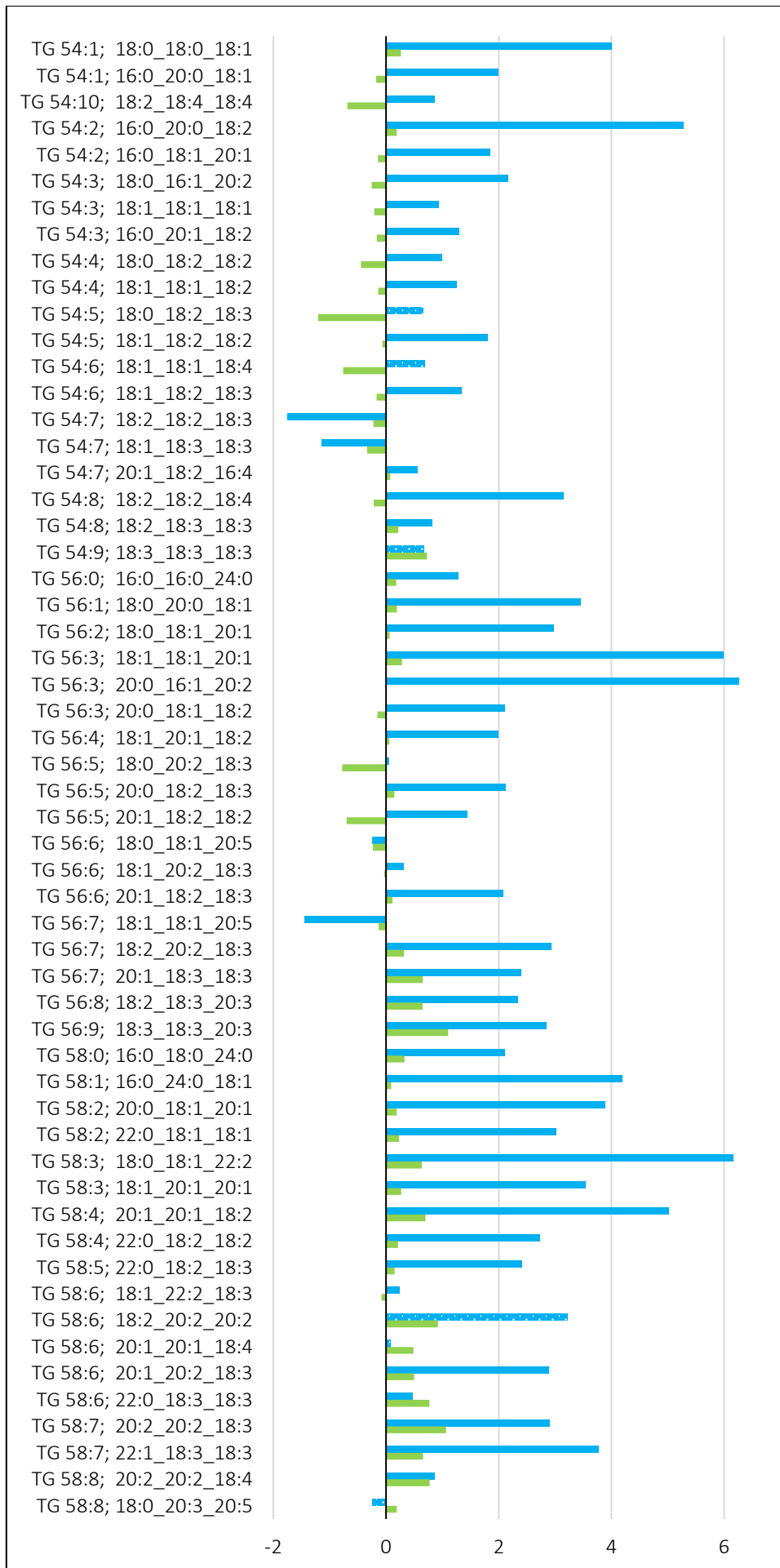
(e)



(f)



(g)



(h)

