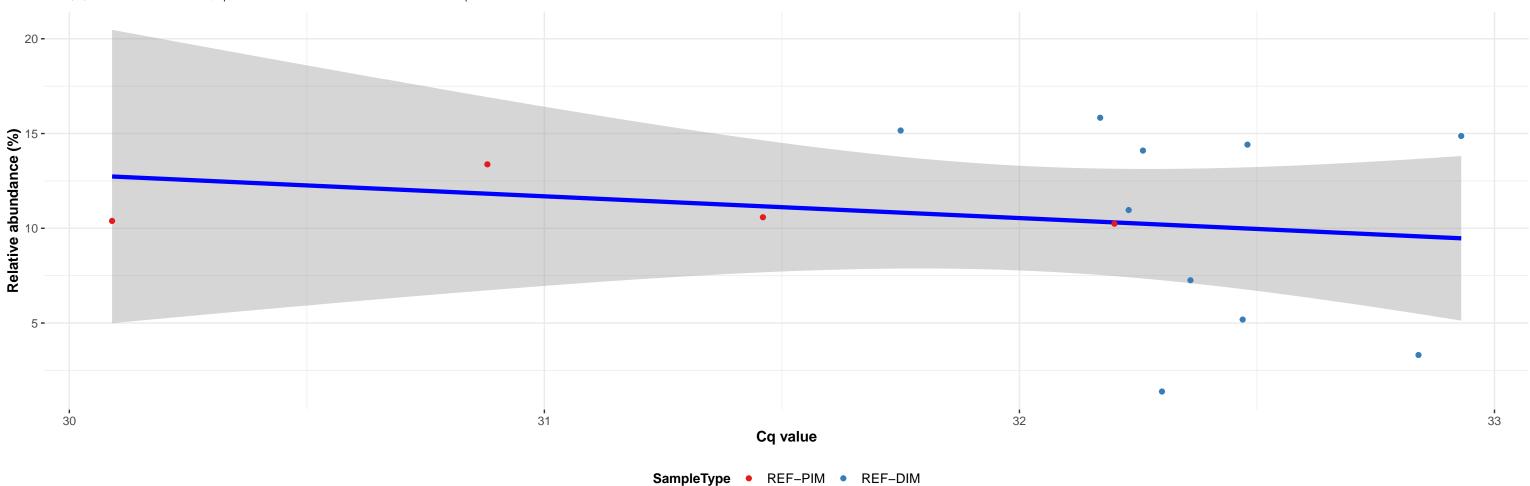


Relative abundance (%)

Cq value

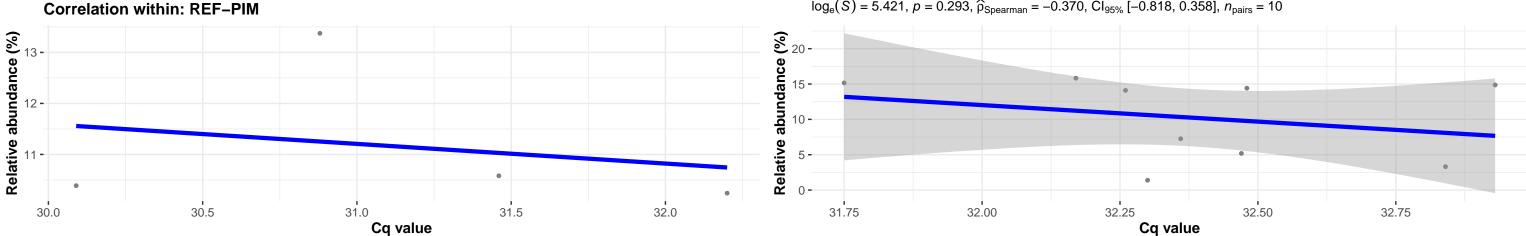
k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Betaproteobacteriales; f\_\_Burkholderiaceae; g\_\_Undibacterium; NA

 $log_e(S) = 6.306$ , p = 0.483,  $\hat{\rho}_{Spearman} = -0.204$ ,  $Cl_{95\%}$  [-0.673, 0.381],  $n_{pairs} = 14$ 

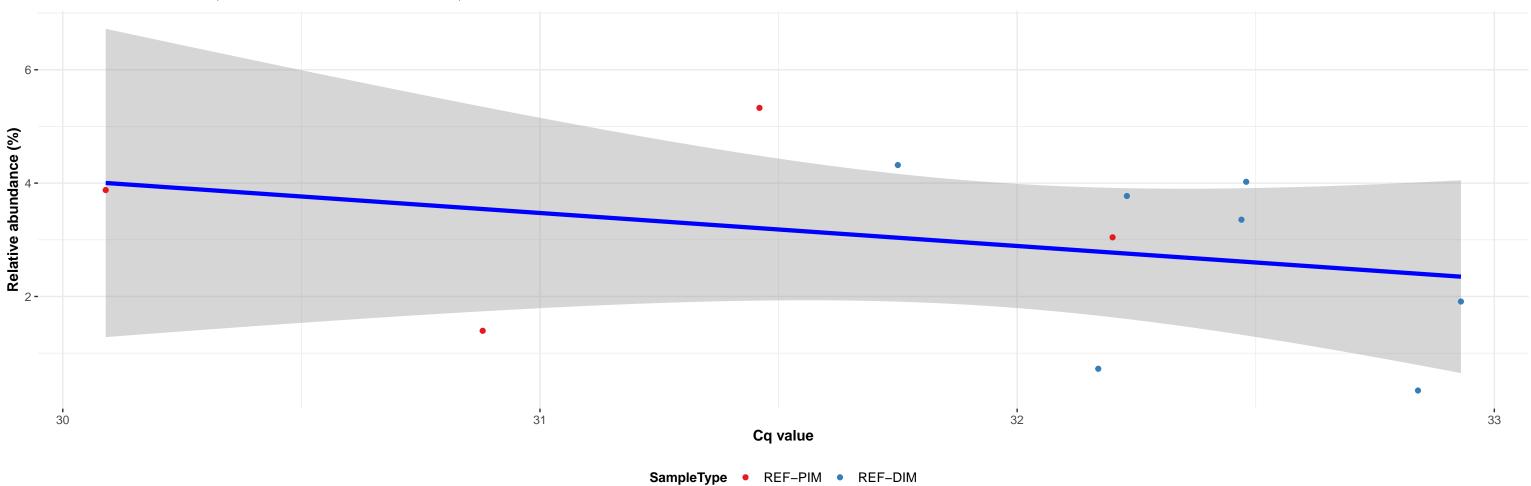


## **Correlation within: REF-DIM**

 $log_e(S) = 5.421$ , p = 0.293,  $\hat{\rho}_{Spearman} = -0.370$ ,  $Cl_{95\%}$  [-0.818, 0.358],  $n_{pairs} = 10$ 

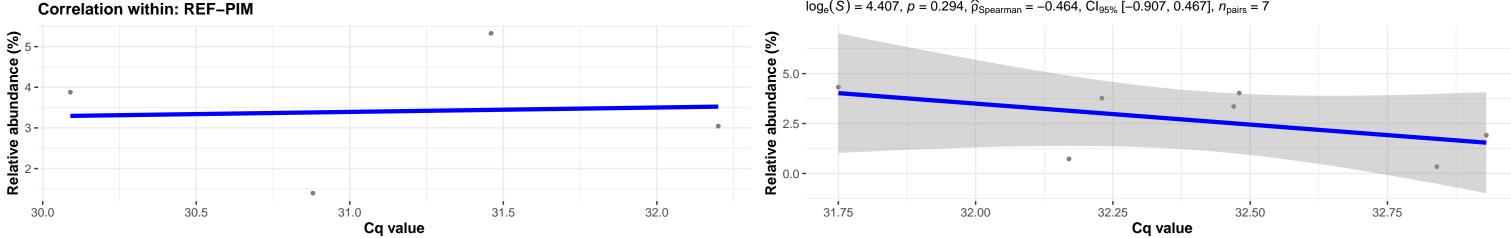


 $\log_{e}(S) = 5.684, p = 0.312, \hat{\rho}_{Spearman} = -0.336, Cl_{95\%} [-0.787, 0.348], n_{pairs} = 11$ 



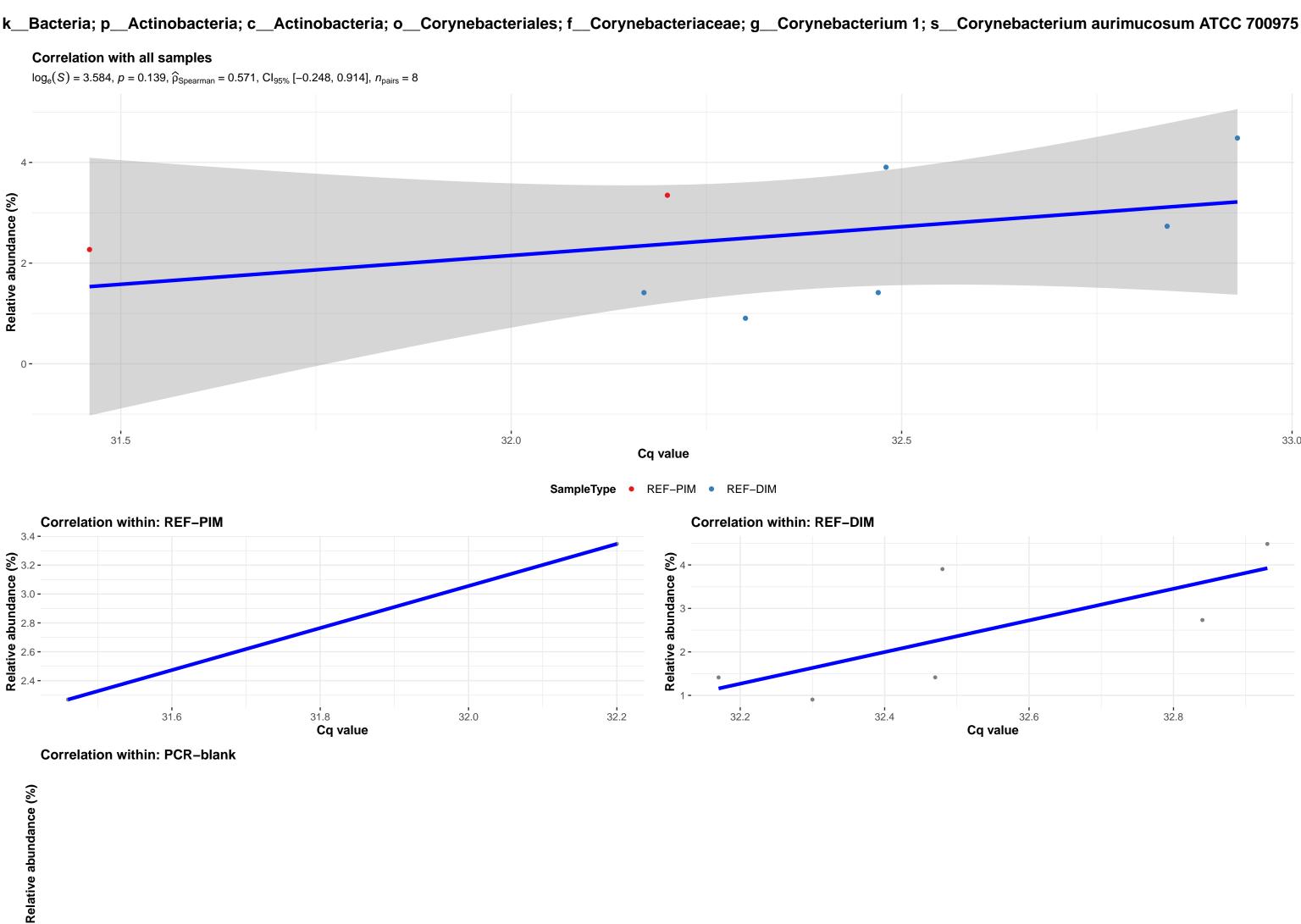
# **Correlation within: REF-DIM**

 $log_e(S) = 4.407$ , p = 0.294,  $\widehat{\rho}_{Spearman} = -0.464$ ,  $Cl_{95\%}$  [-0.907, 0.467],  $n_{pairs} = 7$ 

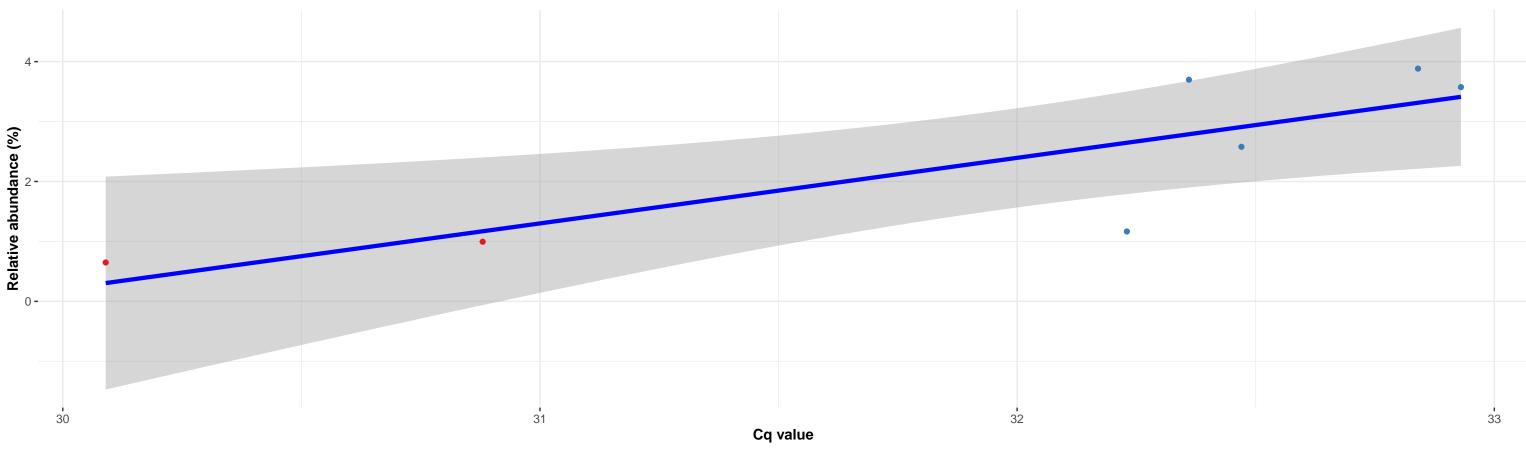


#### **Correlation within: PCR-blank**

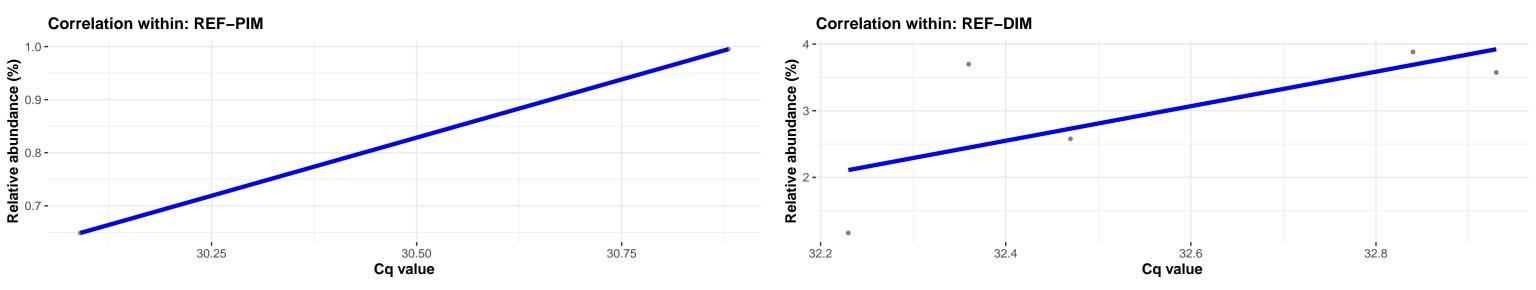
Relative abundance (%)

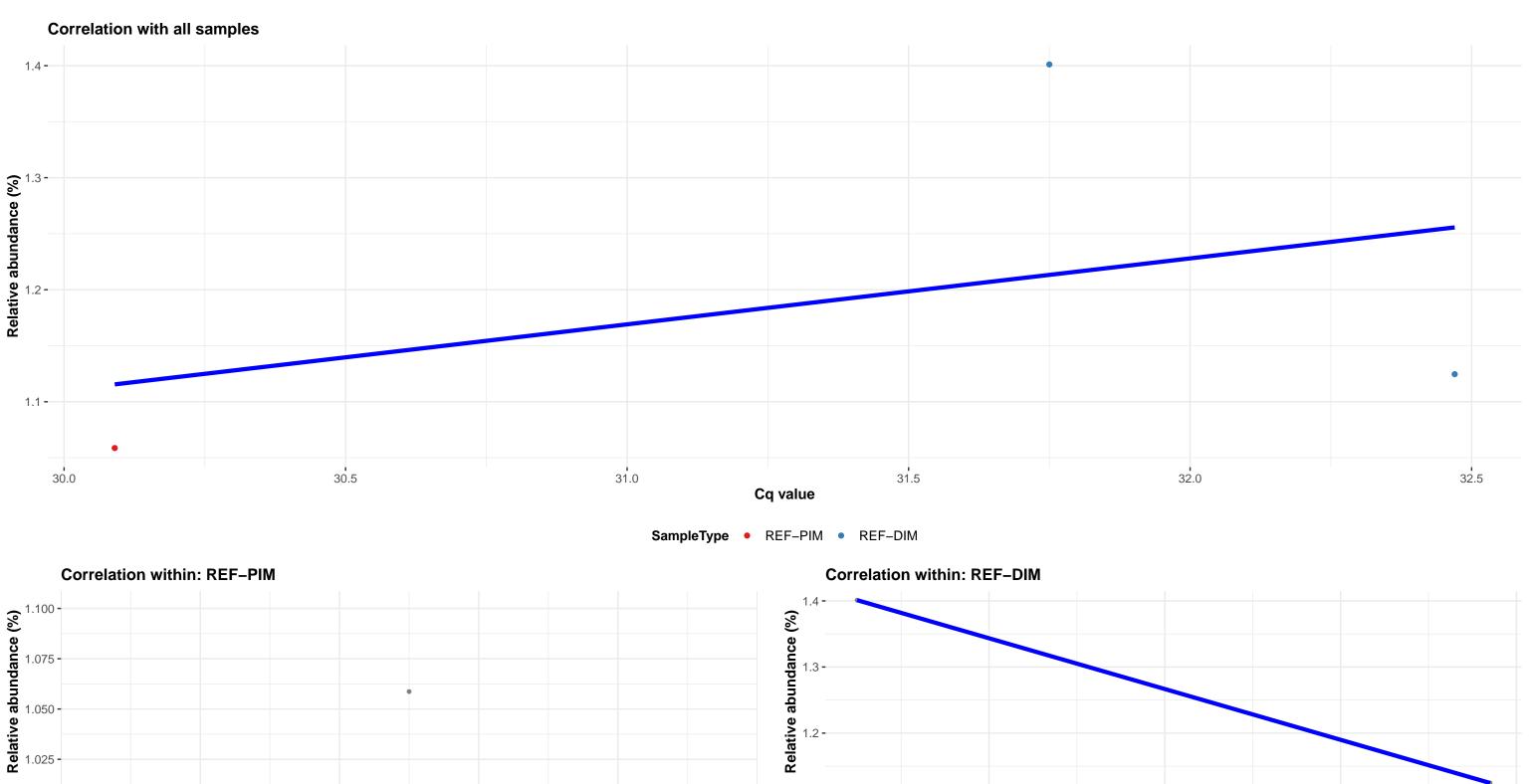


 $log_e(S) = 2.303, p = 0.023, \hat{\rho}_{Spearman} = 0.821, Cl_{95\%} [0.151, 0.974], n_{pairs} = 7$ 









30.1

30.12

31.9

32.3

32.1

Cq value

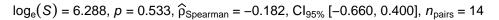
Correlation within: PCR-blank

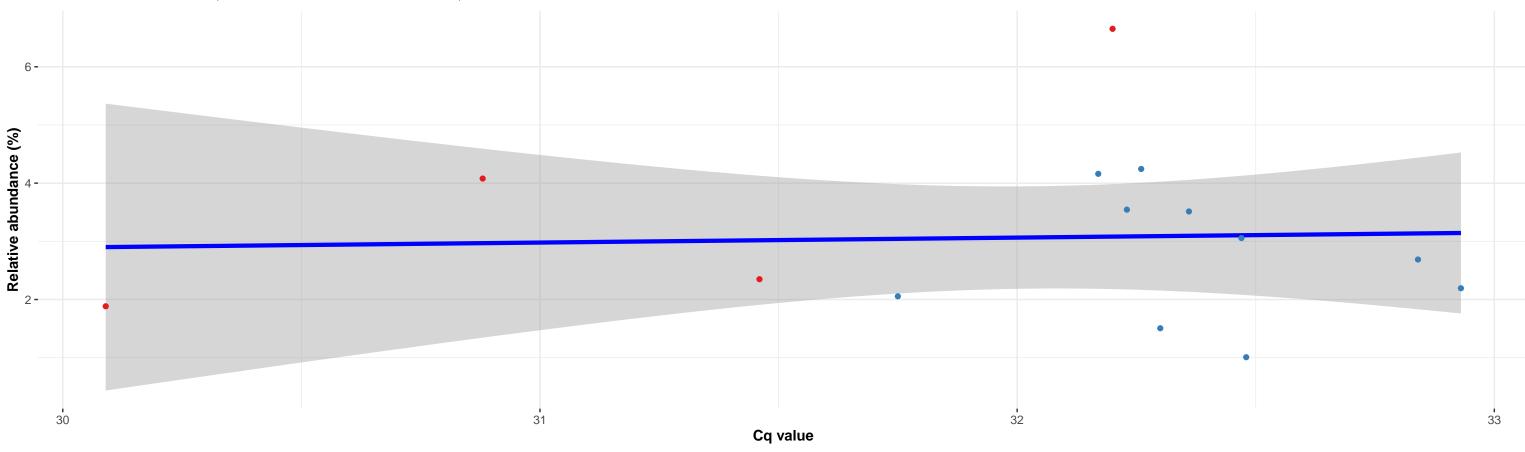
30.06

30.04

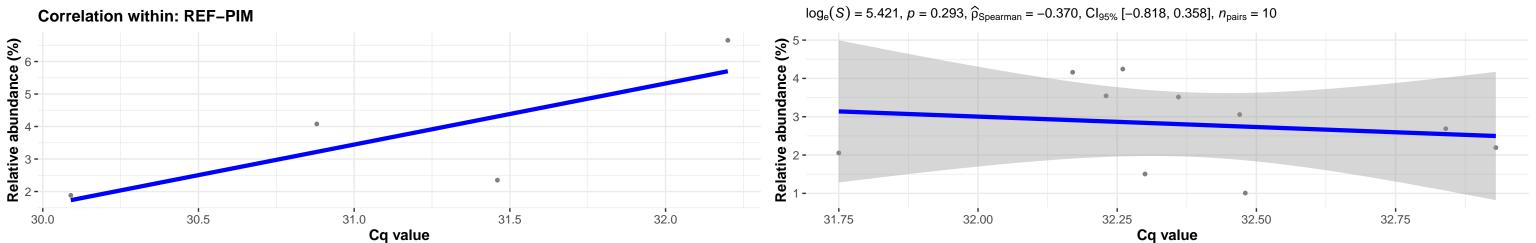
Cq value

30.10



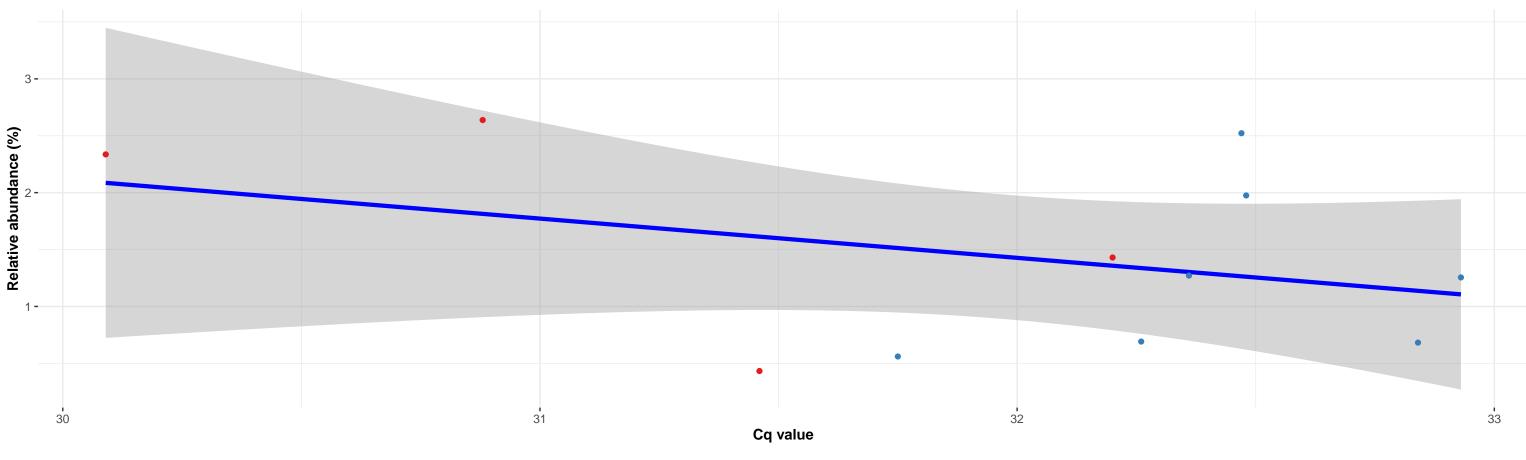


# Correlation within: REF-DIM



**SampleType** • REF-PIM • REF-DIM

 $log_e(S) = 5.529, p = 0.670, \hat{\rho}_{Spearman} = -0.145, Cl_{95\%} [-0.696, 0.513], n_{pairs} = 11$ 

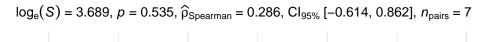


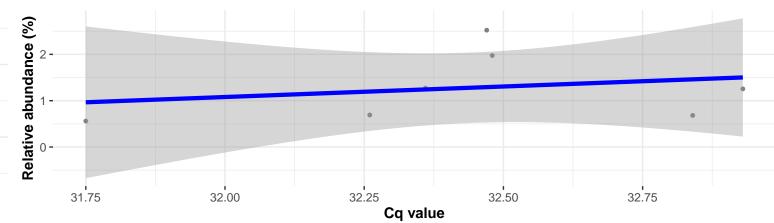
## Correlation within: REF-DIM

**SampleType** • REF-PIM • REF-DIM

32.0

31.5





Correlation within: PCR-blank

30.5

**Correlation within: REF-PIM** 

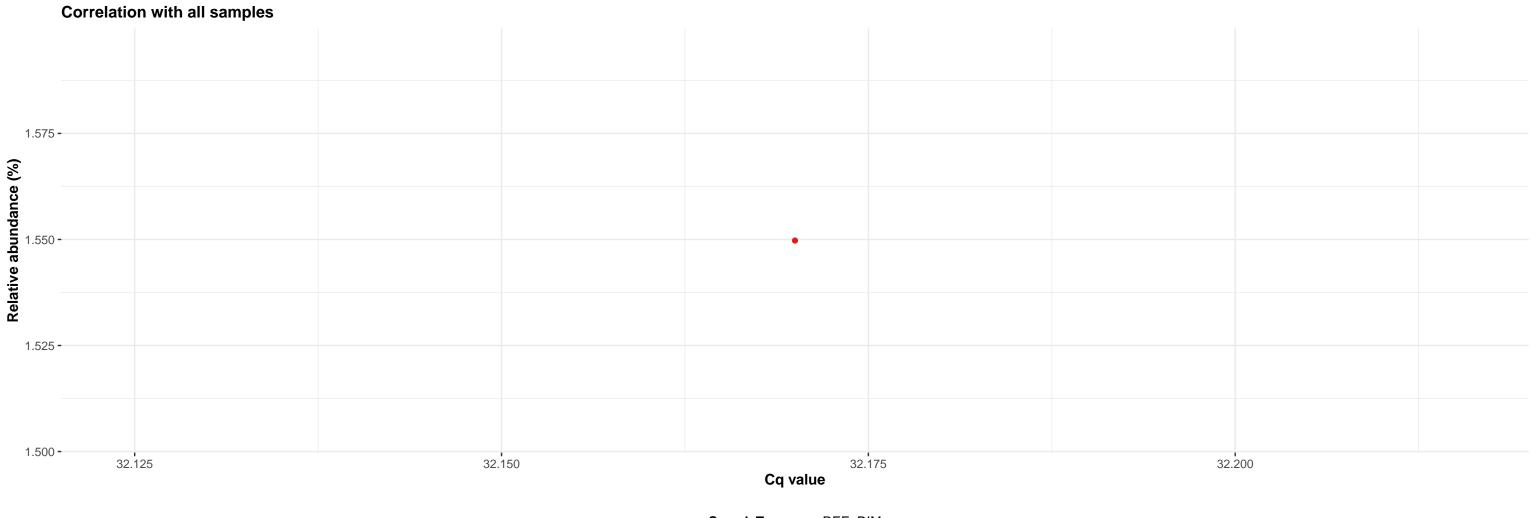
Relative abundance (%)

30.0

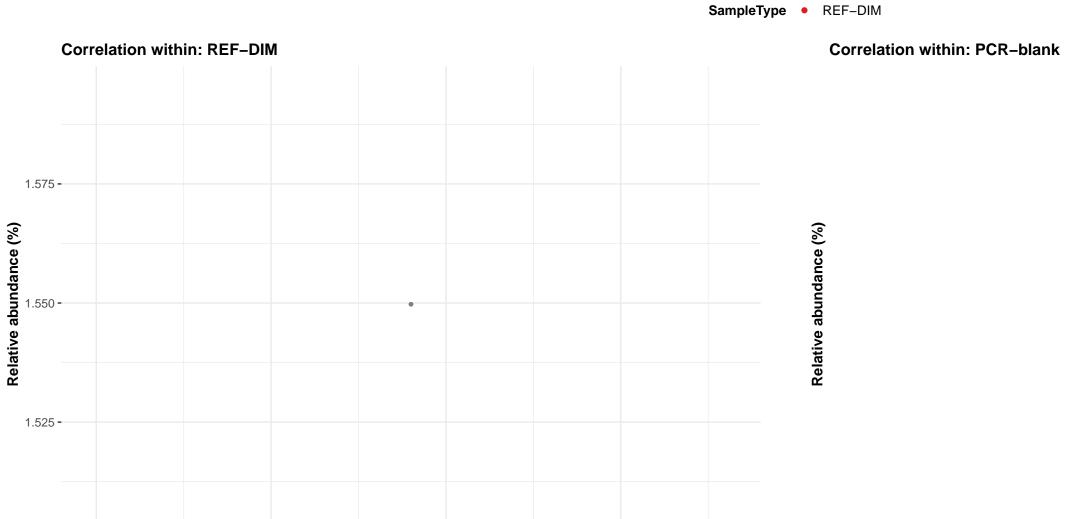
31.0

Cq value

k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Planococcaceae; g\_\_Lysinibacillus; s\_\_uncultured bacterium



Cq value



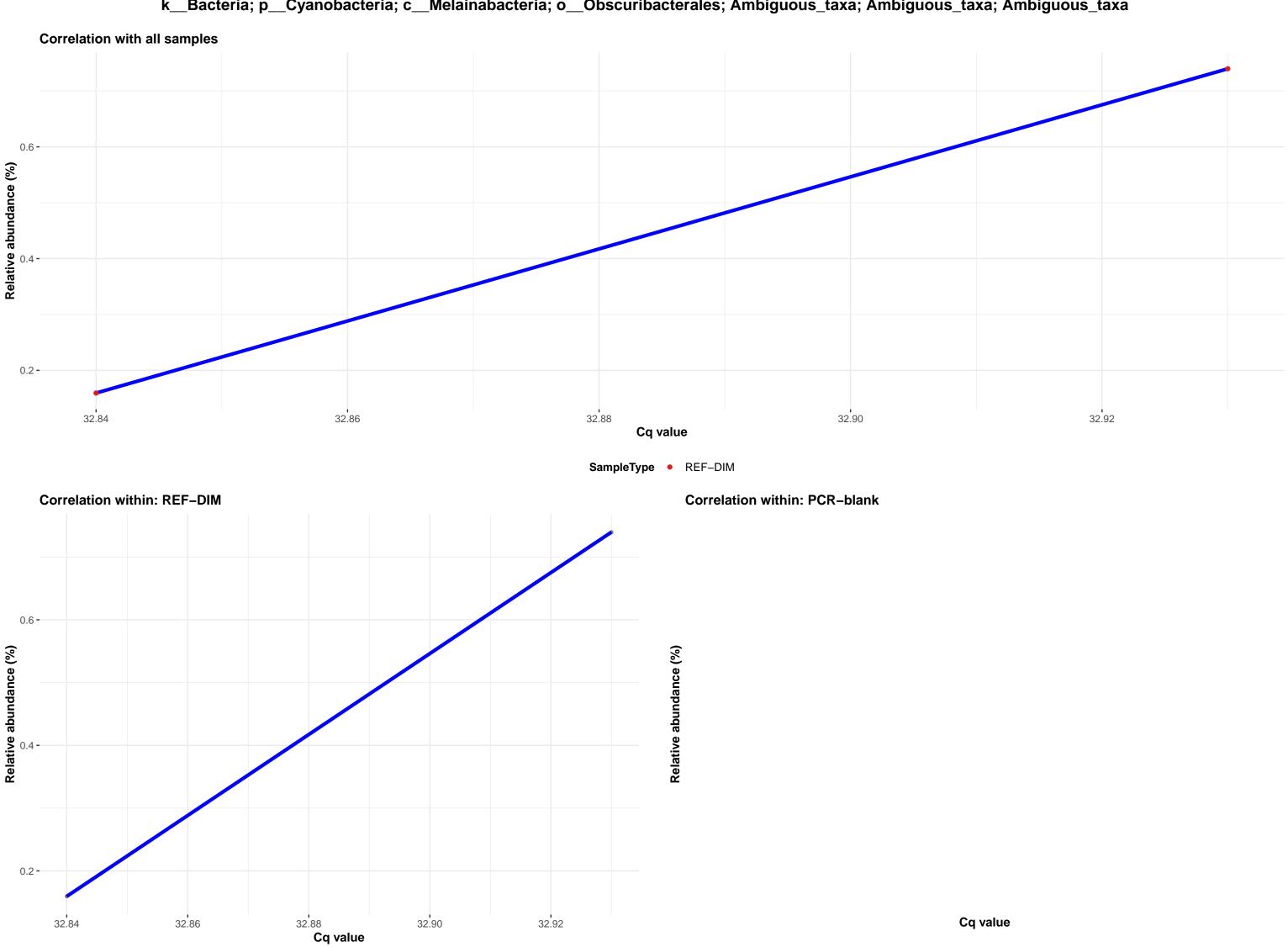
32.200

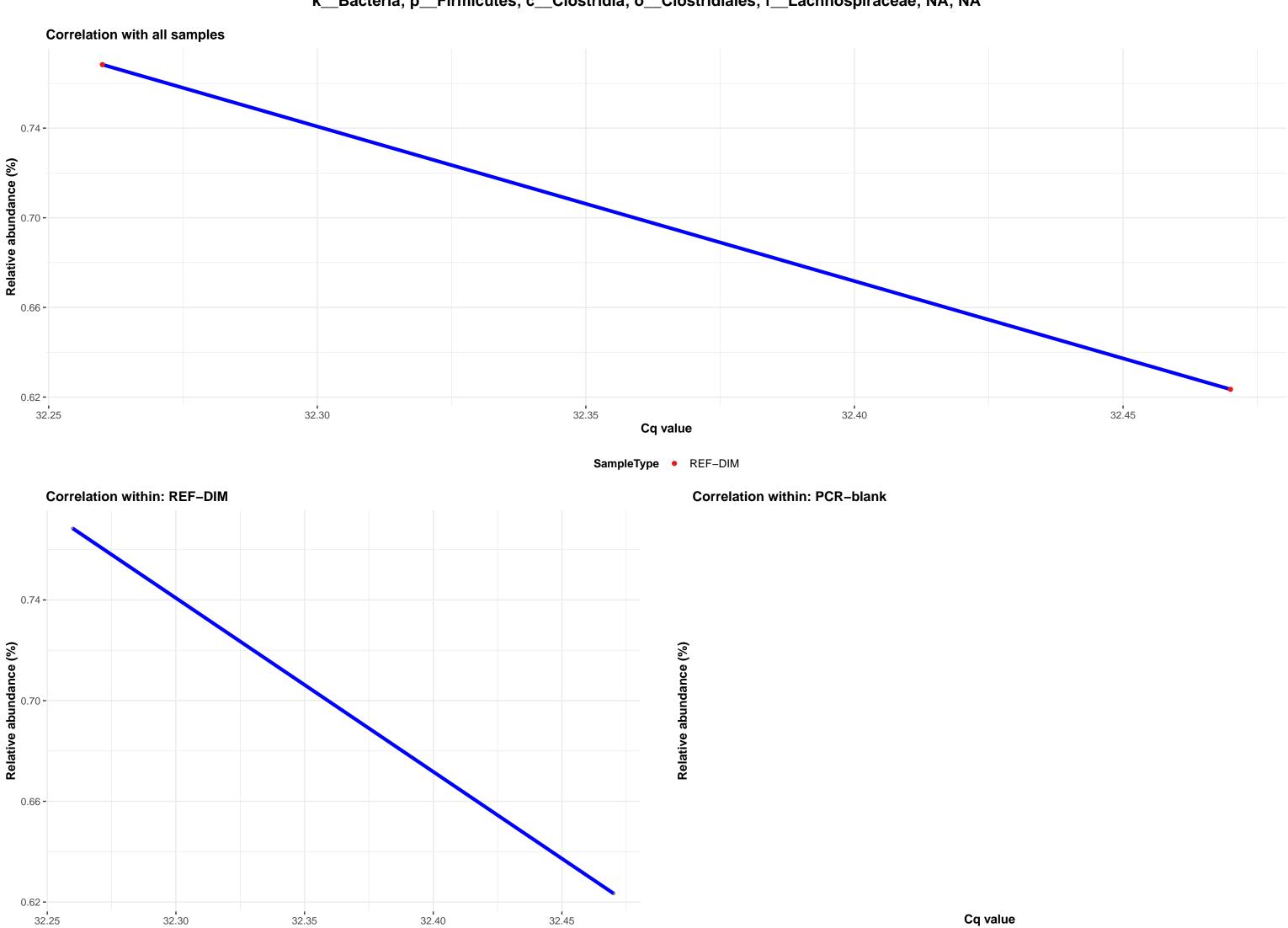
32.175

Cq value

1.500 -

32.125



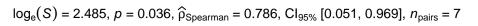


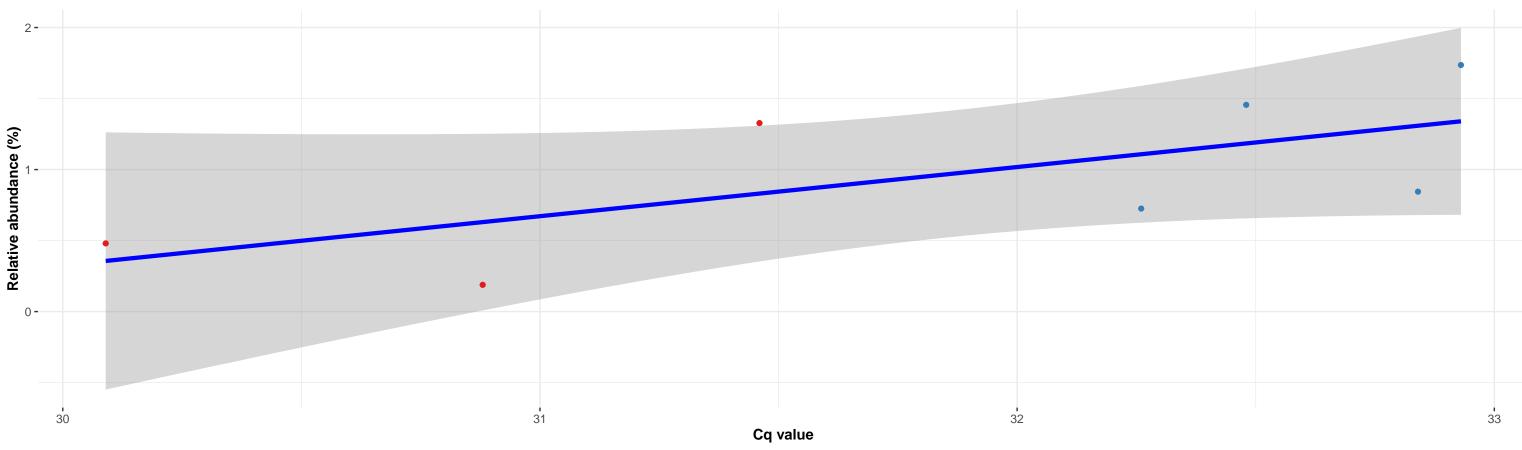
Cq value

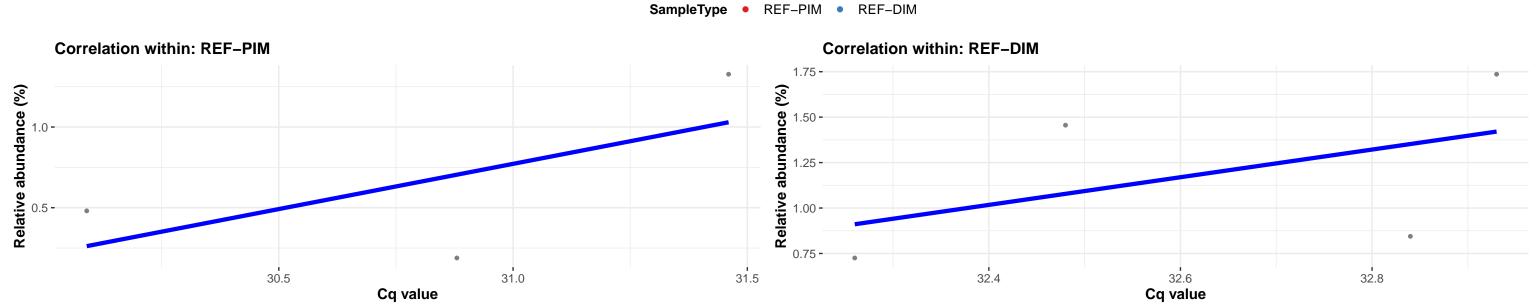
Cq value

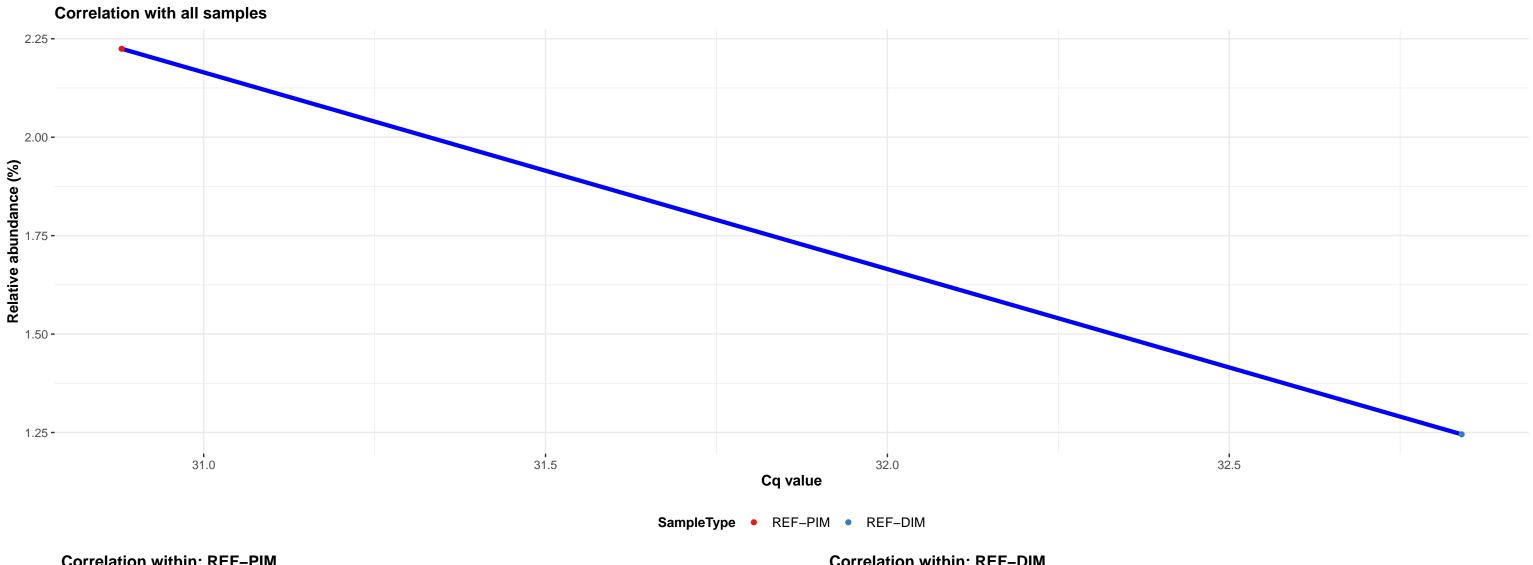
k\_Bacteria; p\_RsaHF231; c\_uncultured bacterium; o\_uncultured bacterium; f\_uncultured bacterium; g\_uncultured bacterium; s\_uncultured bacterium

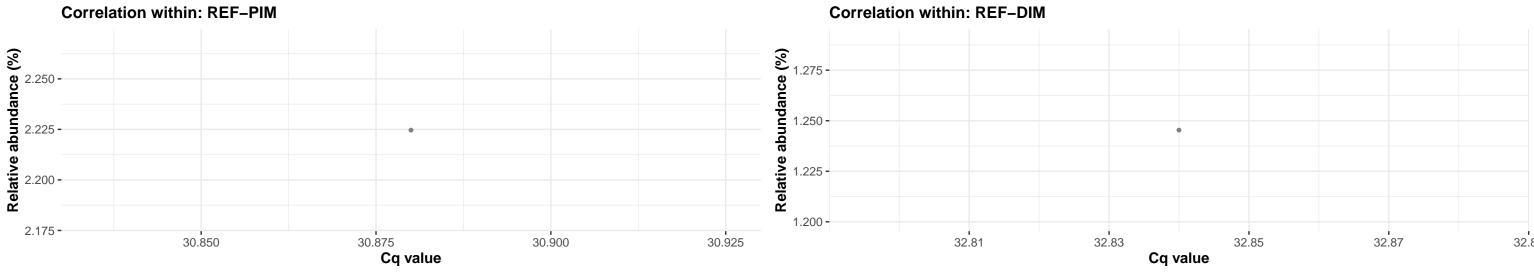












Cq value

1.2 -

Relative abundance (%)

0.8 -

1.4 -

1.2 **-**

Relative abundance (%)

0.8 -

32.3

32.4

32.5

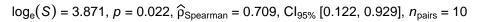
32.7

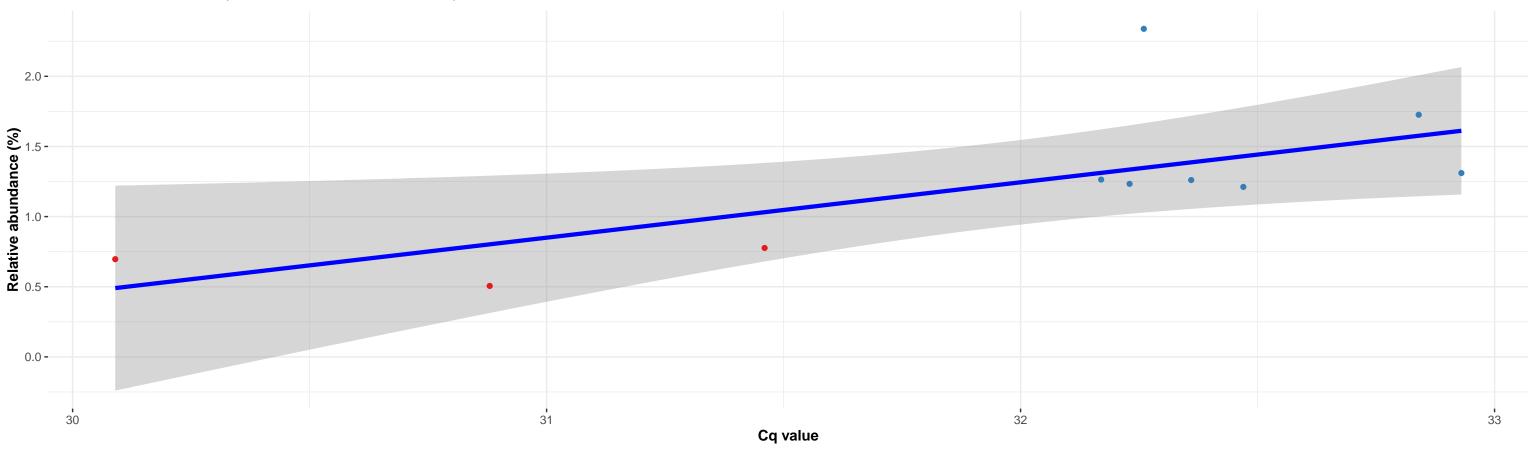
32.6

Cq value

32.8

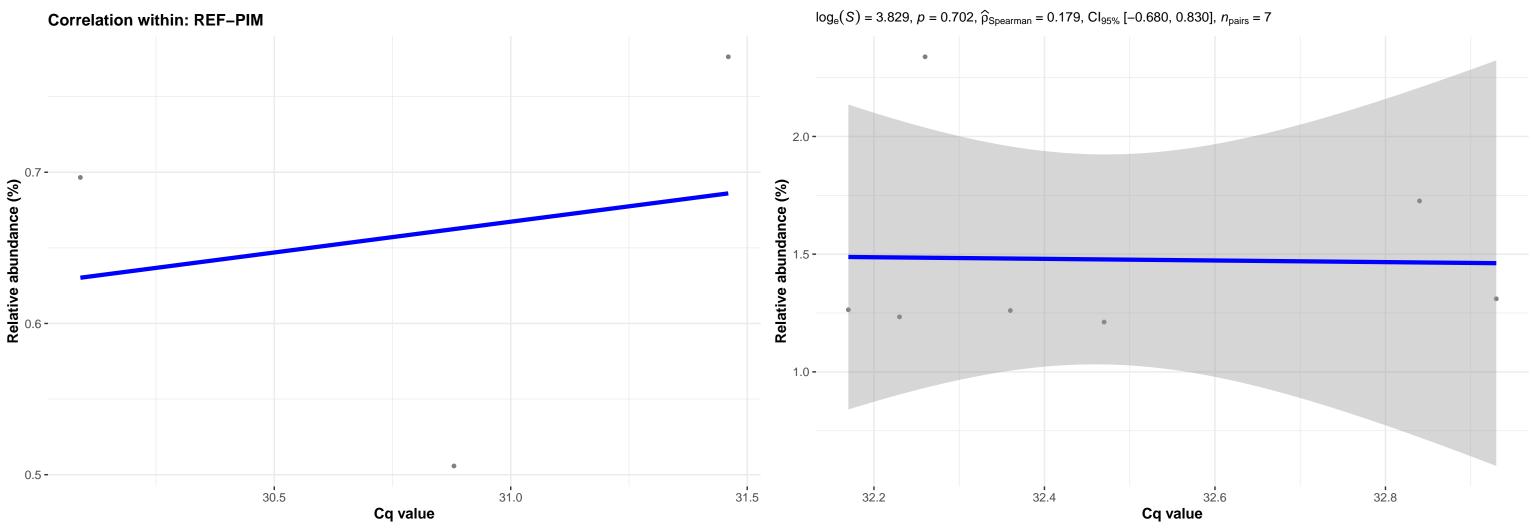


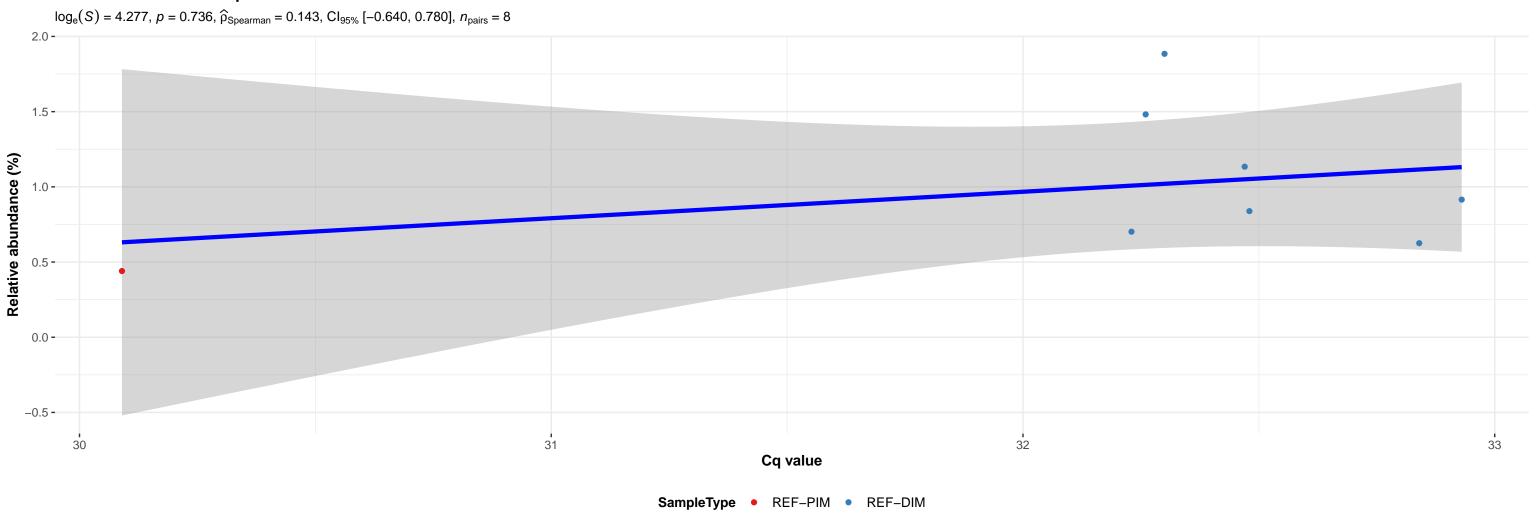




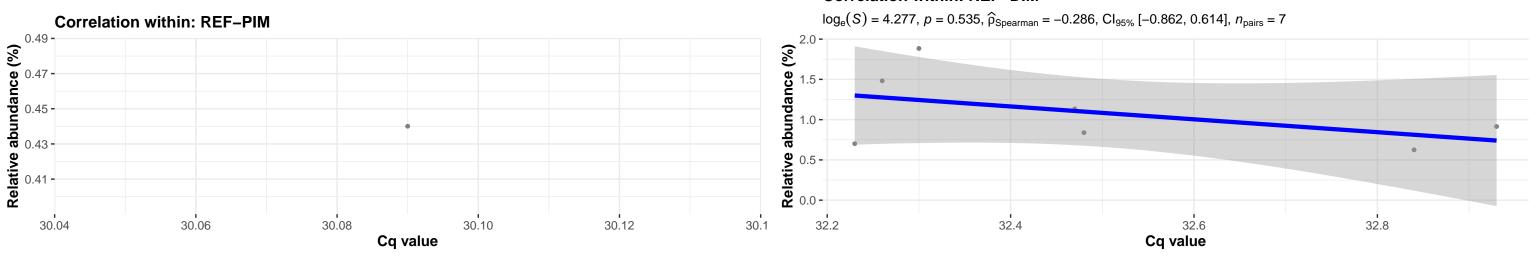
#### SampleType • REF-PIM • REF-DIM

#### Correlation within: REF-DIM

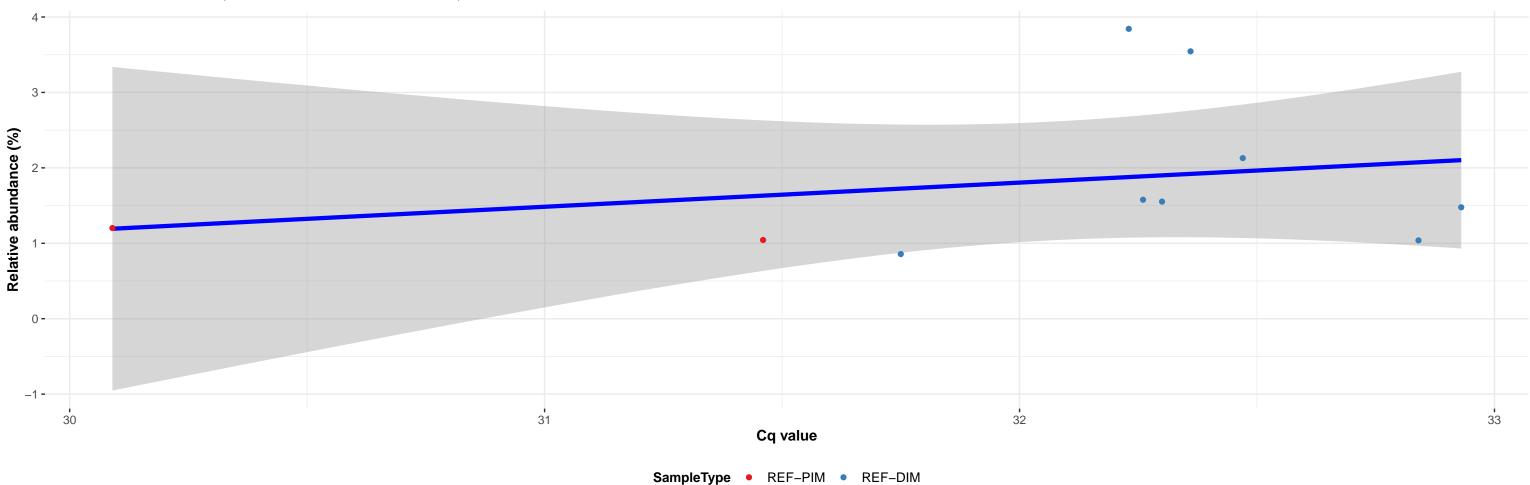




### Correlation within: REF-DIM



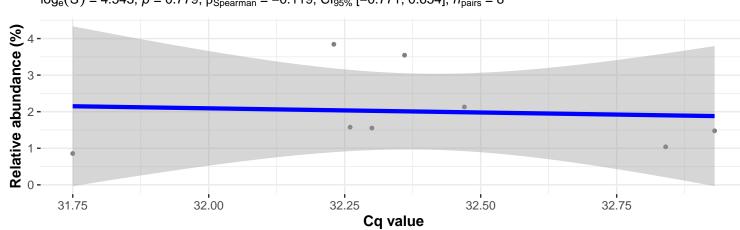
 $log_e(S) = 4.883$ , p = 0.580,  $\widehat{\rho}_{Spearman} = 0.200$ ,  $Cl_{95\%}$  [-0.508, 0.747],  $n_{pairs} = 10$ 



Correlation within: REF-PIM **Kelative apnudance (%)**1.10 - 1.10 - 1.05 30.5 31.0 31.5 Cq value

#### Correlation within: REF-DIM

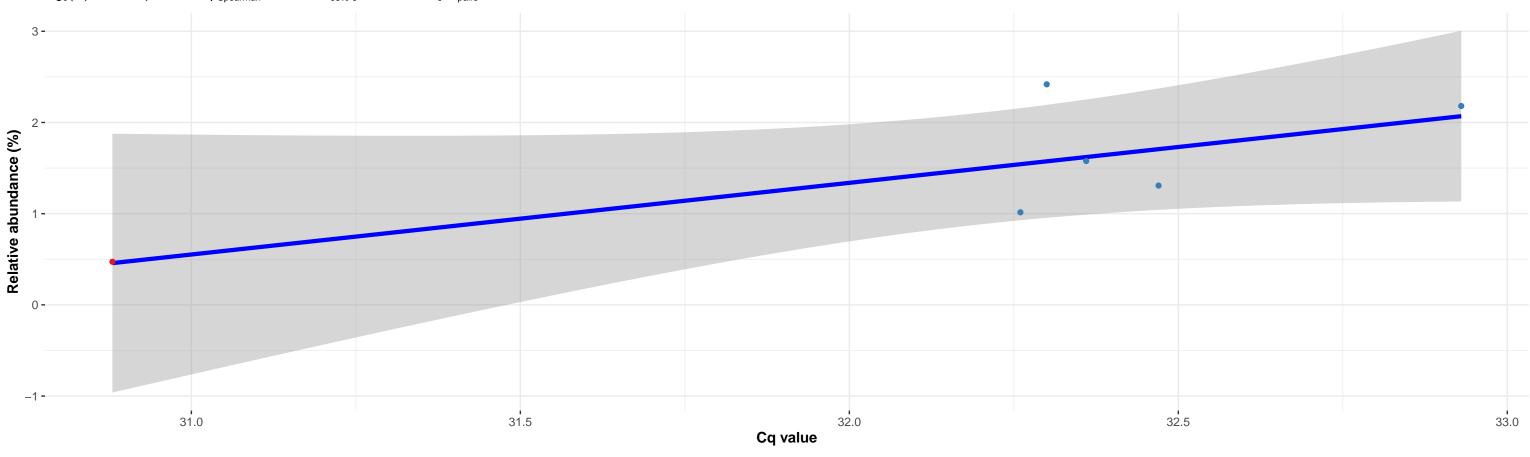
 $log_e(S) = 4.543$ , p = 0.779,  $\widehat{\rho}_{Spearman} = -0.119$ ,  $Cl_{95\%}$  [-0.771, 0.654],  $n_{pairs} = 8$ 



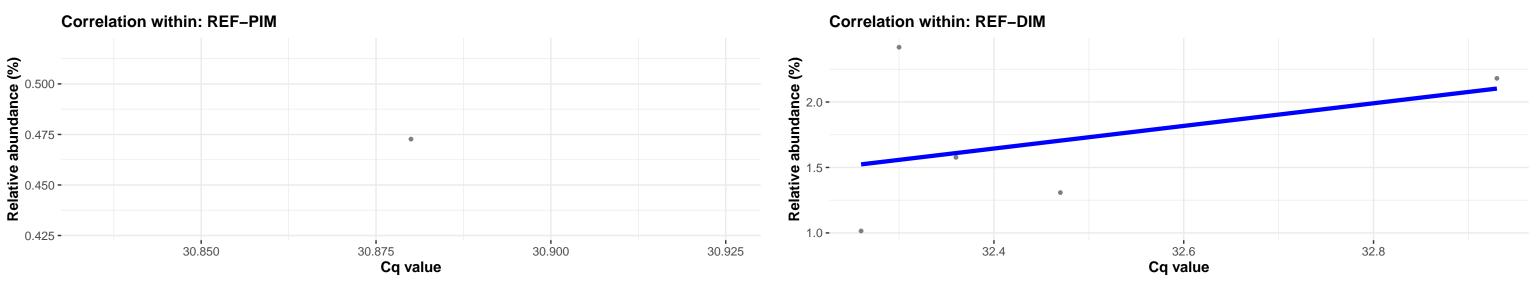
**Correlation within: PCR-blank** 

Relative abundance (%)

 $log_e(S) = 2.639, p = 0.208, \hat{\rho}_{Spearman} = 0.600, Cl_{95\%} [-0.440, 0.953], n_{pairs} = 6$ 





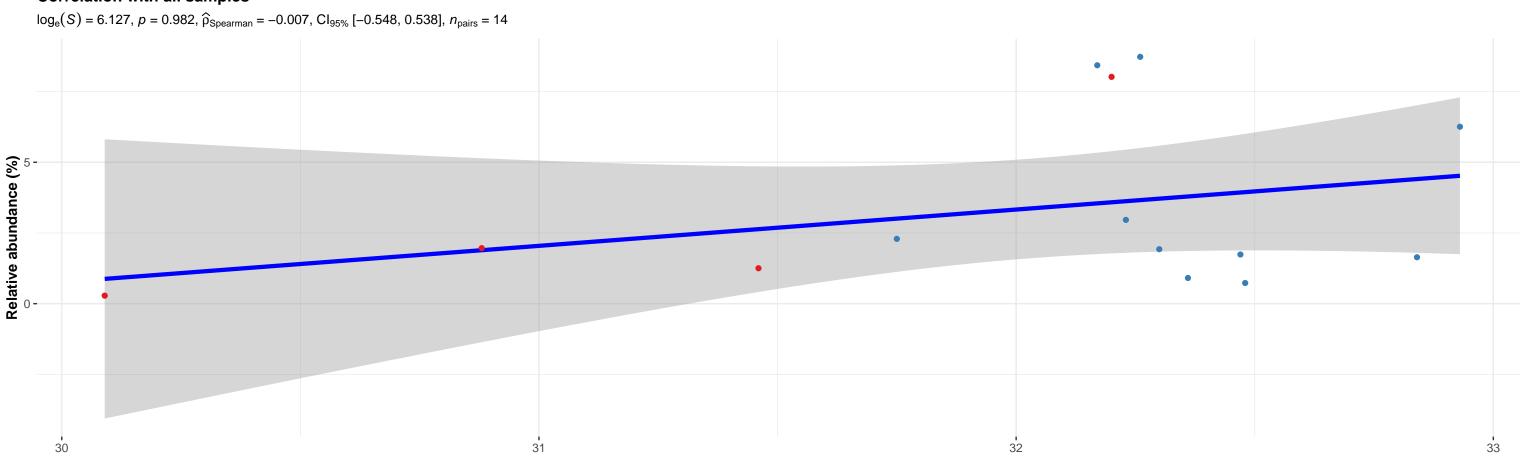


k\_Bacteria; p\_Bacteroidetes; c\_Bacteroidia; o\_Sphingobacteriales; f\_env.OPS 17; g\_uncultured bacterium; s\_uncultured bacterium

Correlation with all samples

Relative abundance (%)

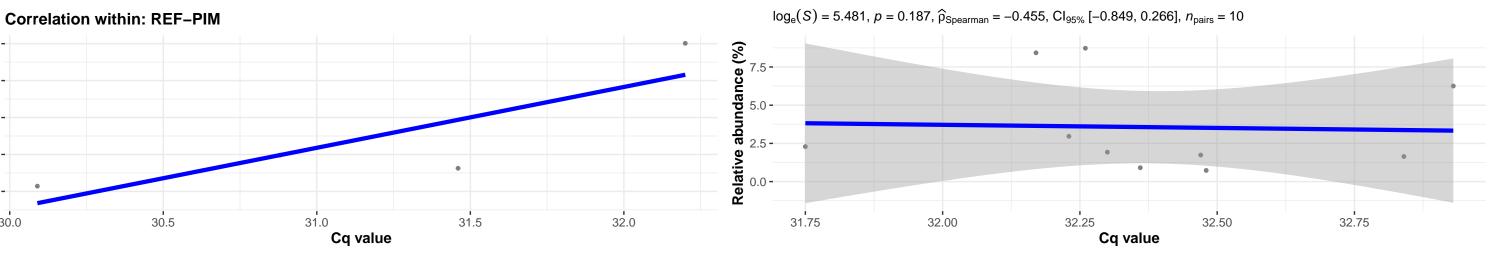
Cq value





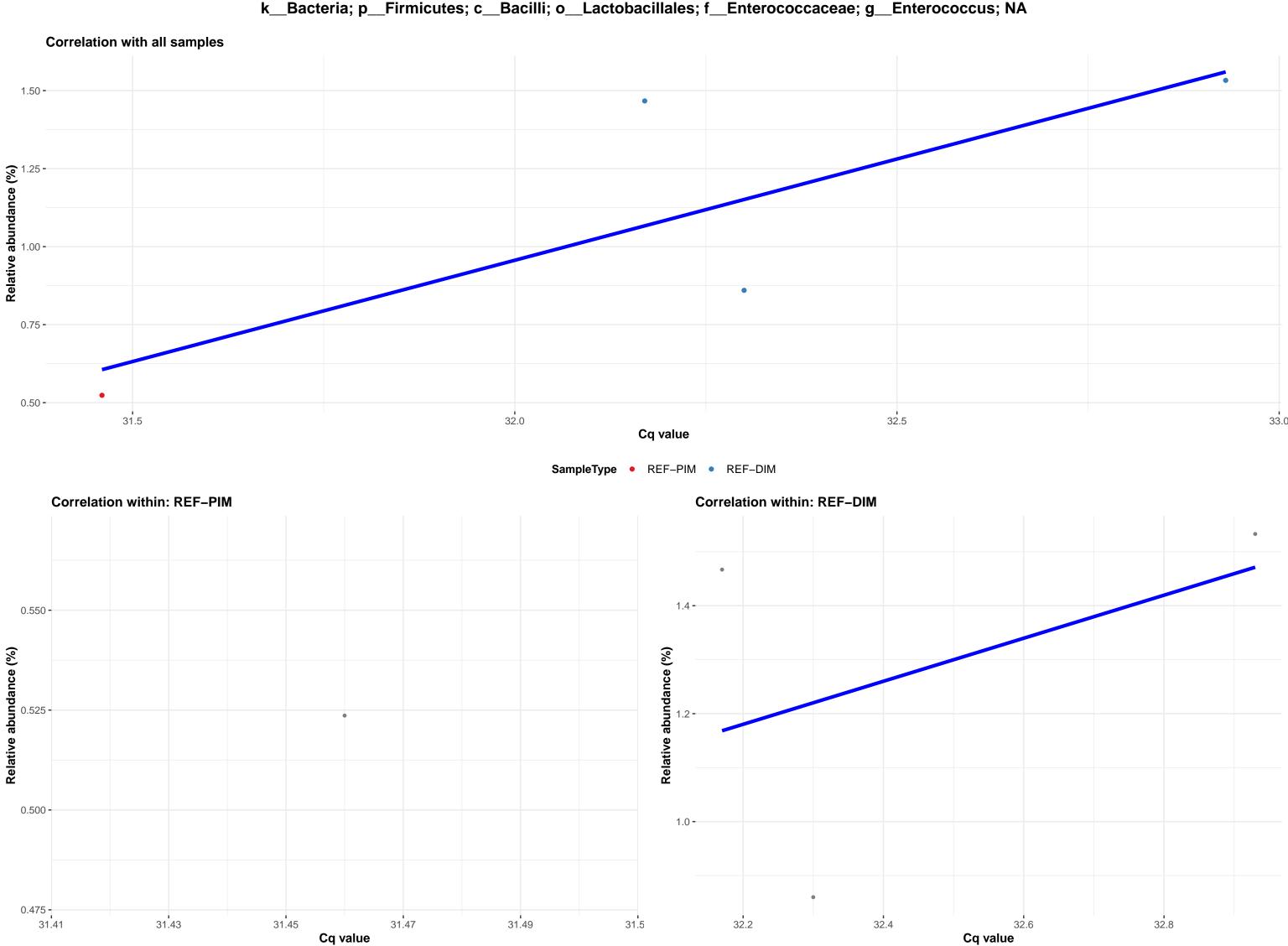
Cq value

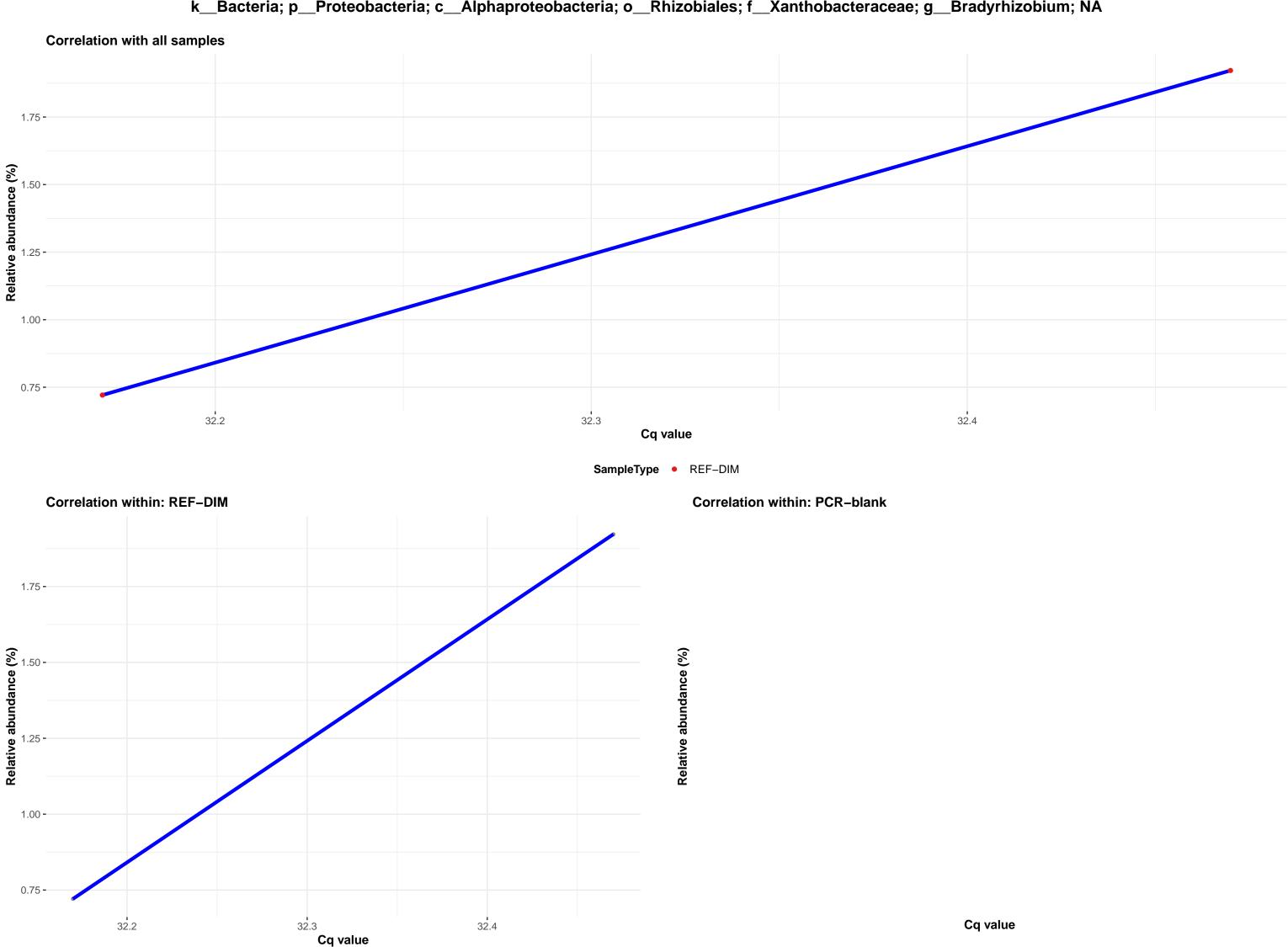
#### **Correlation within: REF-DIM**

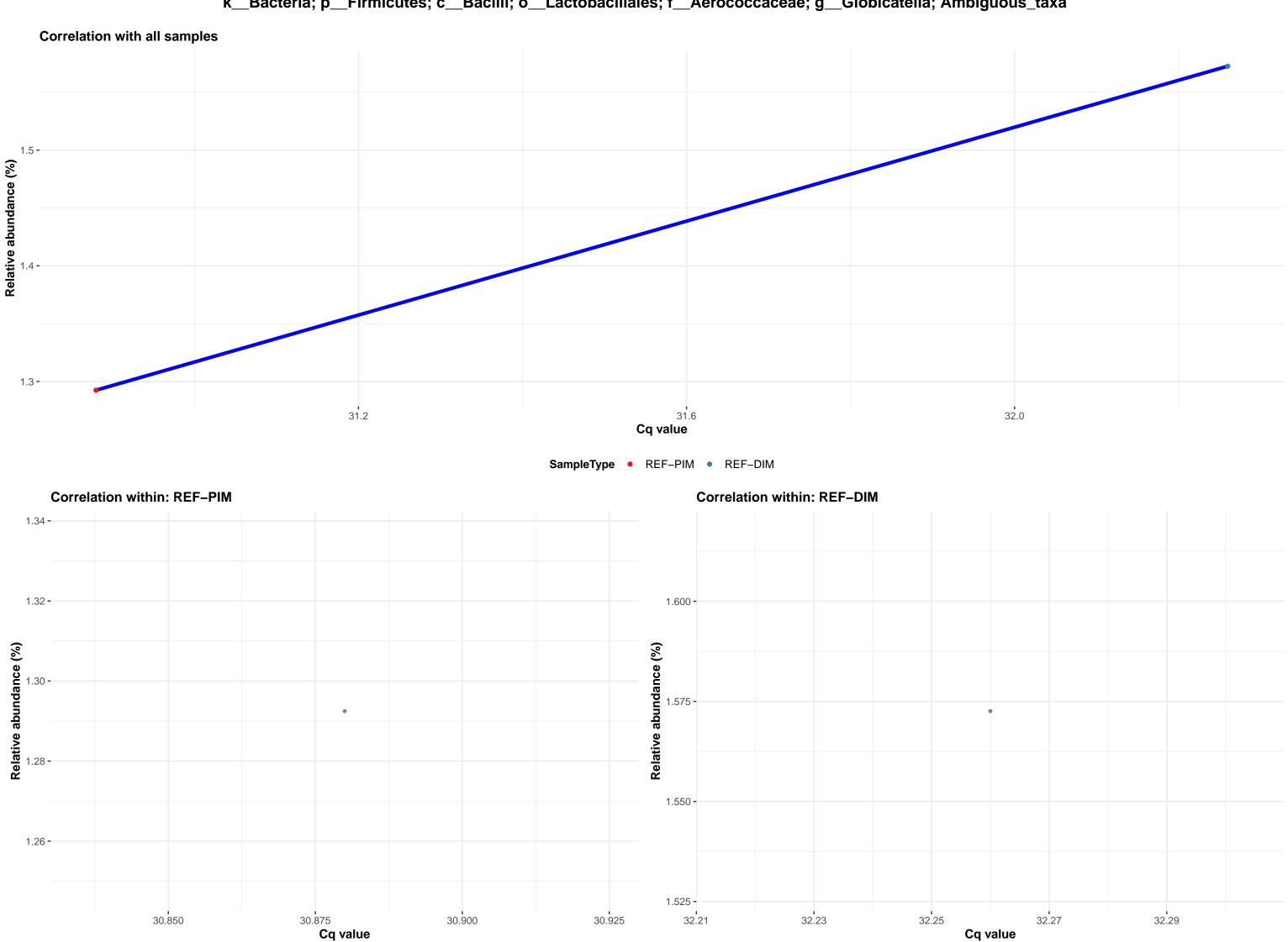


**Correlation within: PCR-blank** 

Relative abundance (%)

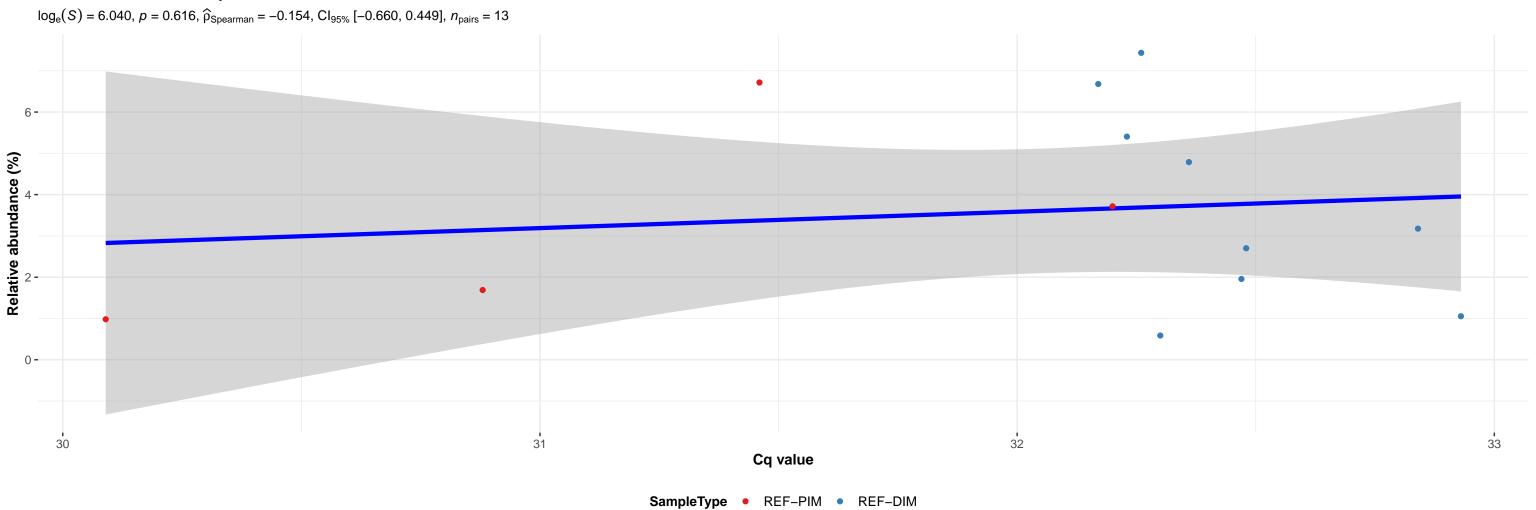




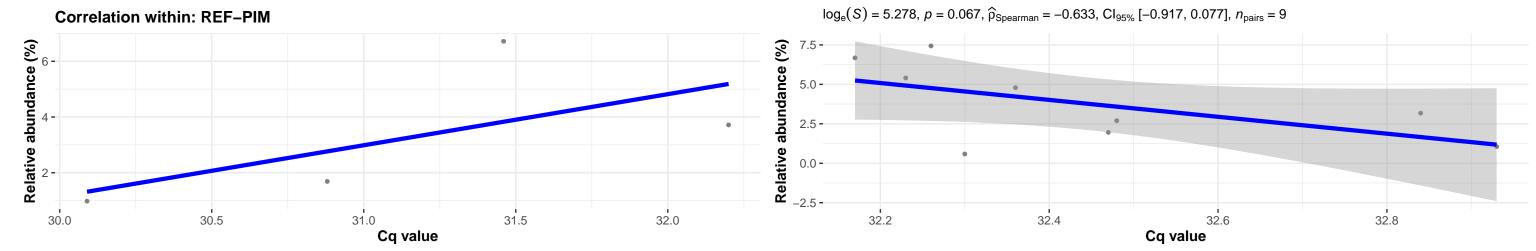


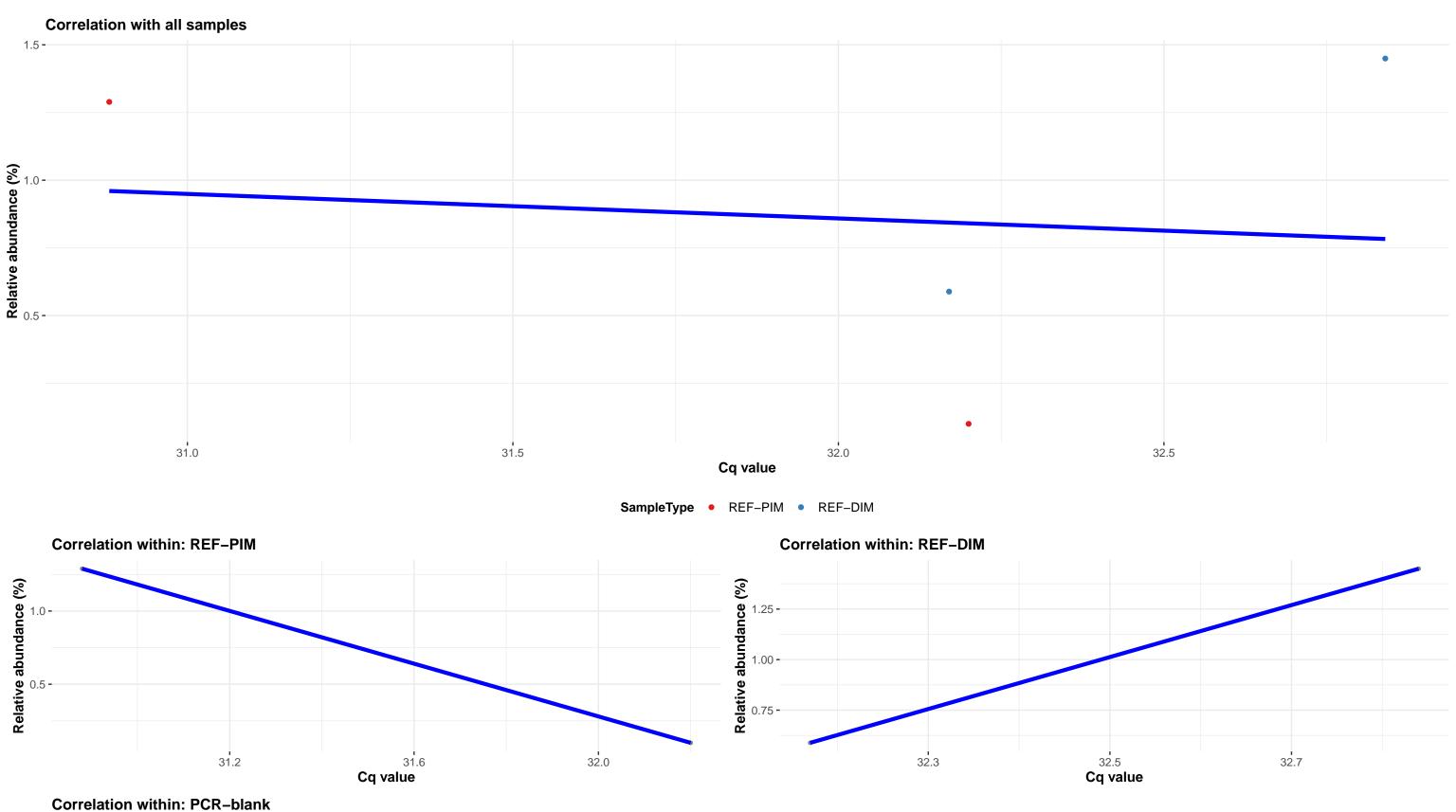
k\_Bacteria; p\_Proteobacteria; c\_Gammaproteobacteria; o\_Betaproteobacteriales; f\_Burkholderiaceae; g\_Ralstonia; s\_uncultured Ralstonia sp.





## Correlation within: REF-DIM

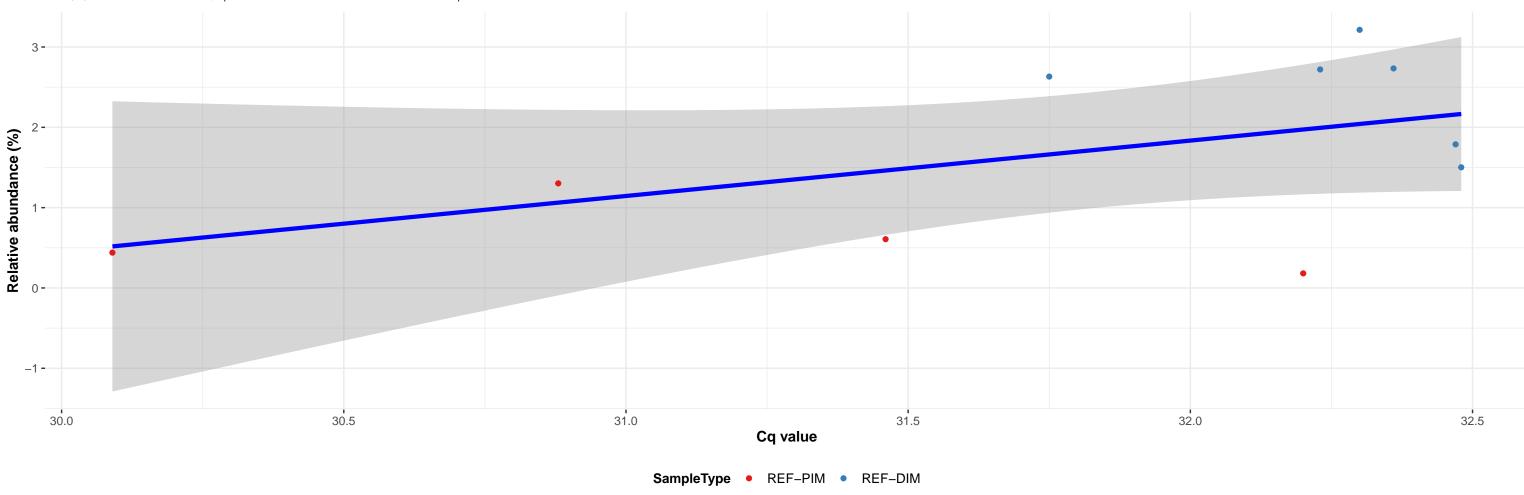


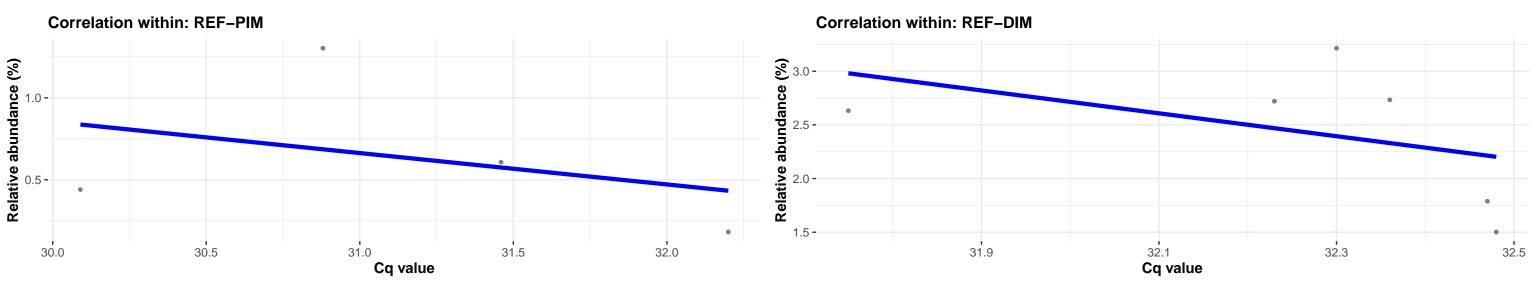


k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Gammaproteobacteria; o\_\_Betaproteobacteriales; f\_\_Burkholderiaceae; g\_\_Ralstonia; NA

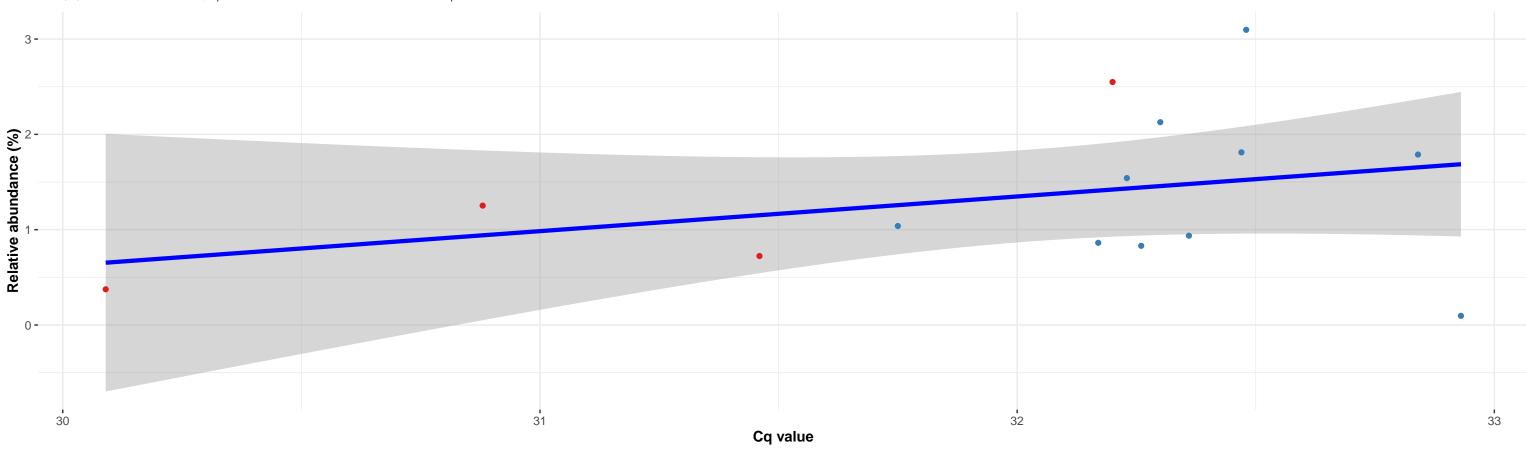


 $log_e(S) = 4.357$ , p = 0.117,  $\hat{\rho}_{Spearman} = 0.527$ ,  $Cl_{95\%}$  [-0.175, 0.874],  $n_{pairs} = 10$ 



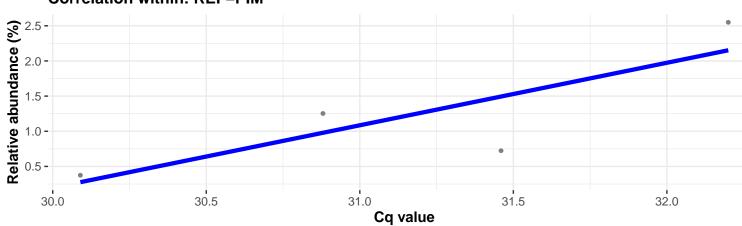


 $\log_{e}(S) = 5.775, p = 0.311, \hat{\rho}_{Spearman} = 0.292, Cl_{95\%} [-0.298, 0.721], n_{pairs} = 14$ 



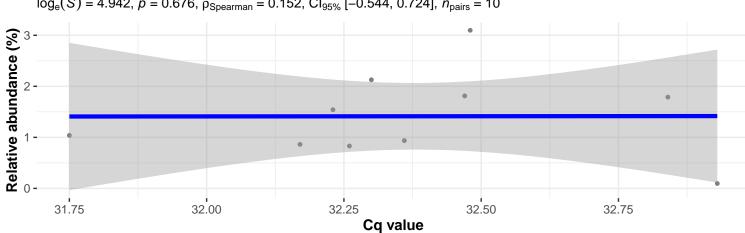


#### **Correlation within: REF-PIM**



# $\log_{e}(S) = 4.942, p = 0.676, \widehat{\rho}_{Spearman} = 0.152, Cl_{95\%}$ [-0.544, 0.724], $n_{pairs} = 10$

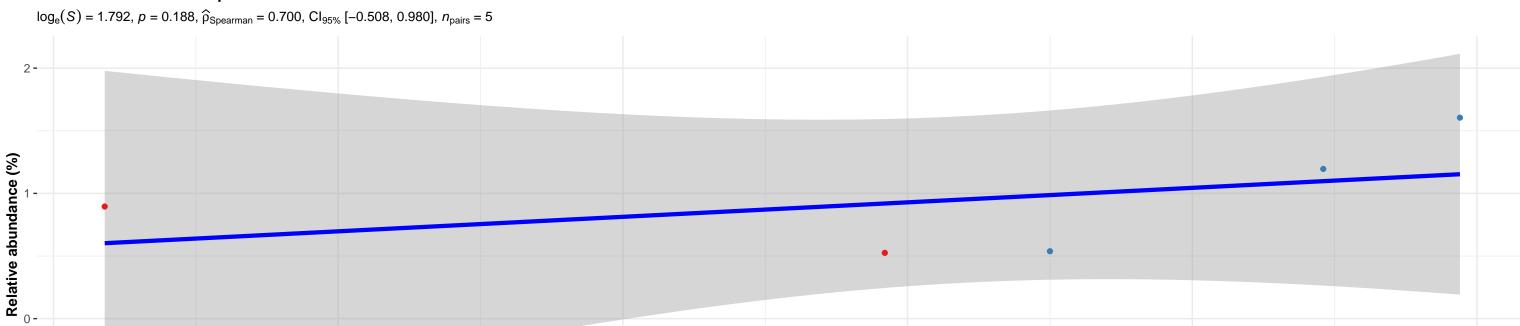
**Correlation within: REF-DIM** 





30.0

Relative abundance (%)





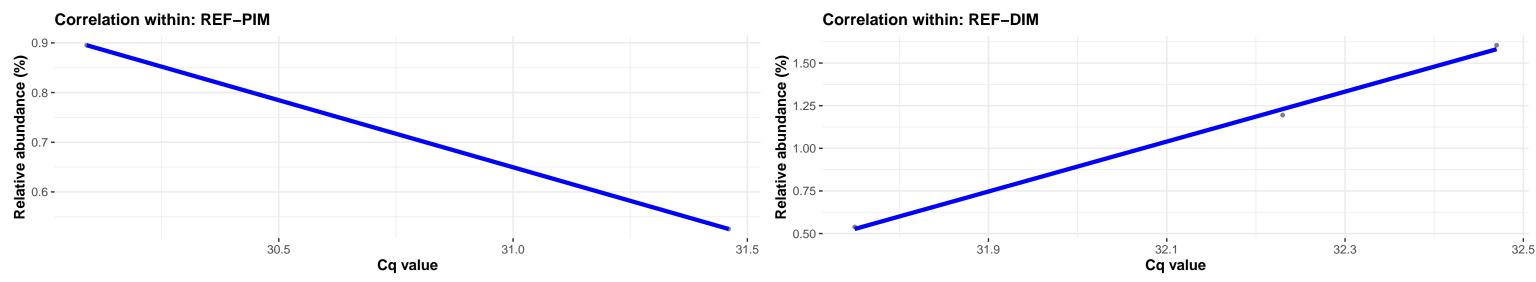
Cq value

31.5

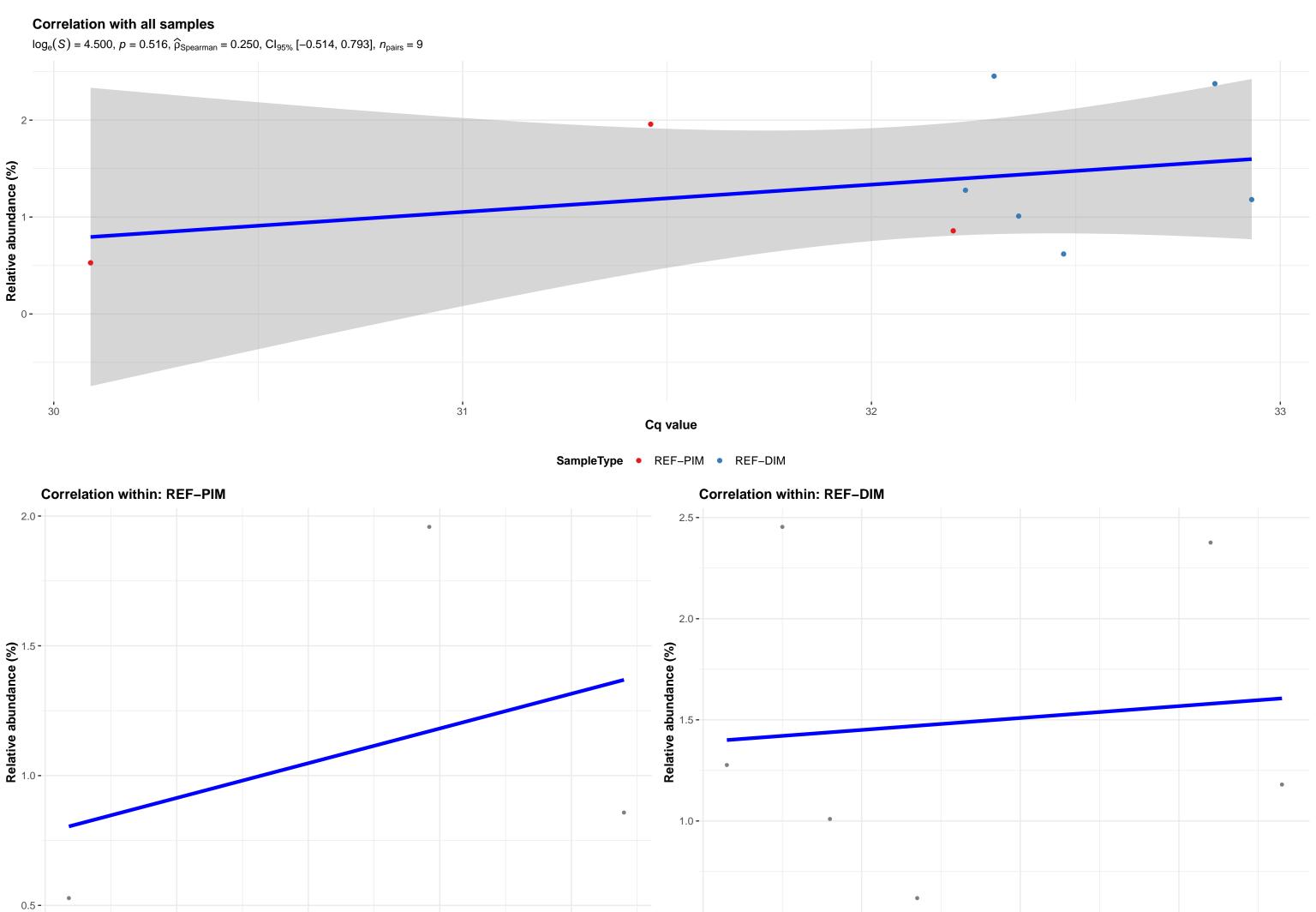
32.5

32.0

31.0



Correlation within: PCR-blank



32.0

32.2

32.4

Cq value

32.8

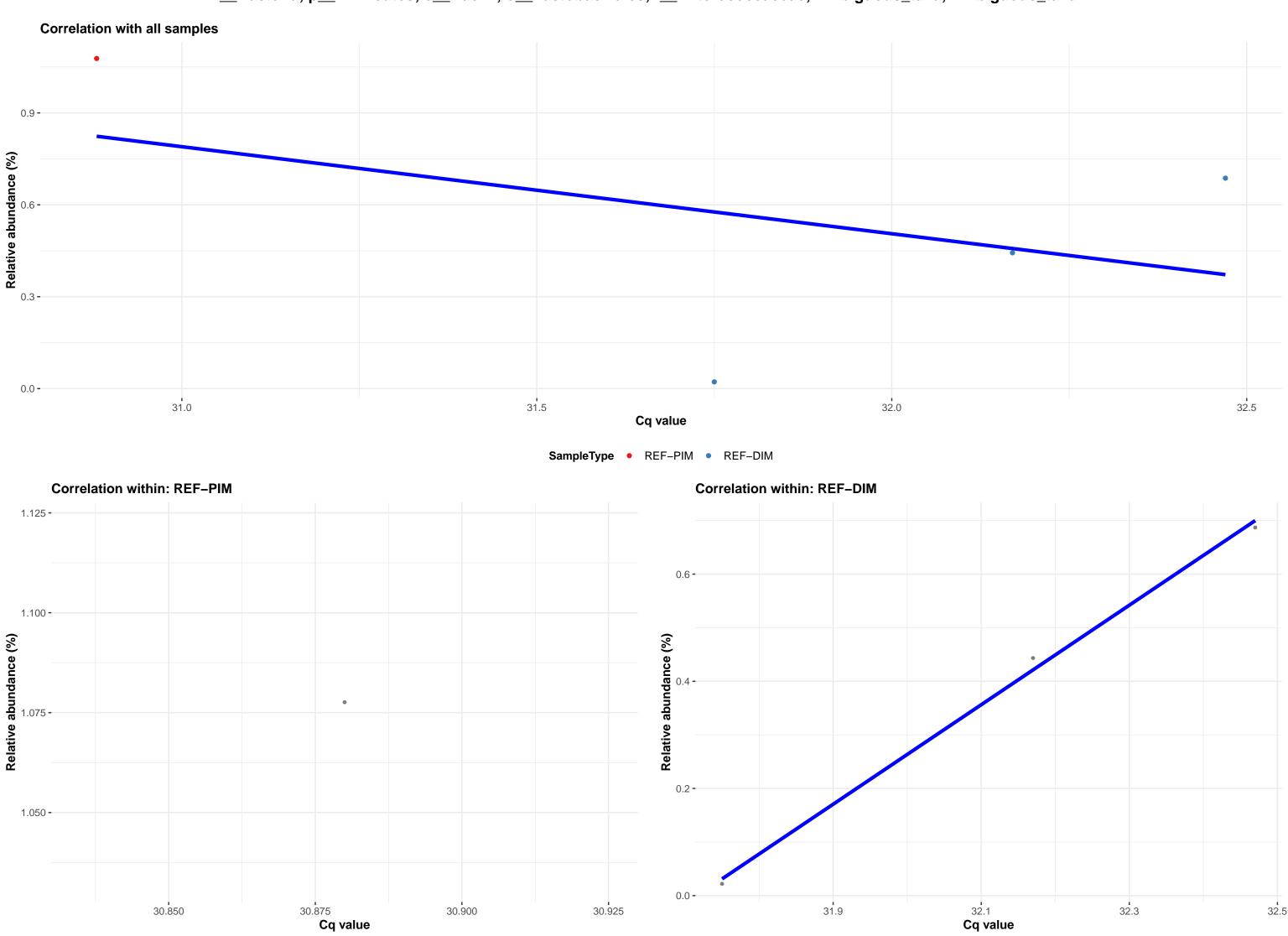
31.5

30.5

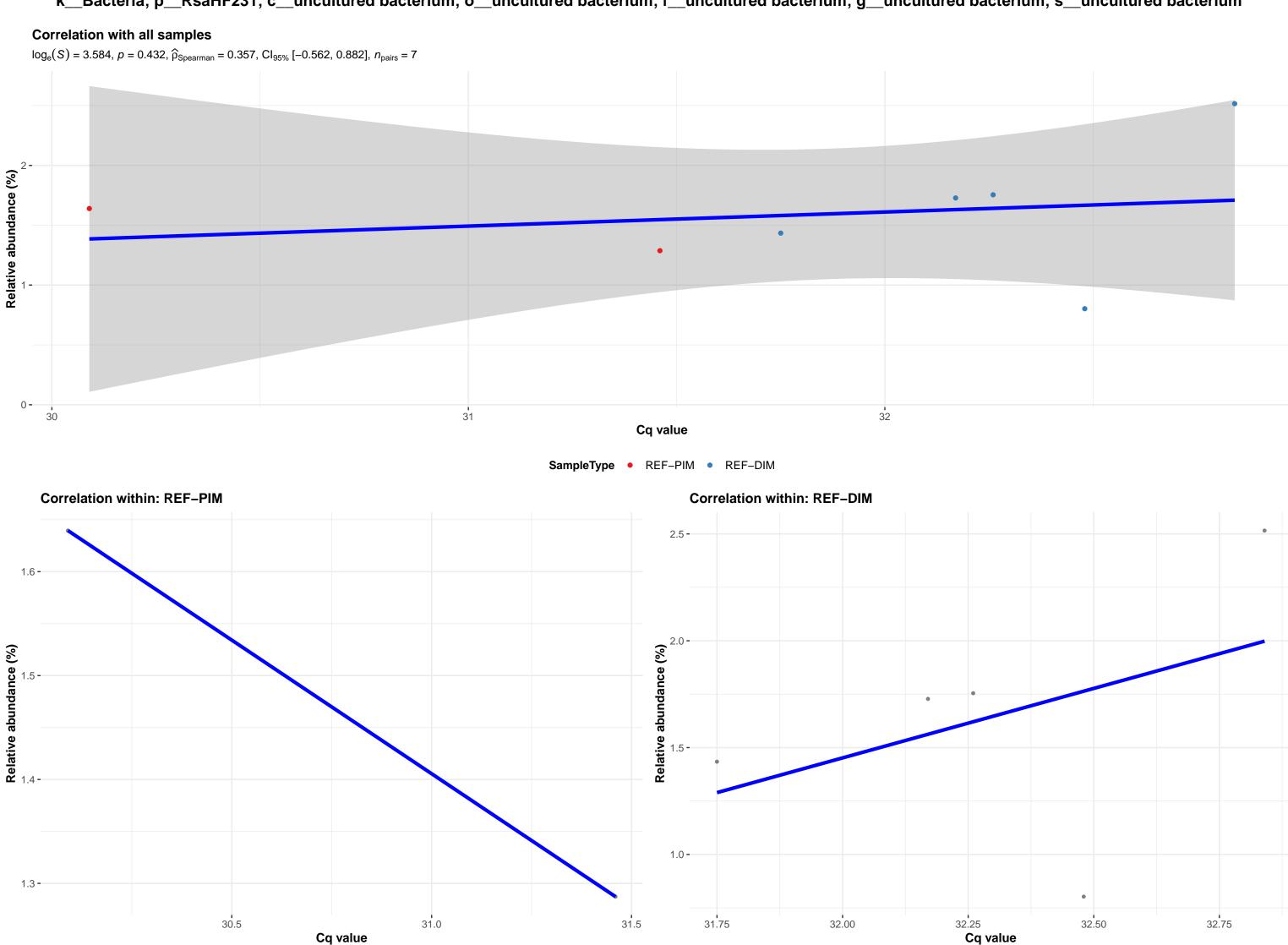
30.0

31.0

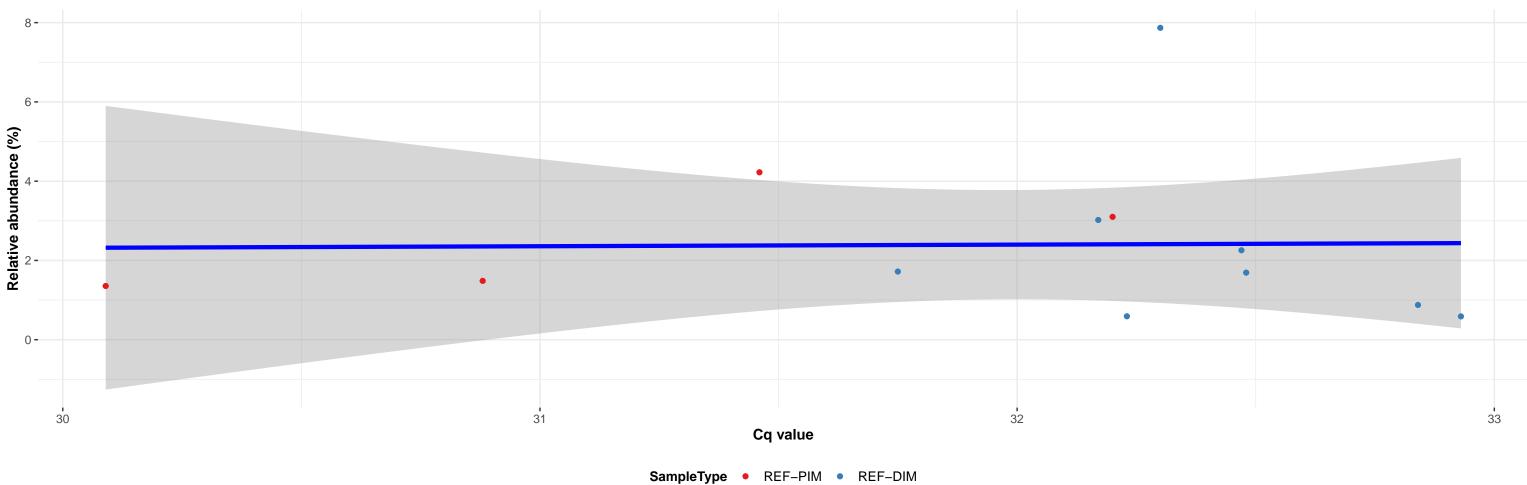
Cq value



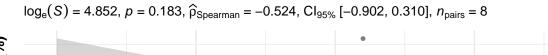
k\_Bacteria; p\_RsaHF231; c\_uncultured bacterium; o\_uncultured bacterium; f\_uncultured bacterium; g\_uncultured bacterium; s\_uncultured bacterium

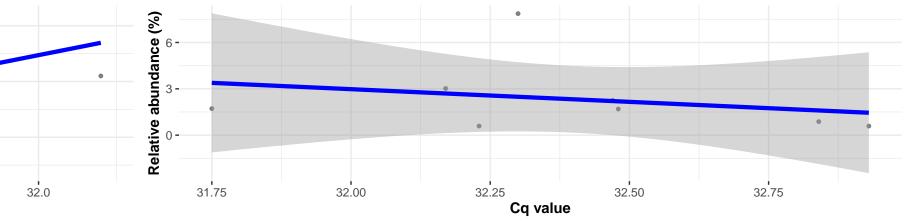


 $\log_{e}(S) = 5.903, p = 0.379, \hat{\rho}_{Spearman} = -0.280, Cl_{95\%} [-0.744, 0.367], n_{pairs} = 12$ 



# **Correlation within: REF-DIM**





Correlation within: PCR-blank

30.5

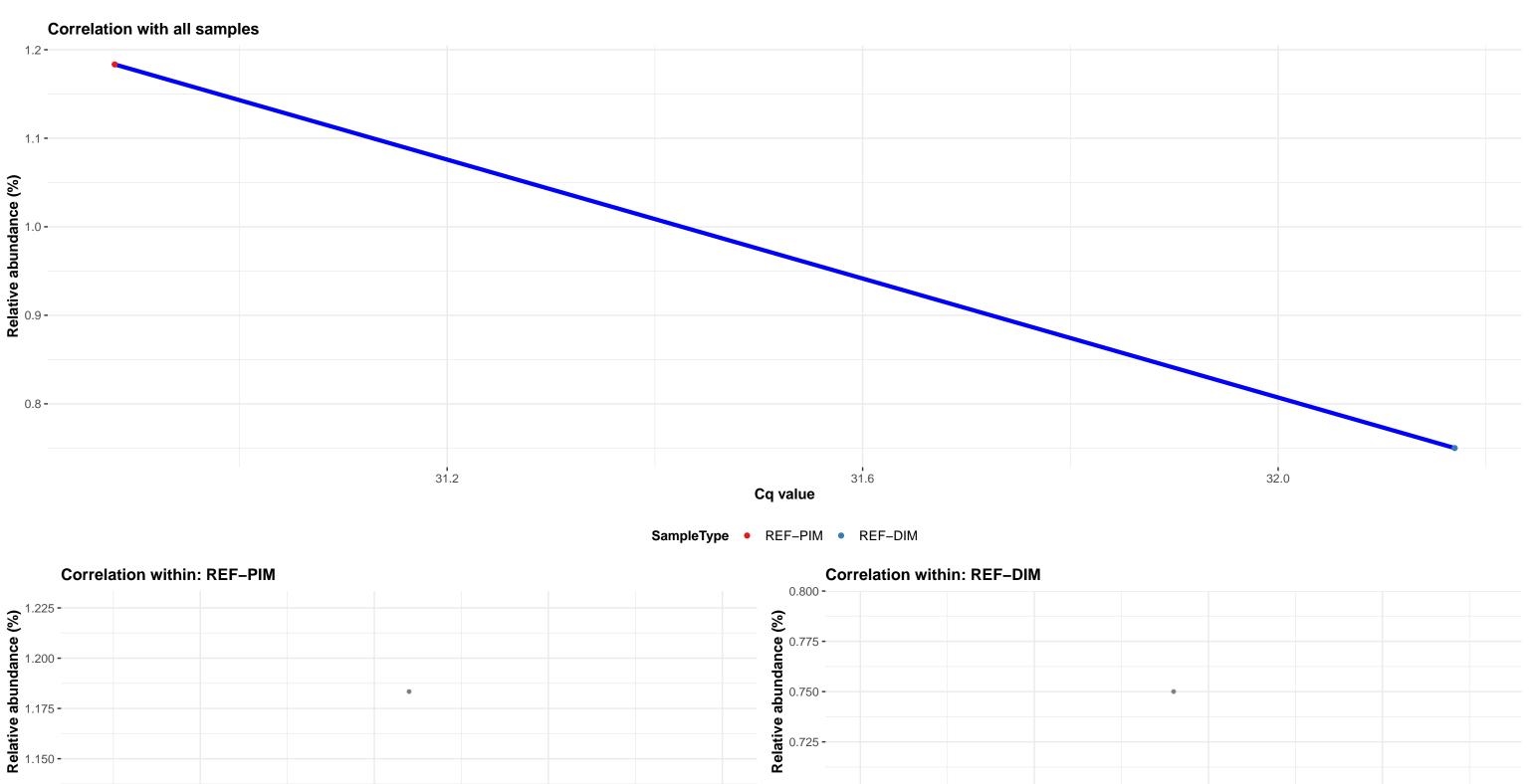
**Correlation within: REF-PIM** 

Relative abundance (%)

30.0

31.0

Cq value



30.925

32.125

32.150

32.175

Cq value

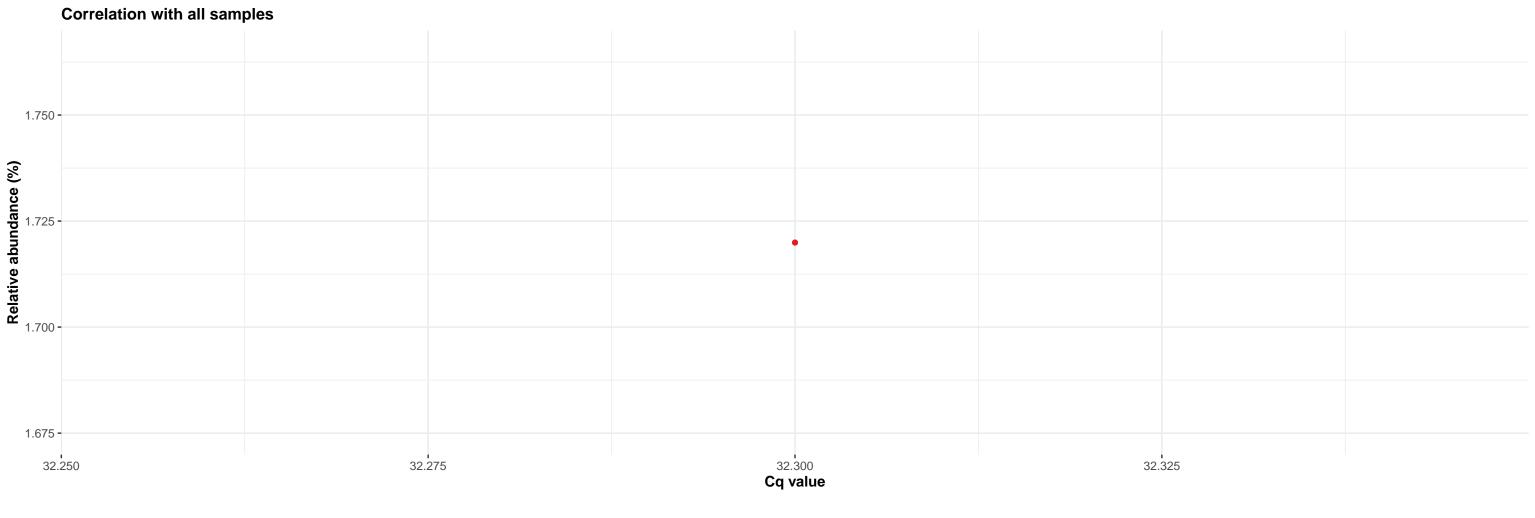
32.200

Correlation within: PCR-blank

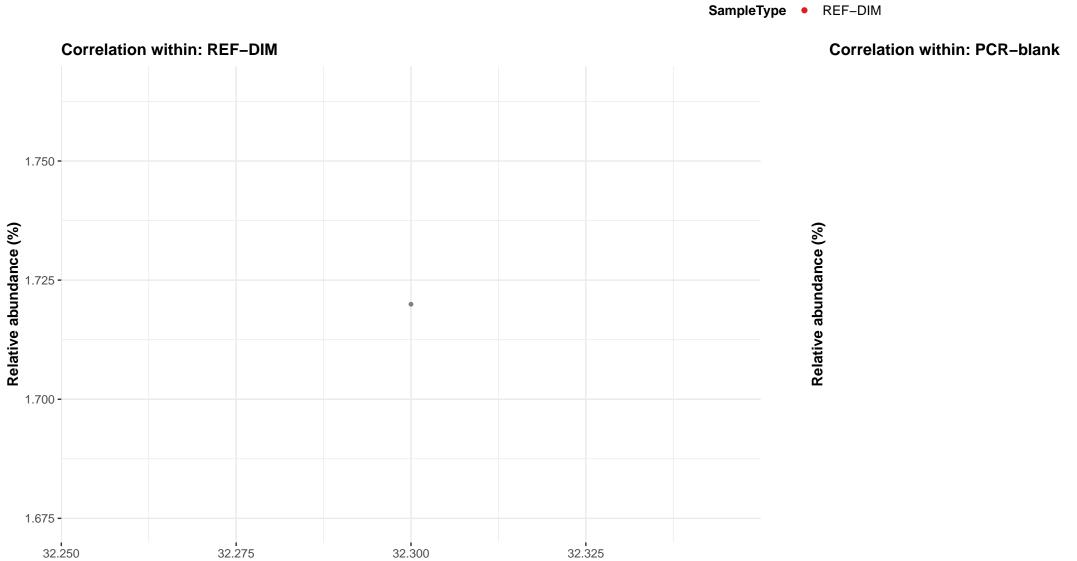
30.850

30.875 **Cq value** 

Cq value

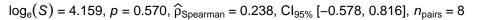


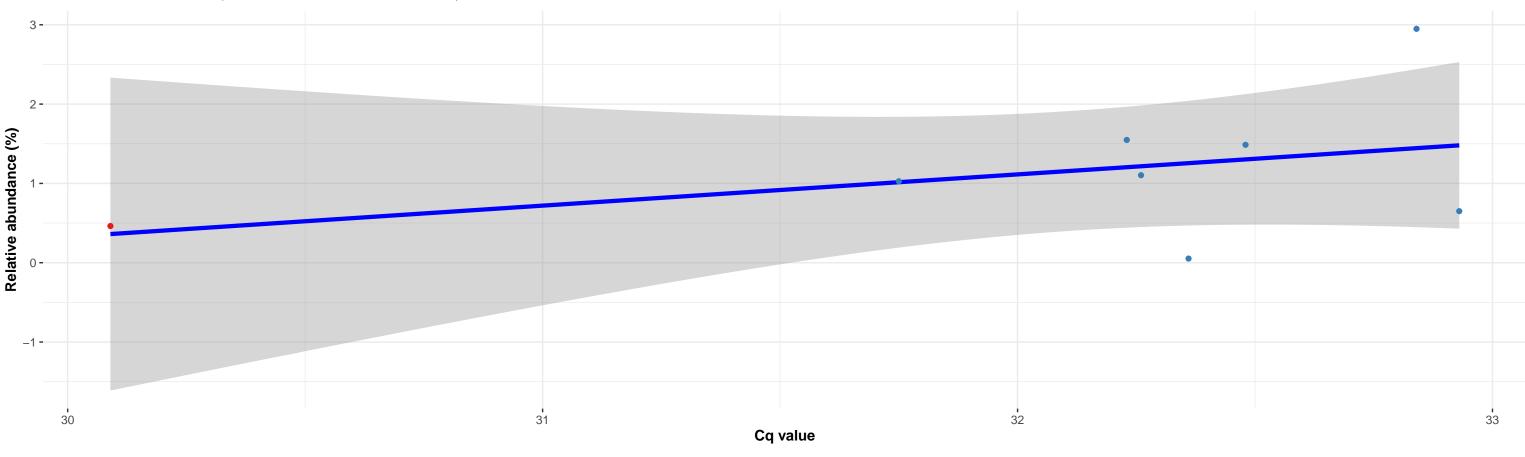
Cq value



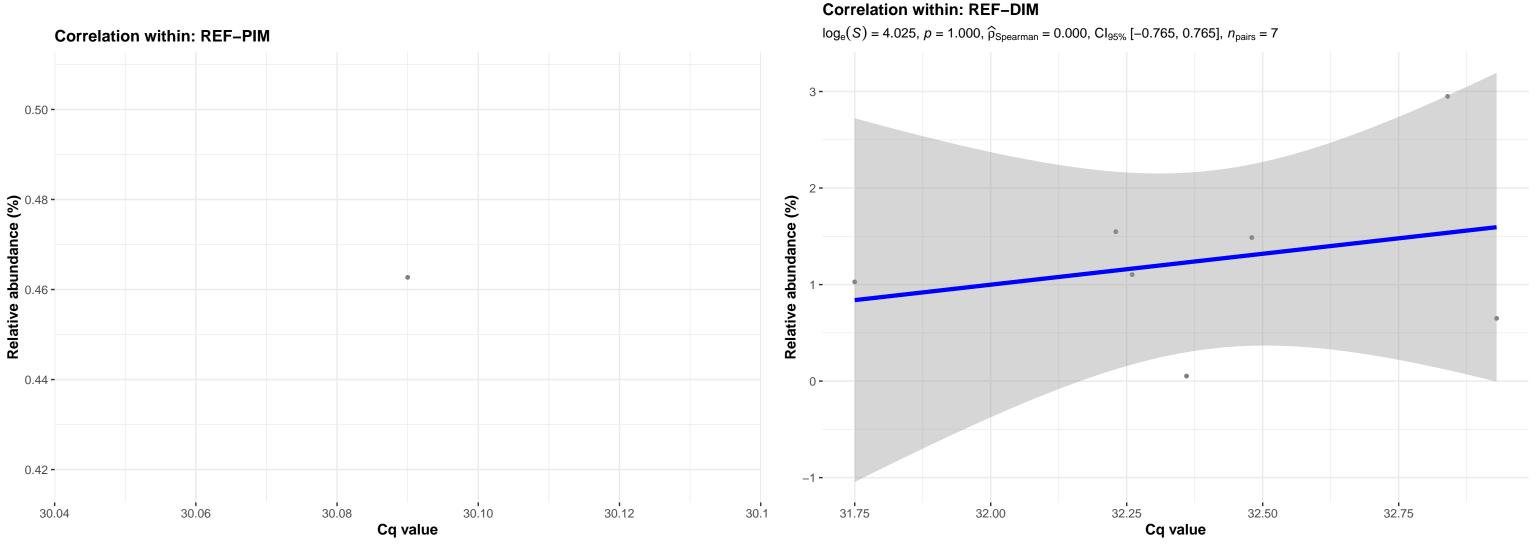
Cq value

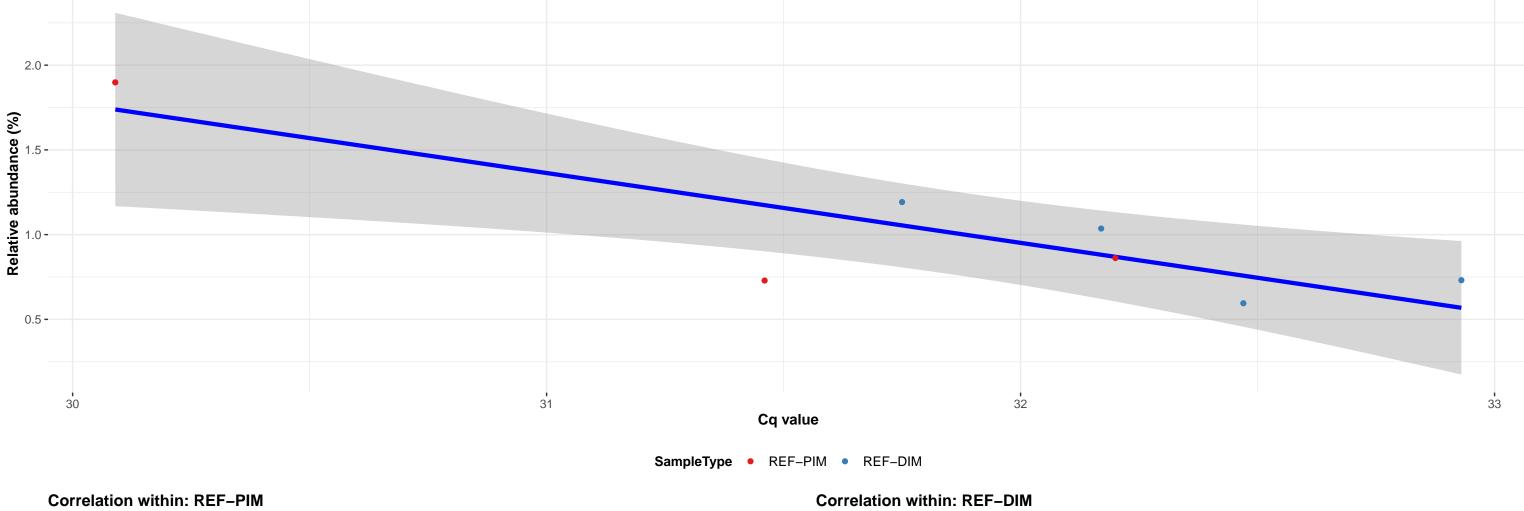


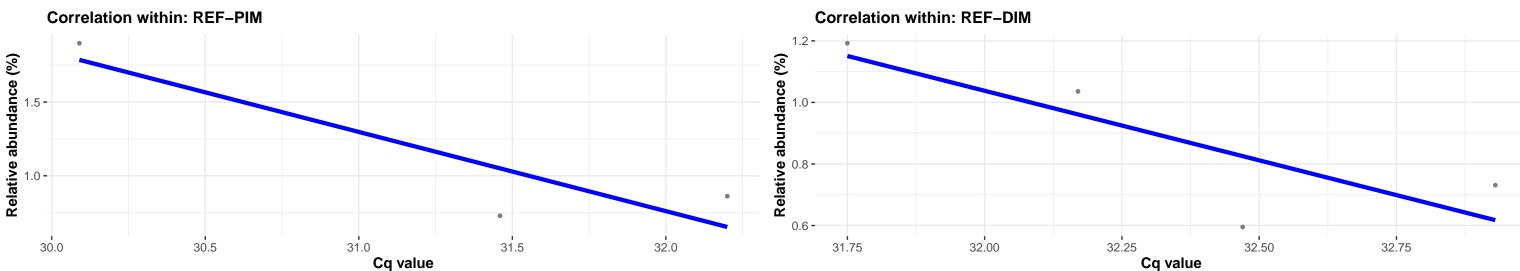




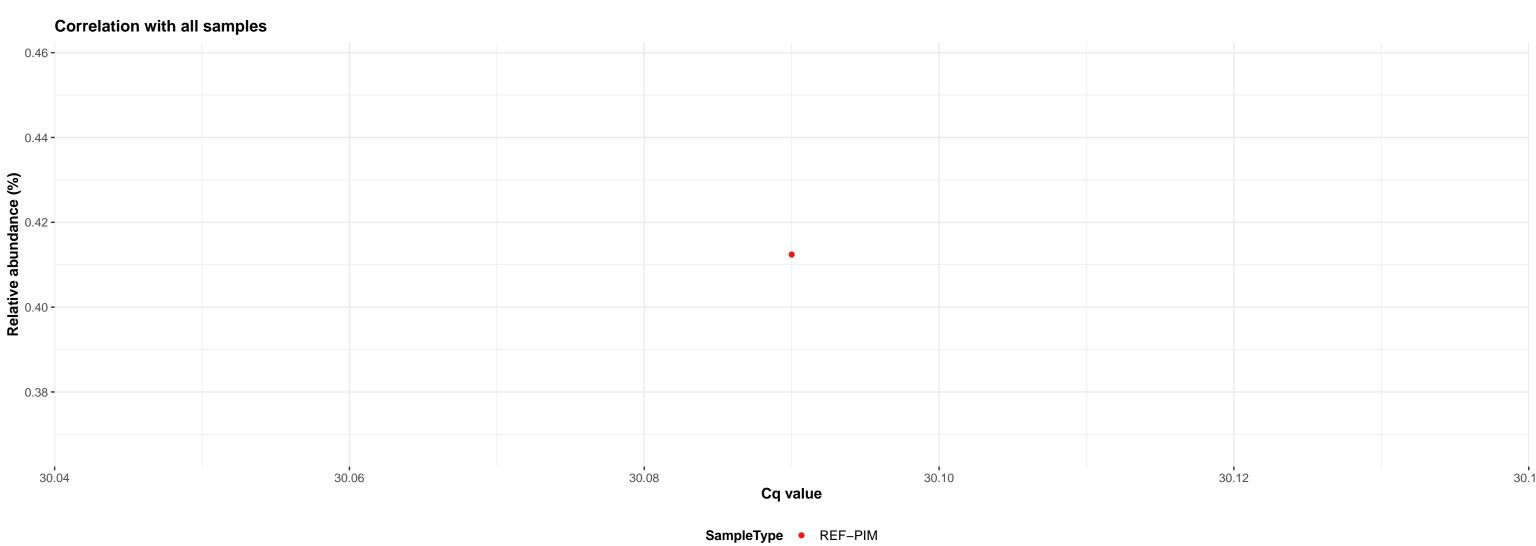
SampleType ● REF-PIM ● REF-DIM

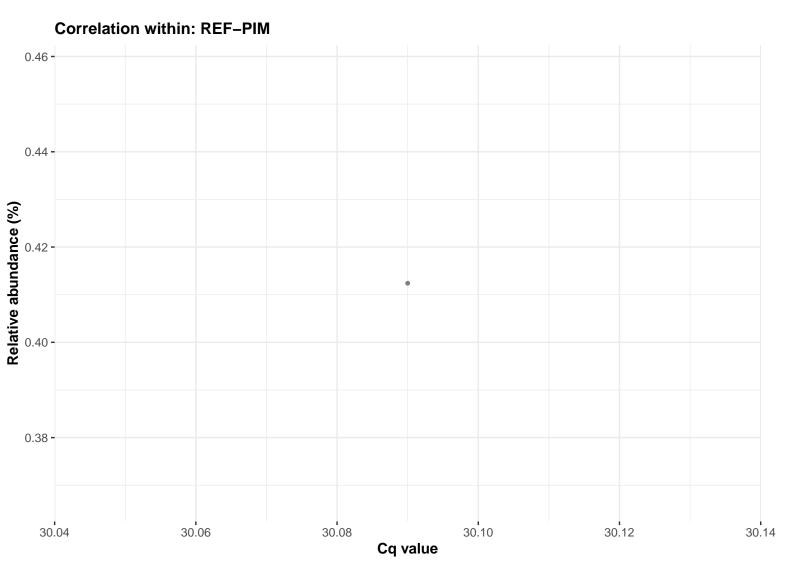






k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Enterococcaceae; g\_\_Enterococcus; s\_\_Enterococcus cecorum





k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Enterococcaceae; g\_\_Enterococcus; s\_\_Enterococcus faecium

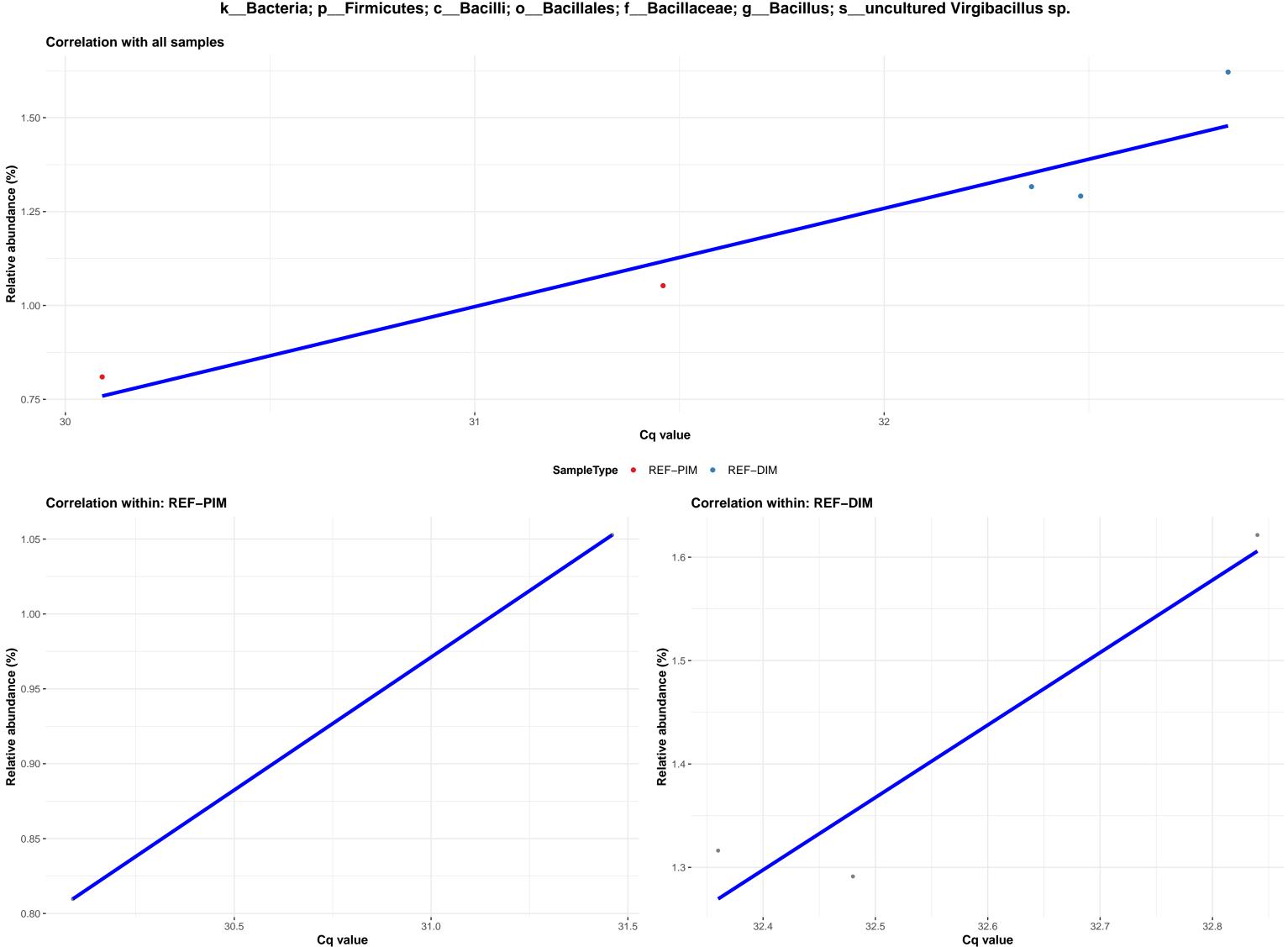
Correlation with all samples

Relative abundance (%)

Cq value

Correlation within: PCR-blank

Relative abundance (%)



Cq value

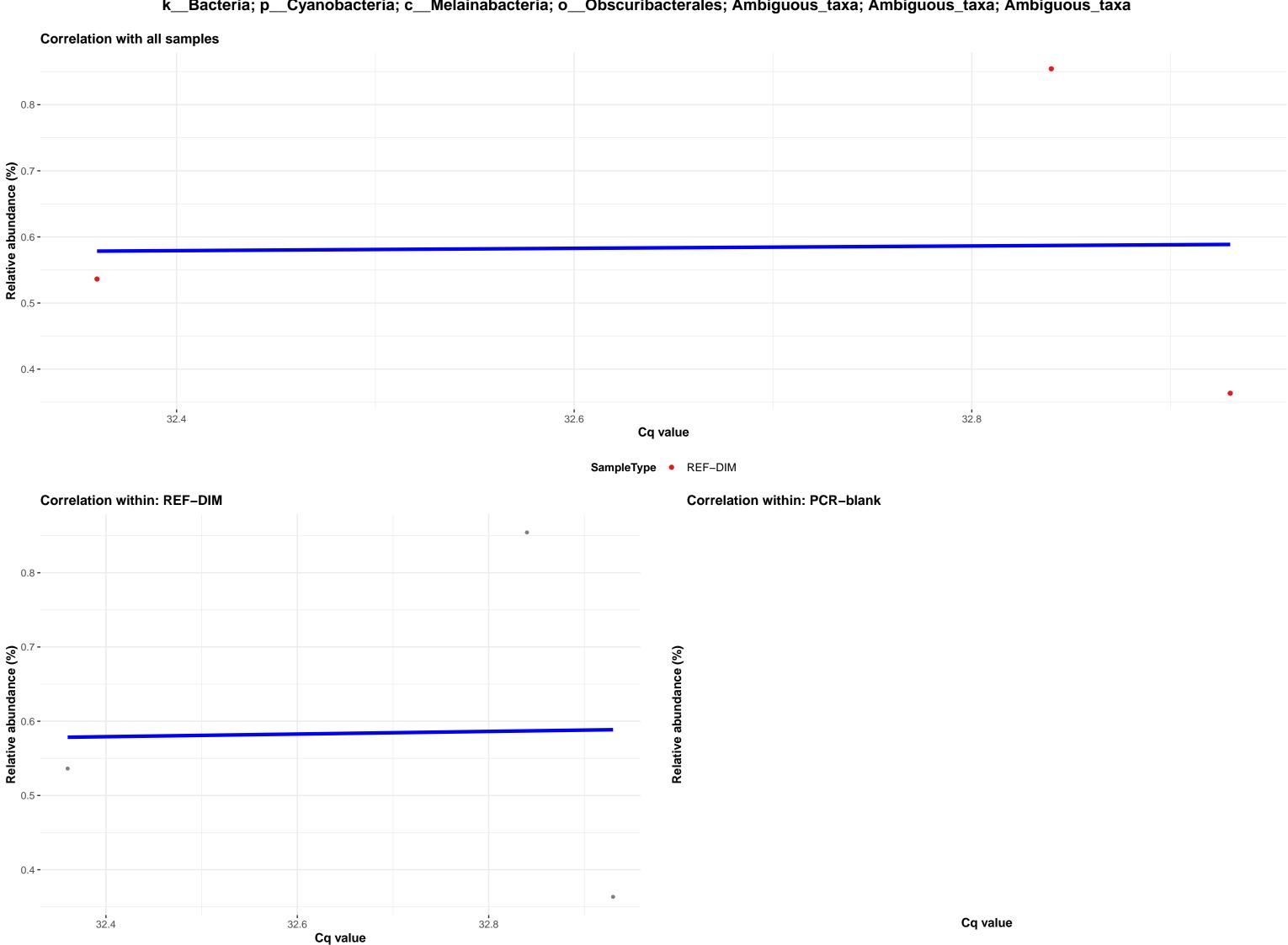
31.3

31.2

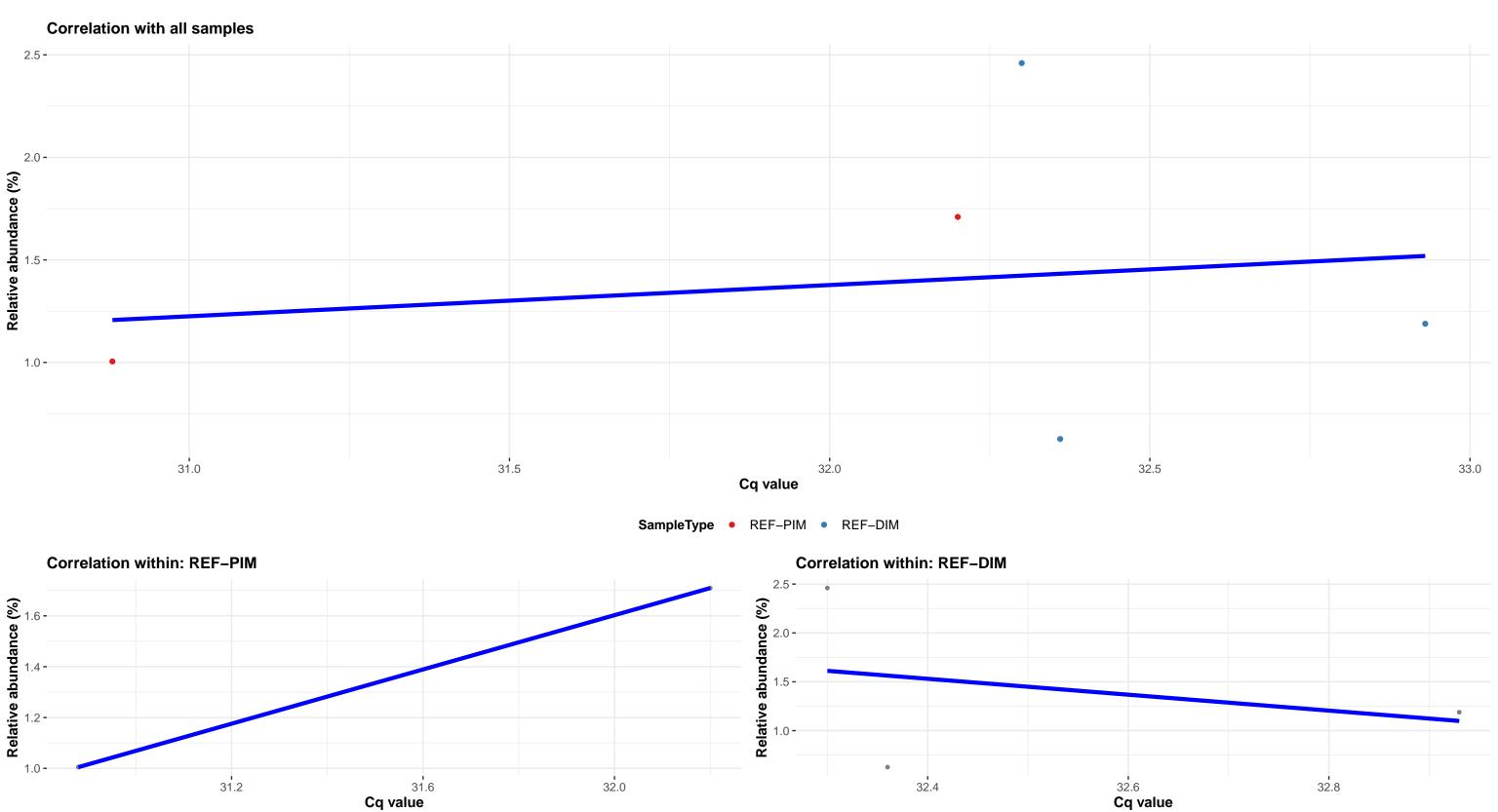
Cq value

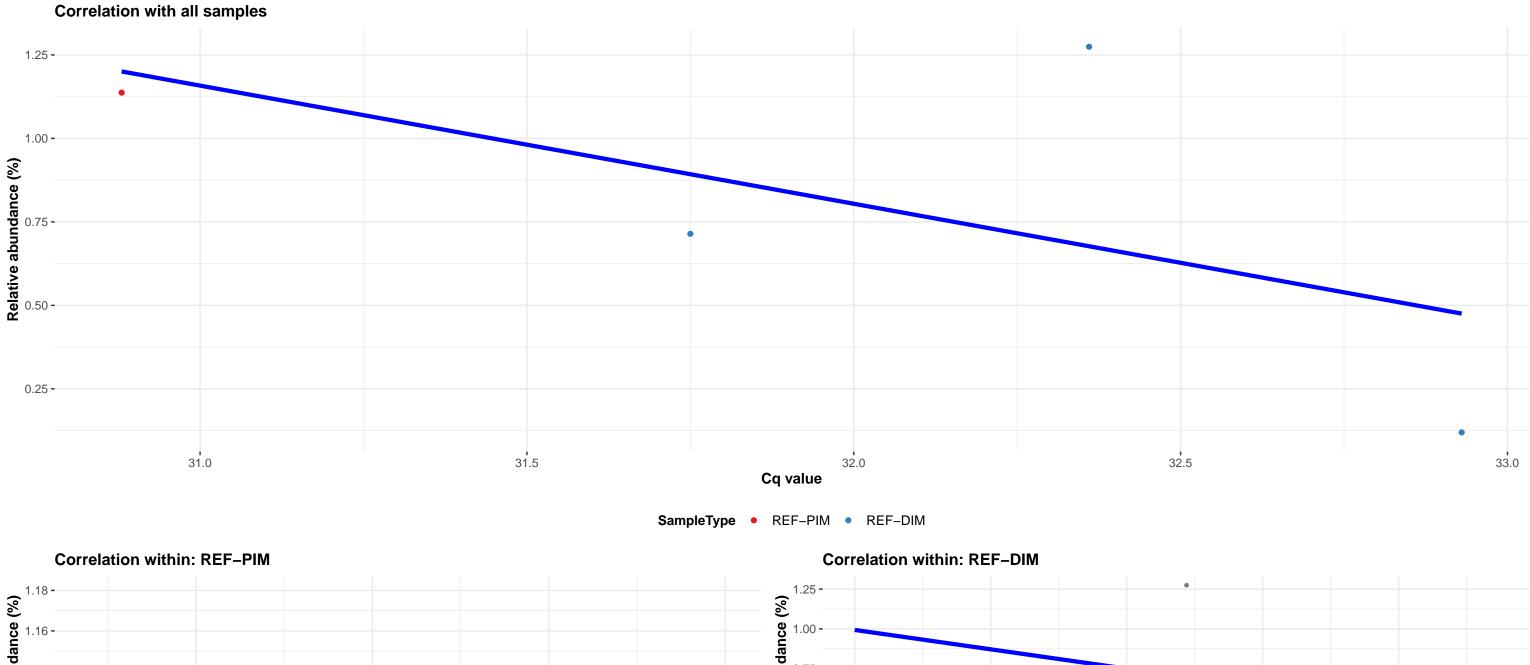
30.9

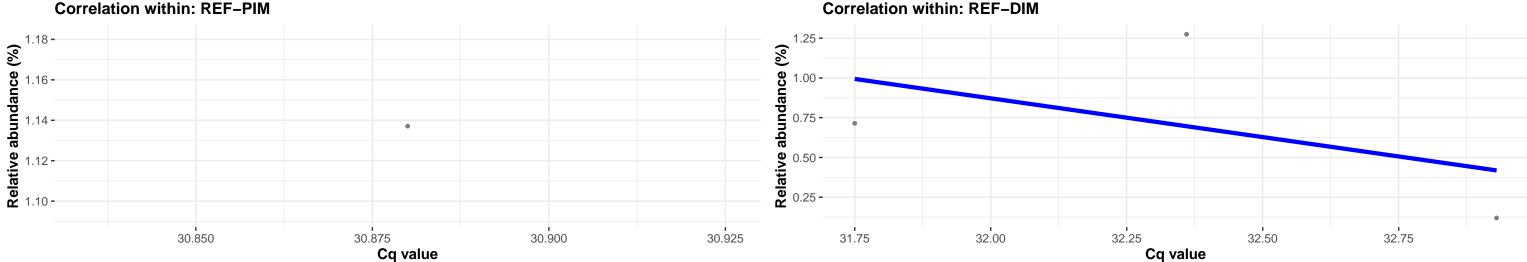
31.0

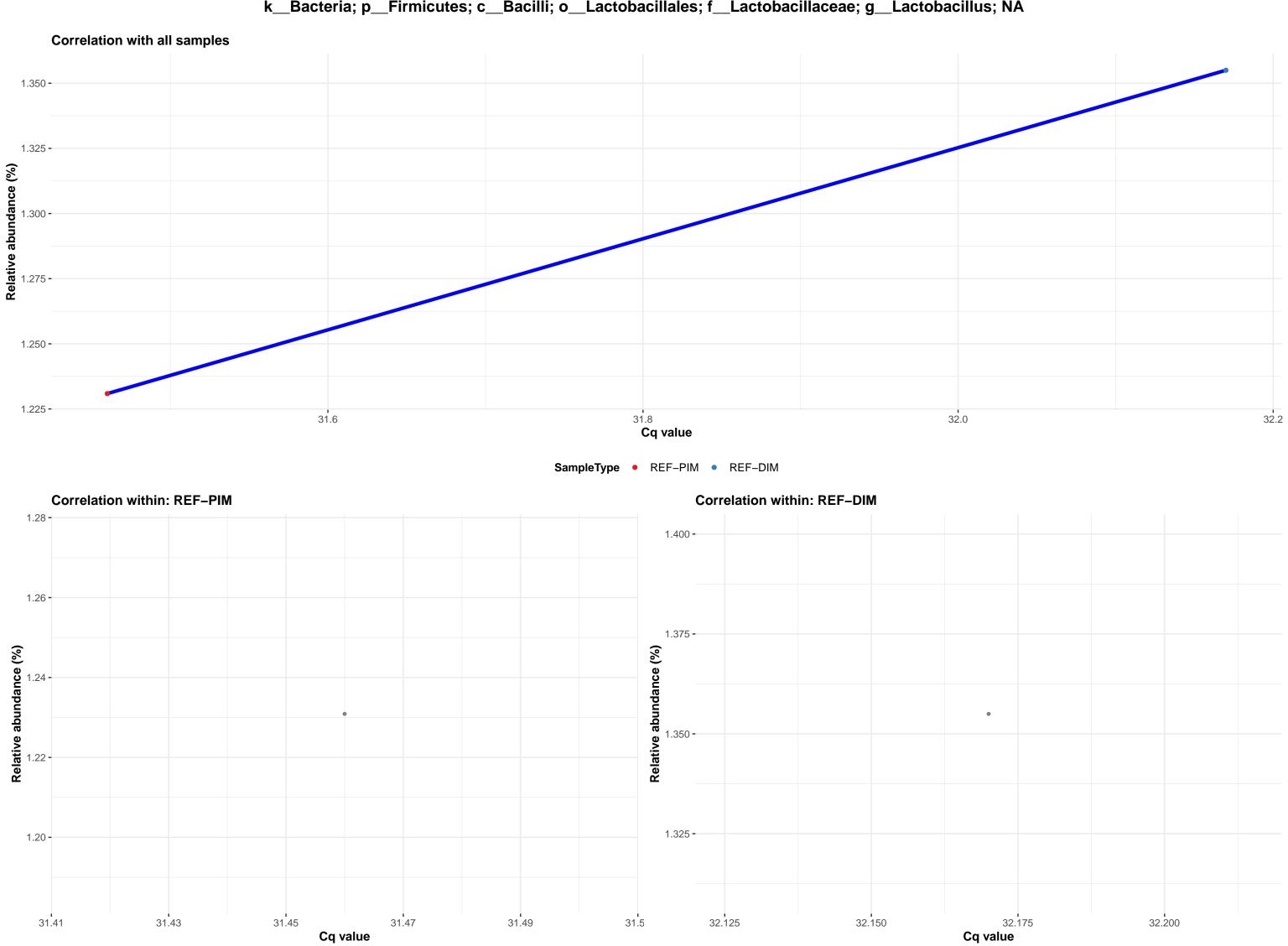


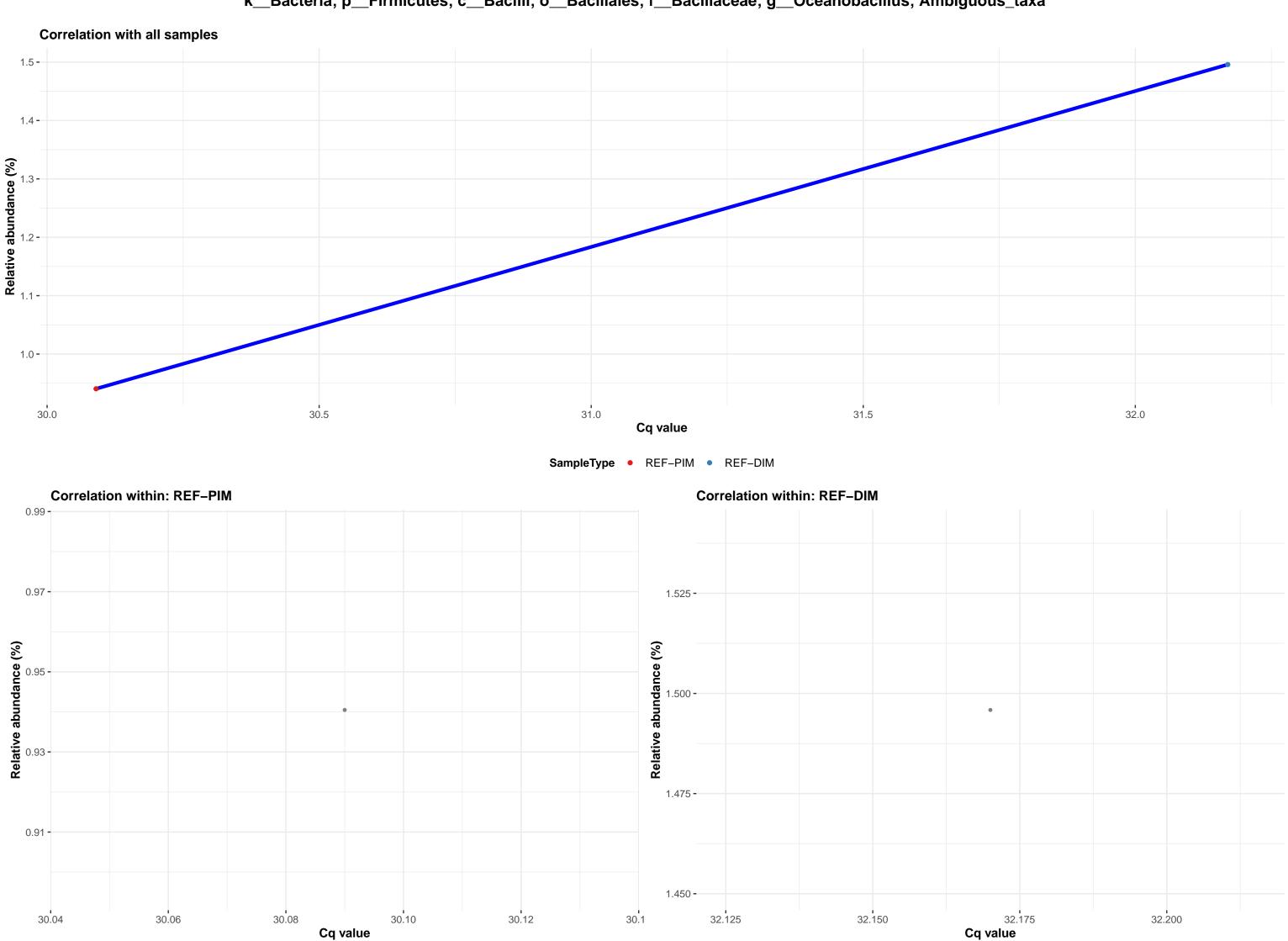
k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Micrococcales; f\_\_Microbacteriaceae; g\_\_Microbacterium; Ambiguous\_taxa

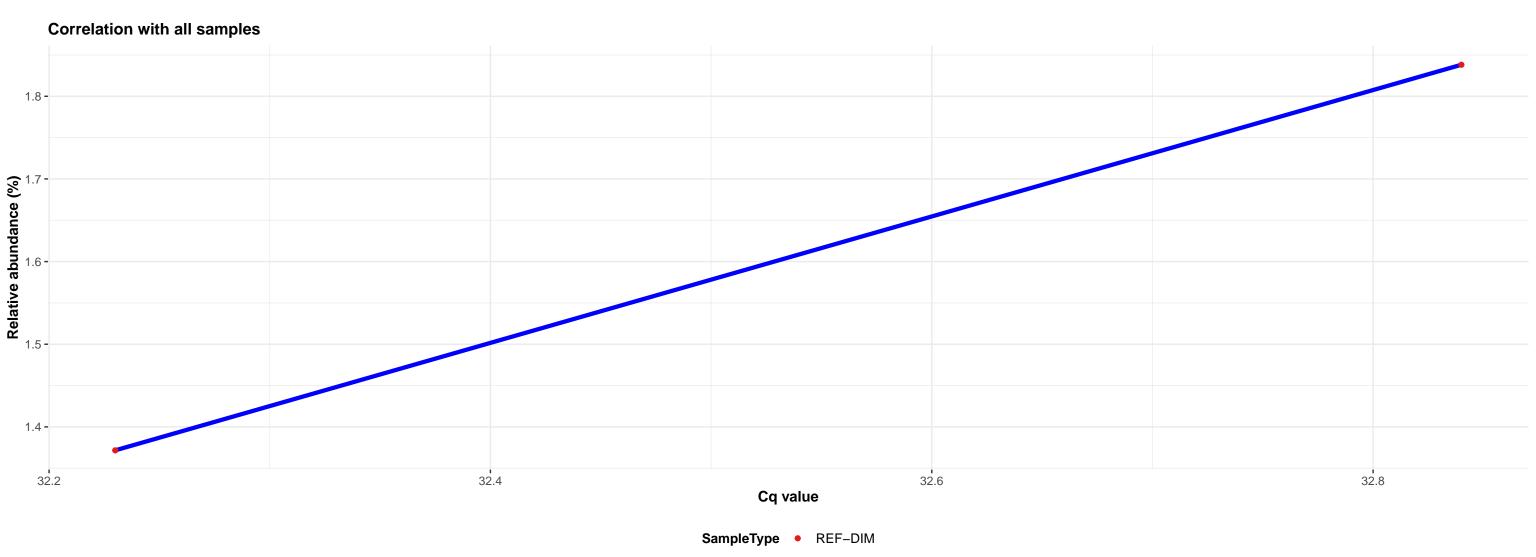


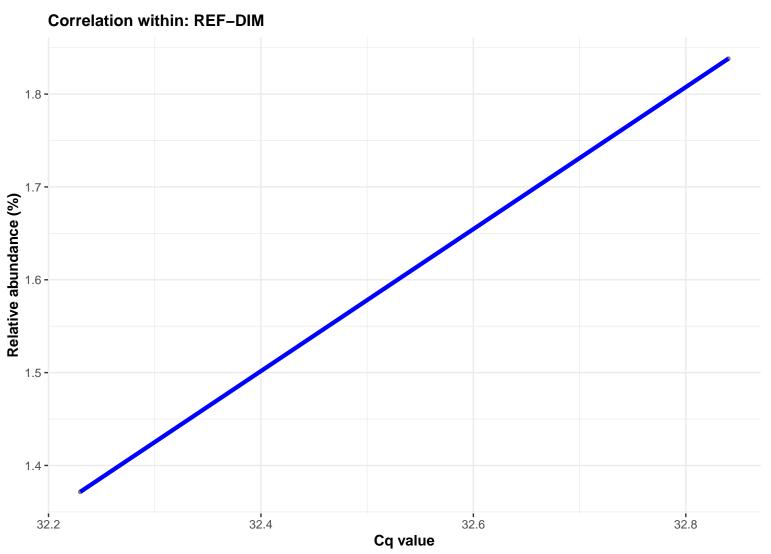












31.9

32.1

Cq value

32.3

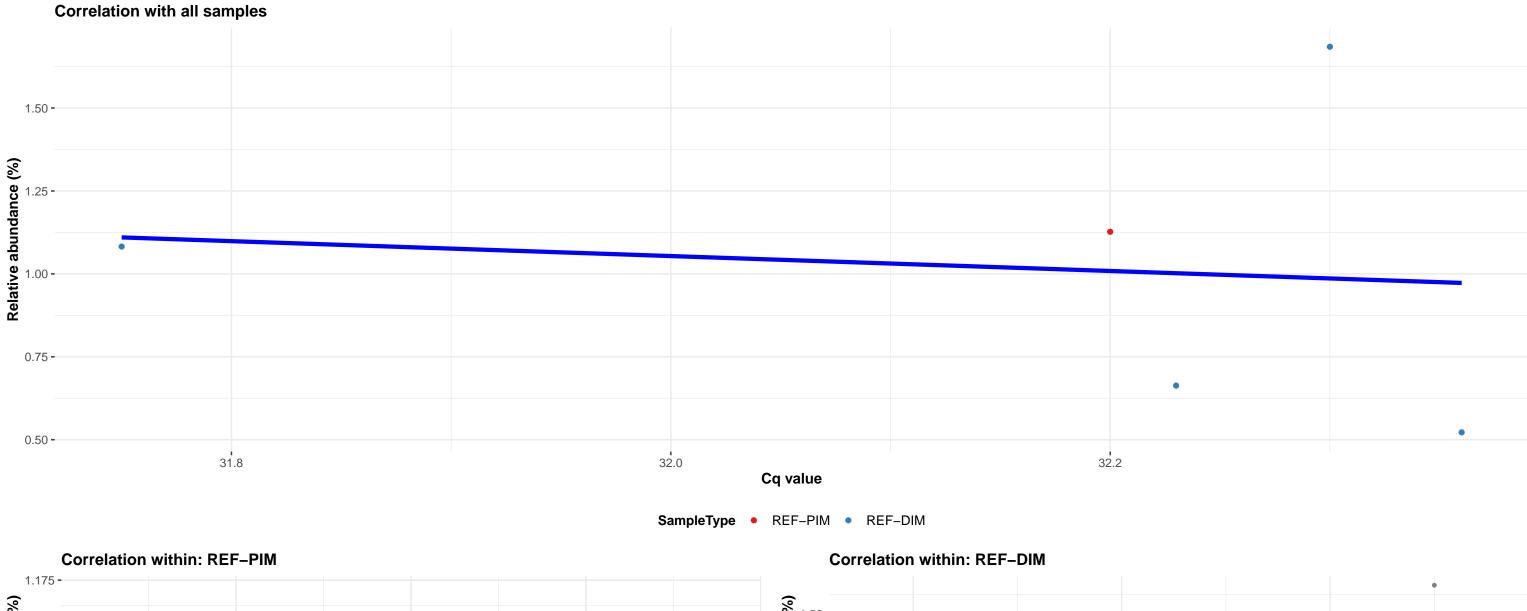
32.5

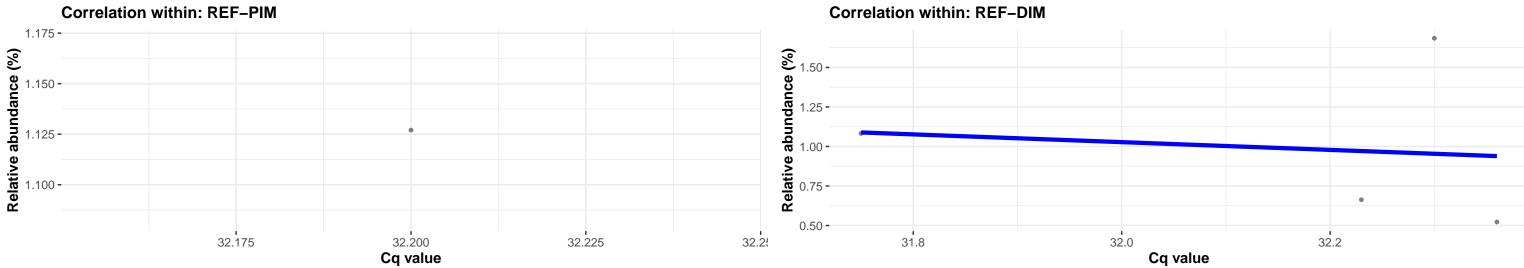
Correlation within: PCR-blank

30.850

30.875 **Cq value** 

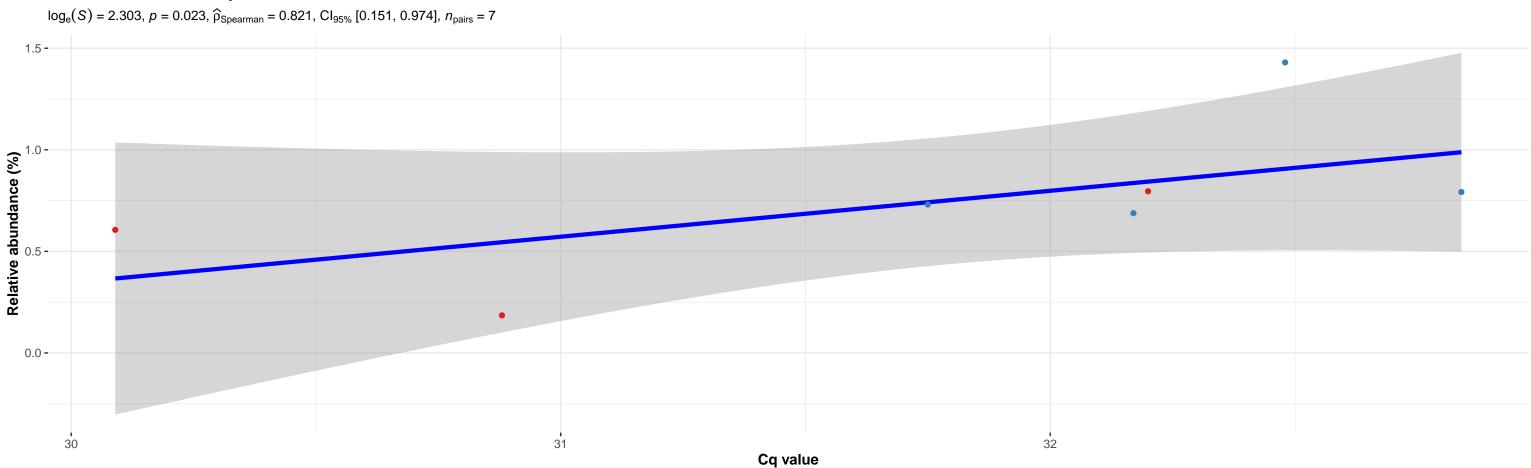
k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Rhodobacterales; f\_\_Rhodobacteraceae; g\_\_Pseudorhodobacter; NA



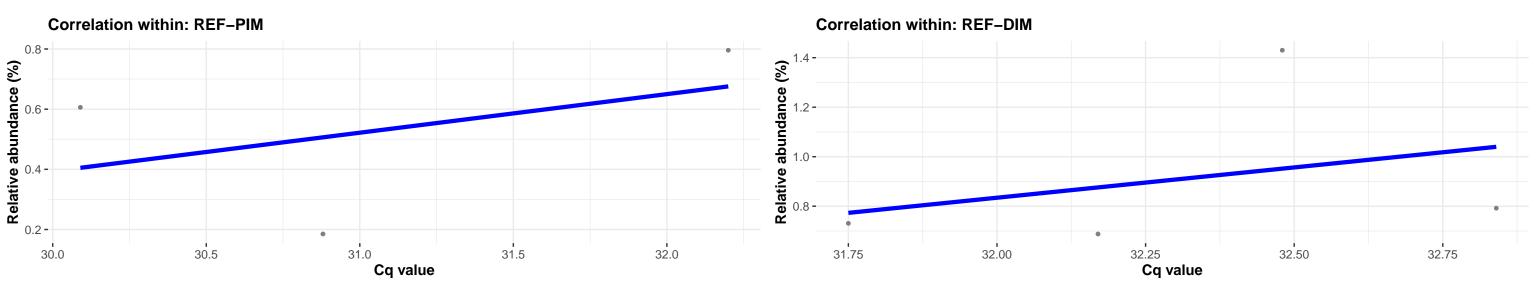


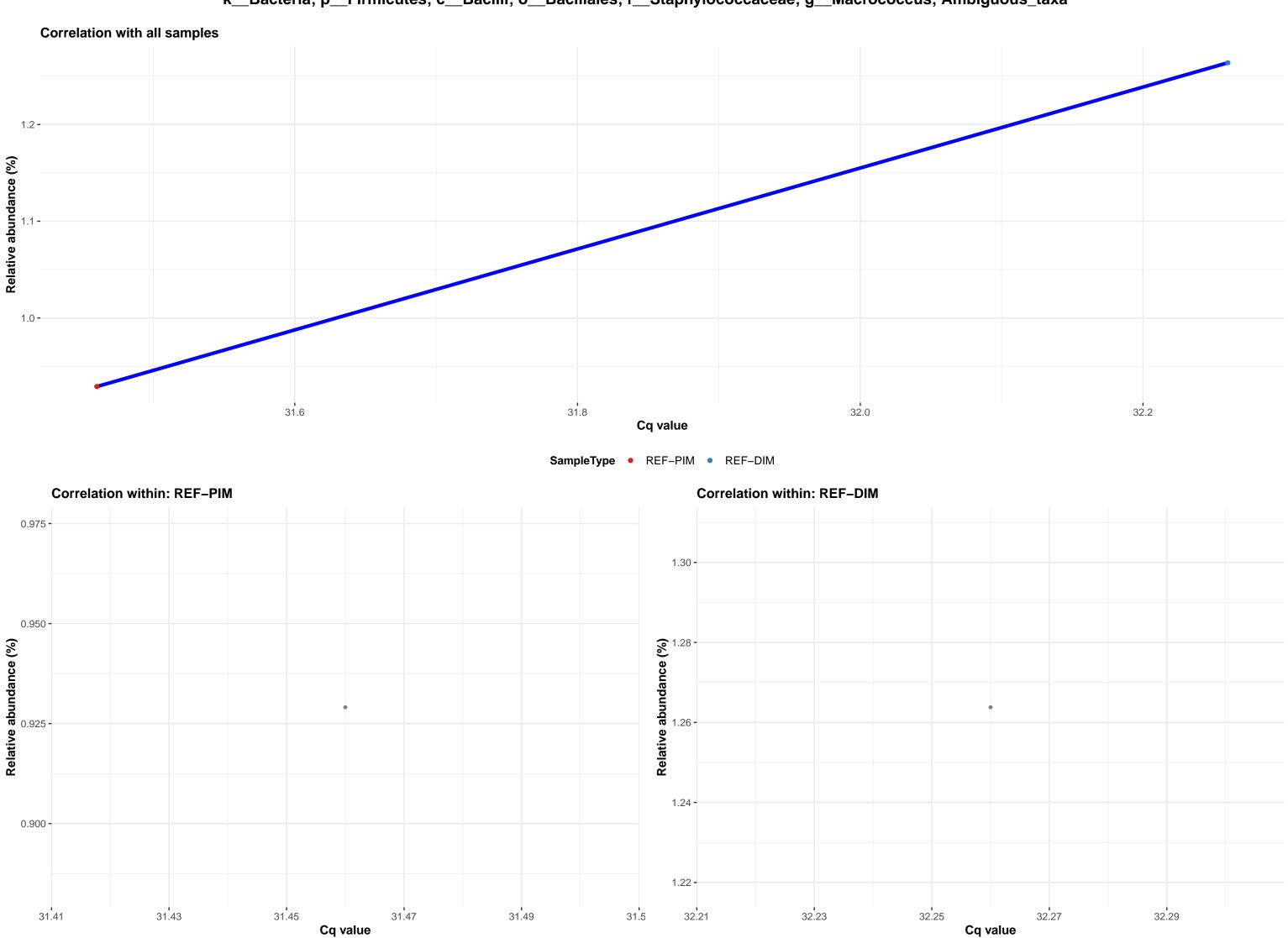
k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Rhizobiales; f\_\_Xanthobacteraceae; g\_\_Afipia; Ambiguous\_taxa

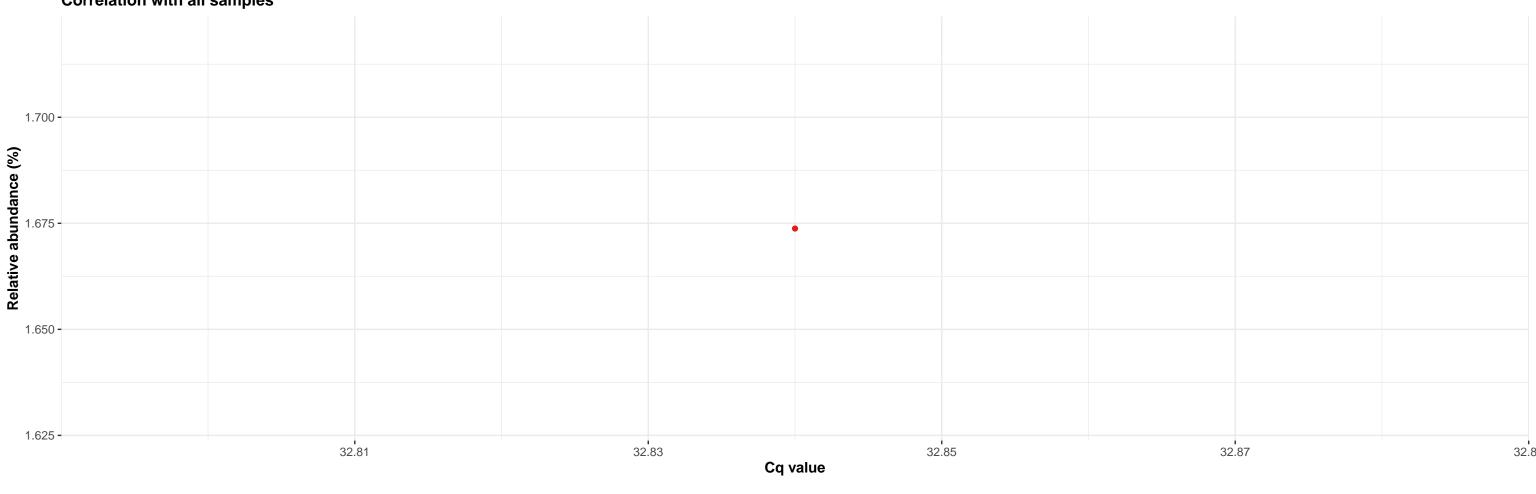




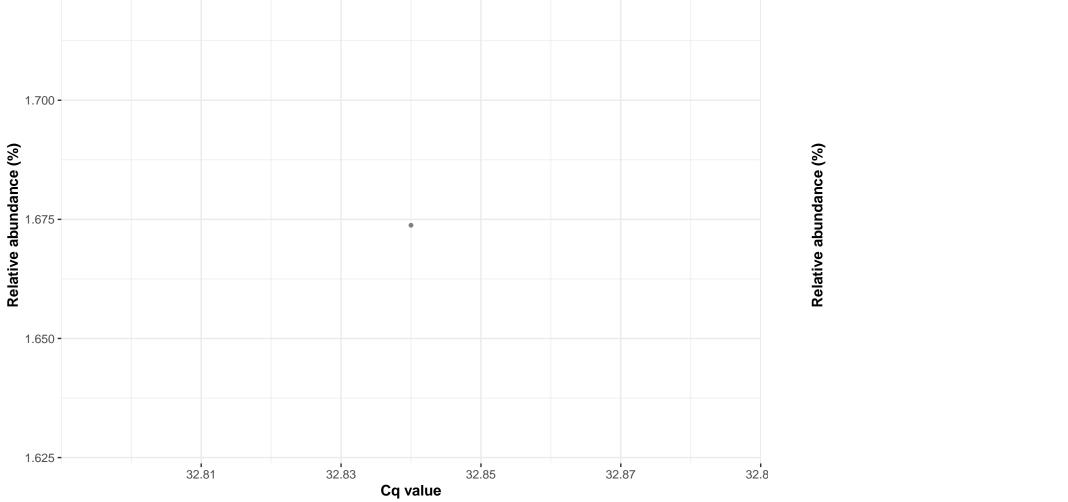








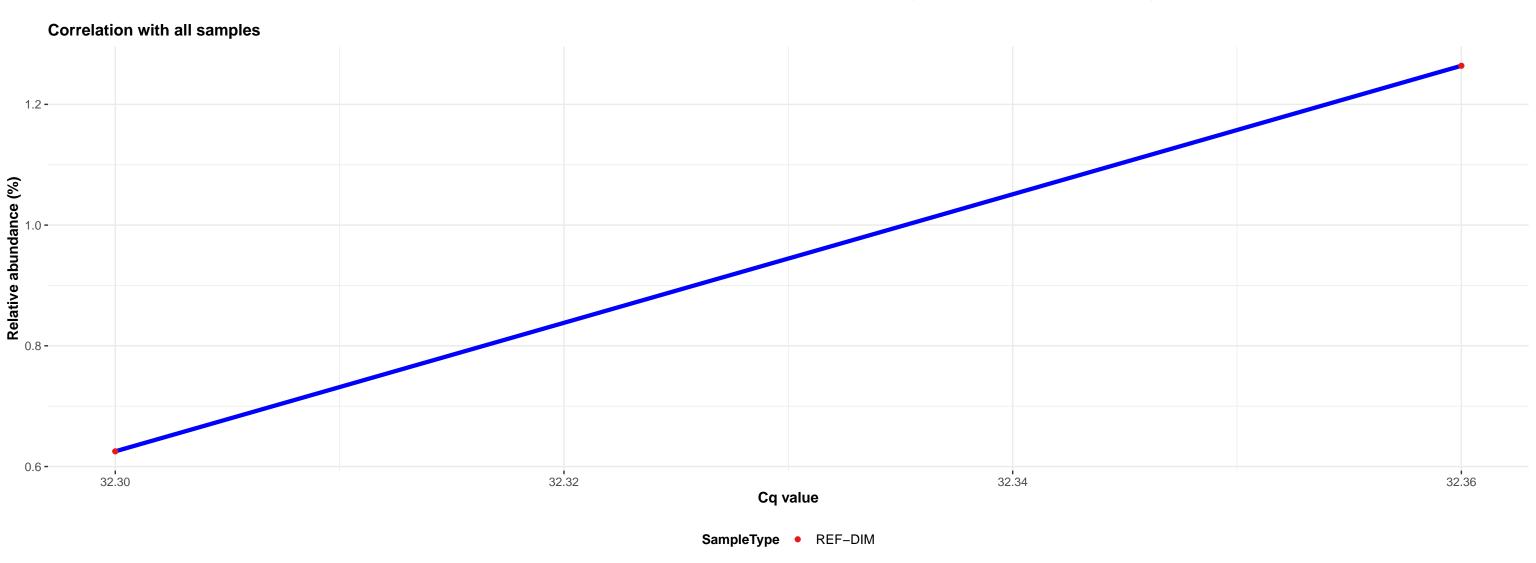


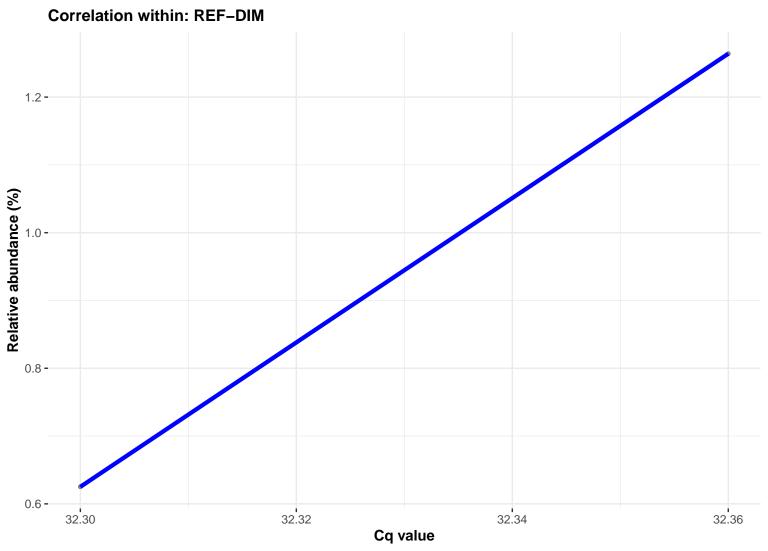


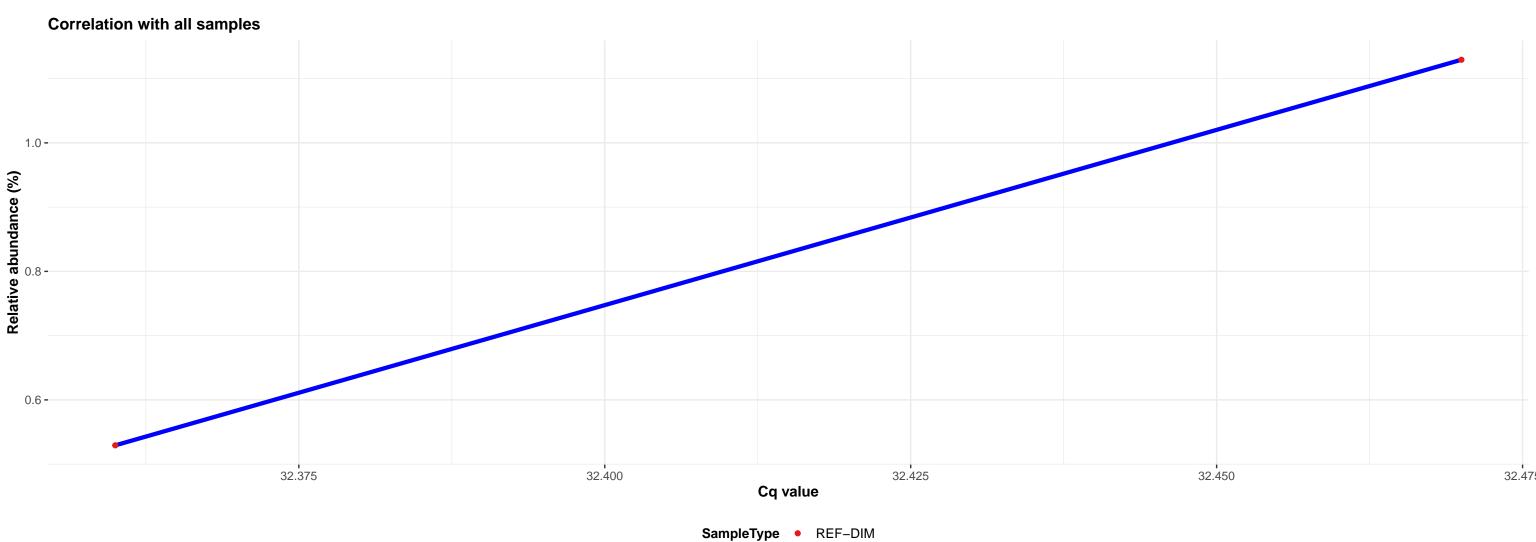
Correlation with all samples

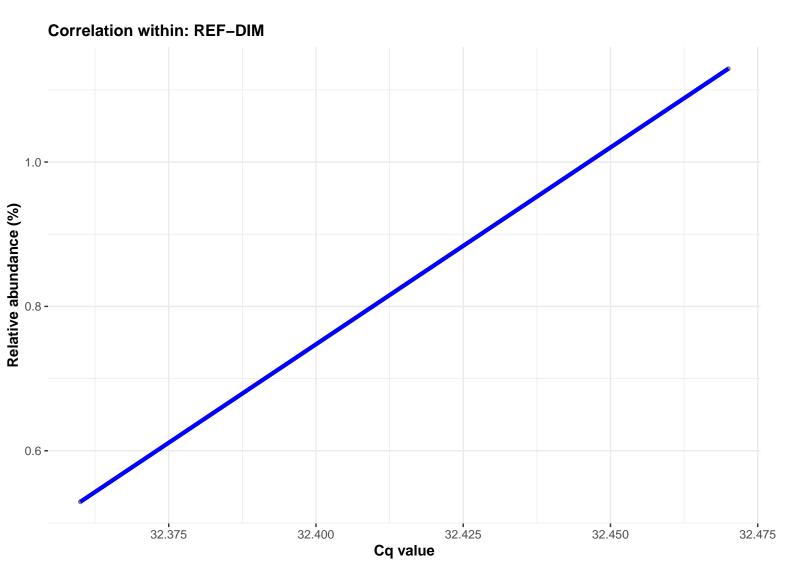
Relative abundance (%)

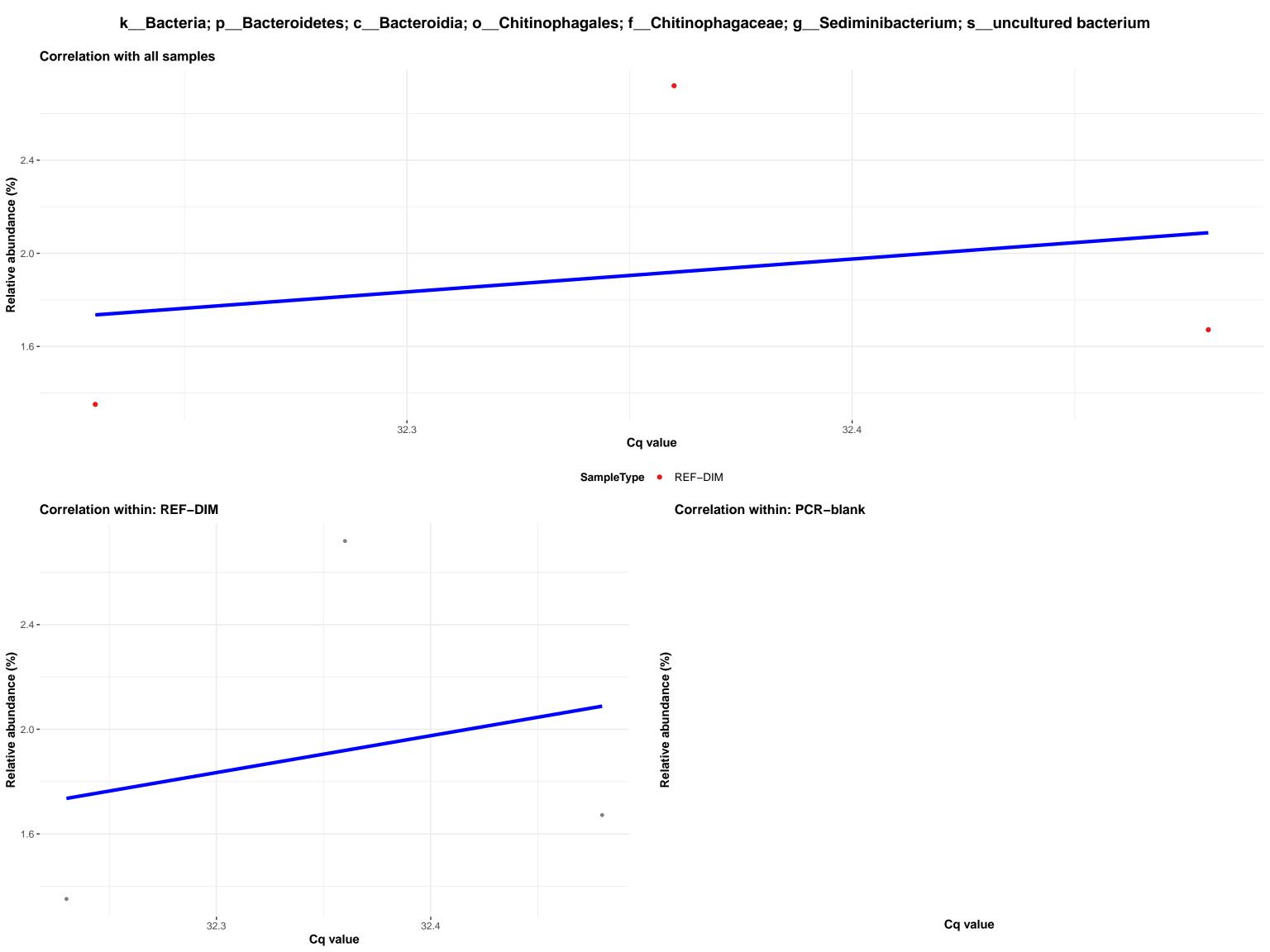
Cq value



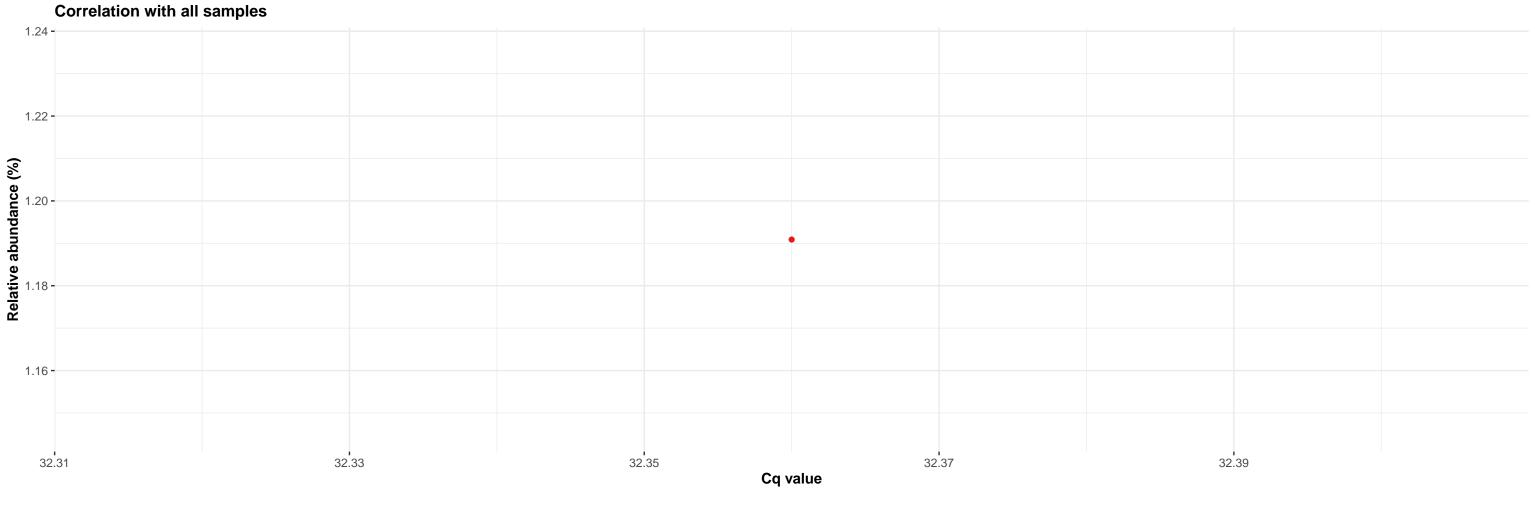




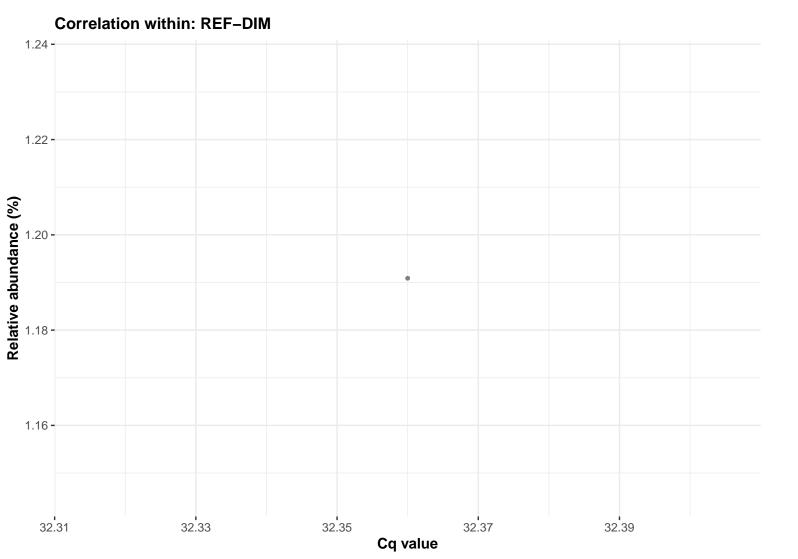




k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Bacillaceae; g\_\_Gracilibacillus; Ambiguous\_taxa

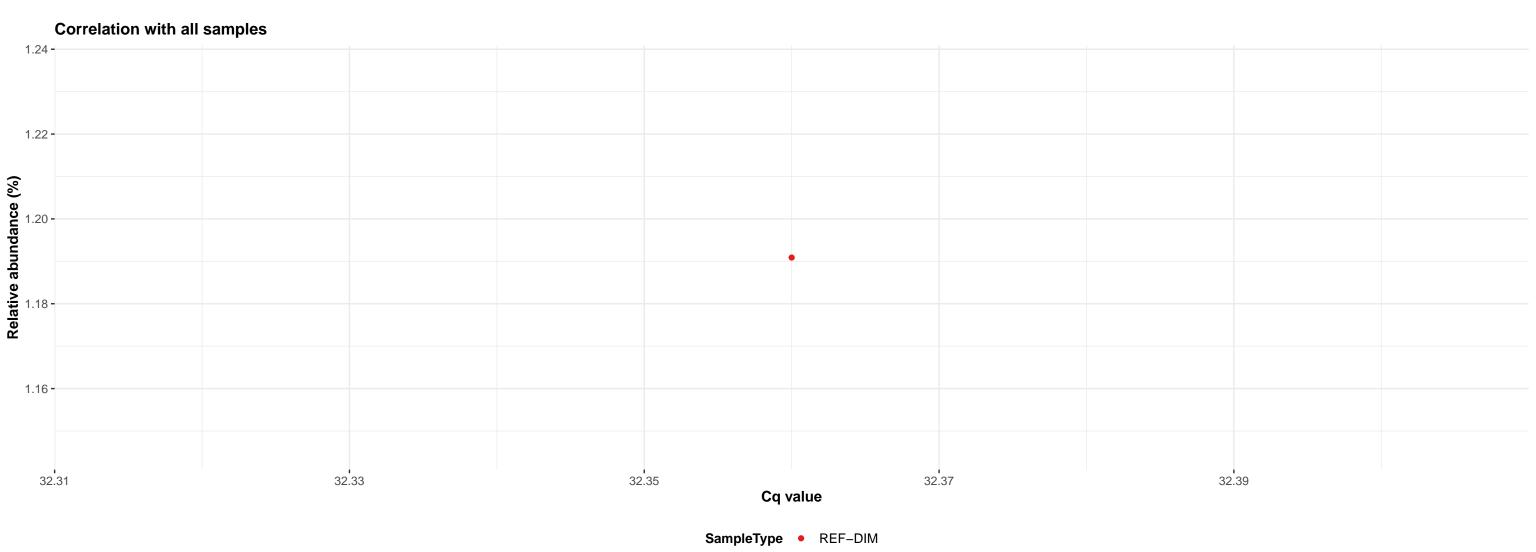


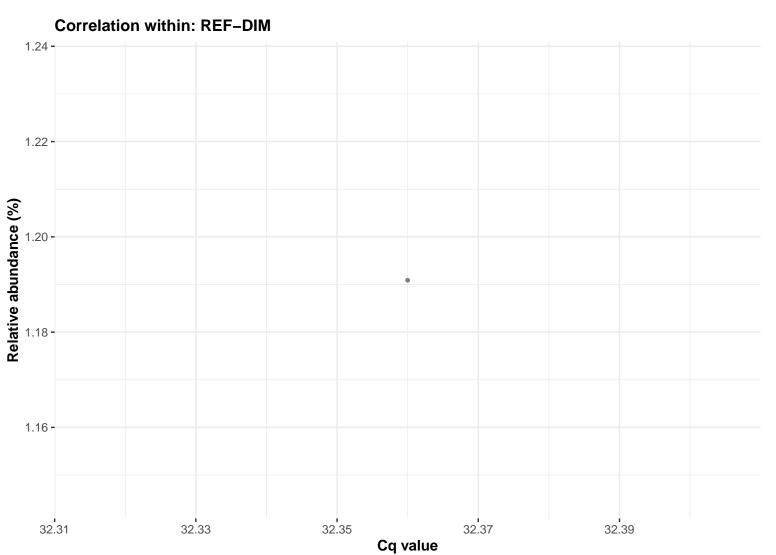


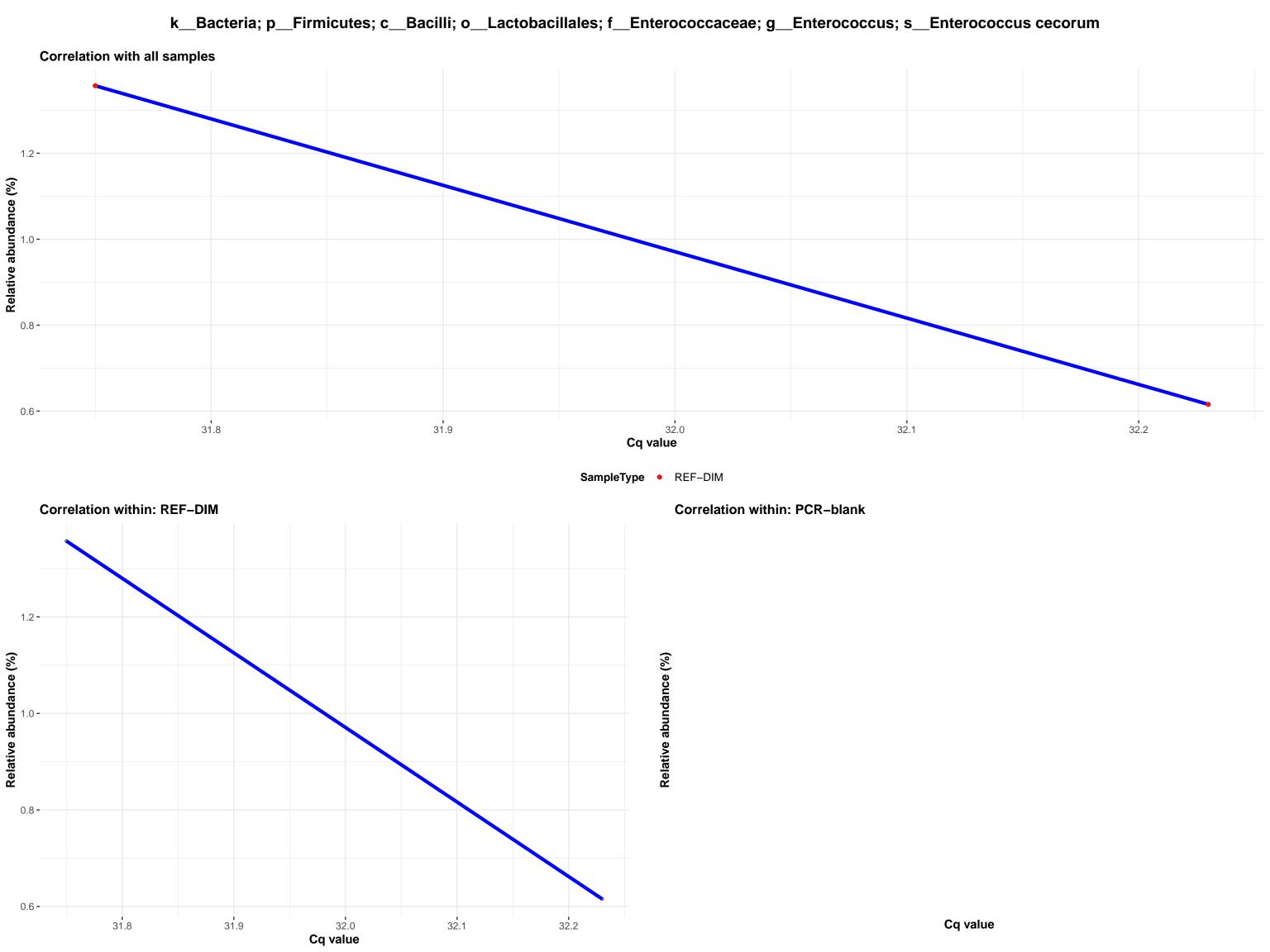


32.40

k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Micrococcales; f\_\_Microbacteriaceae; g\_\_Microbacterium; Ambiguous\_taxa







0.48 -

0.46 -

Relative abundance (%)

0.40 -

0.48 -

0.46 -

Relative abundance (%)

0.40 -

31.700

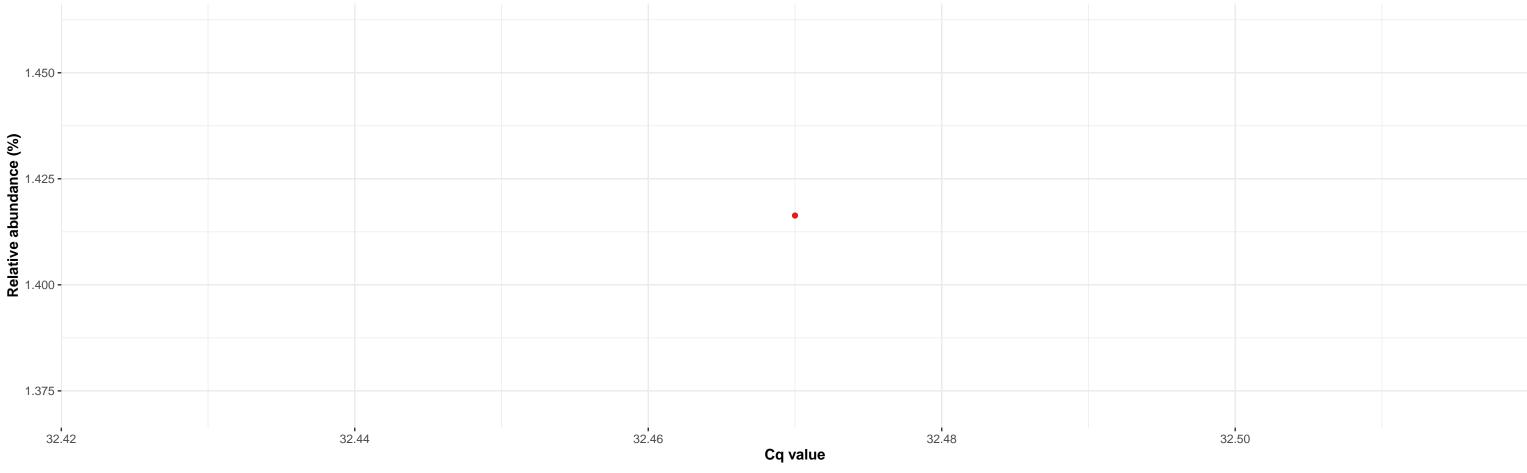
31.750

Cq value

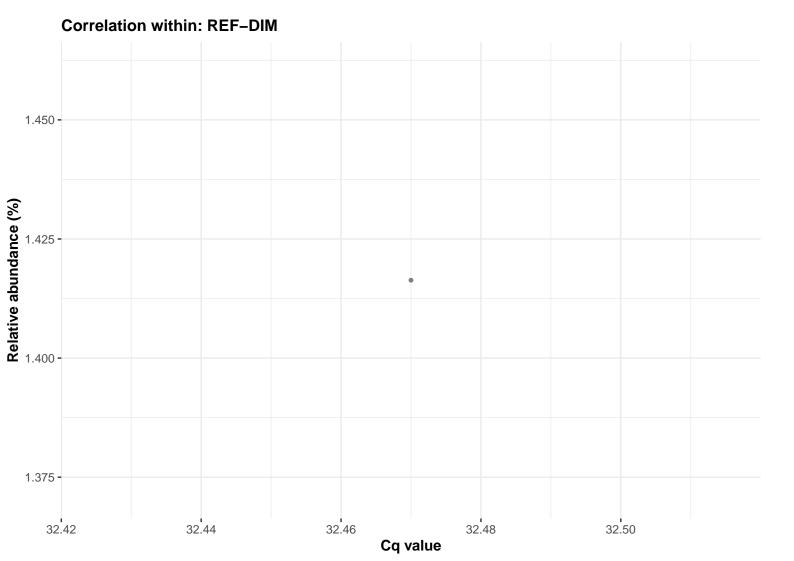
31.725

31.775





SampleType • REF-DIM



k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Staphylococcaceae; g\_\_Nosocomiicoccus; s\_\_uncultured bacterium

Correlation with all samples

Relative abundance (%)

Cq value

Correlation within: PCR-blank

Relative abundance (%)

Relative abundance (%)

Cq value

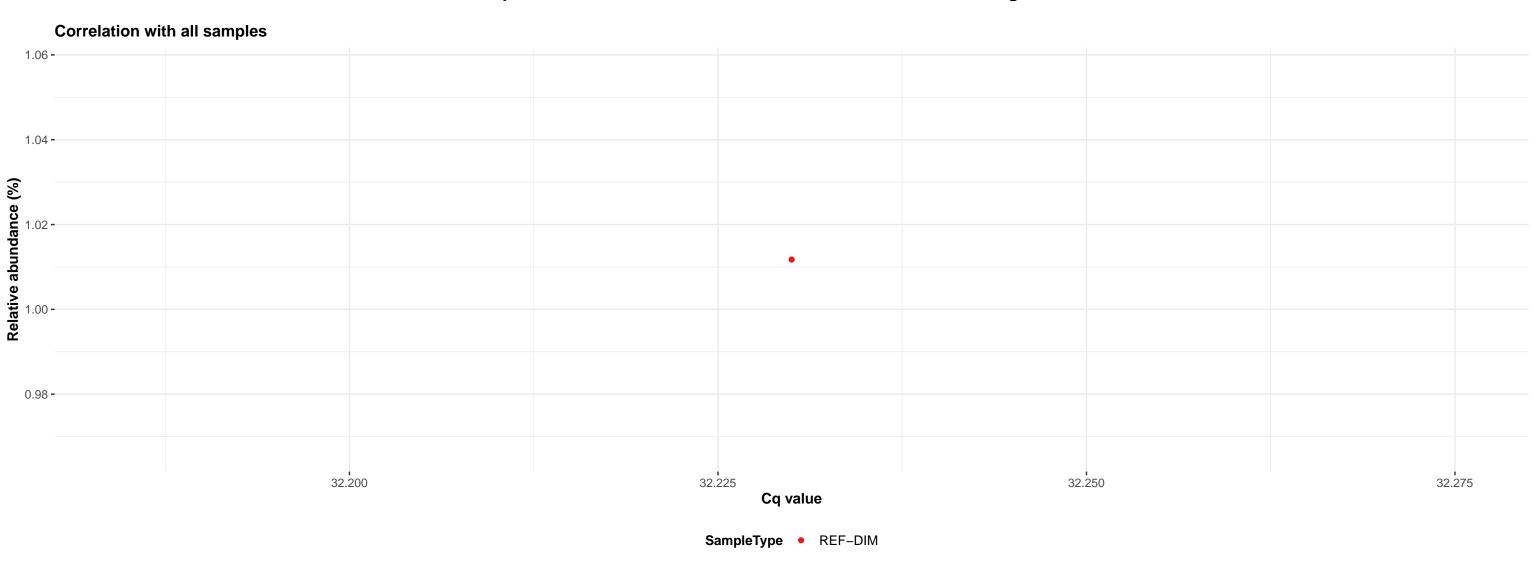
30.12

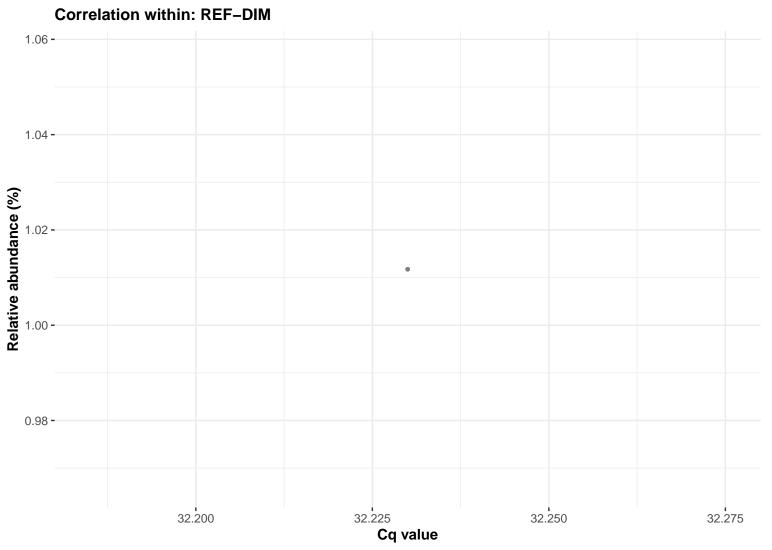
30.10

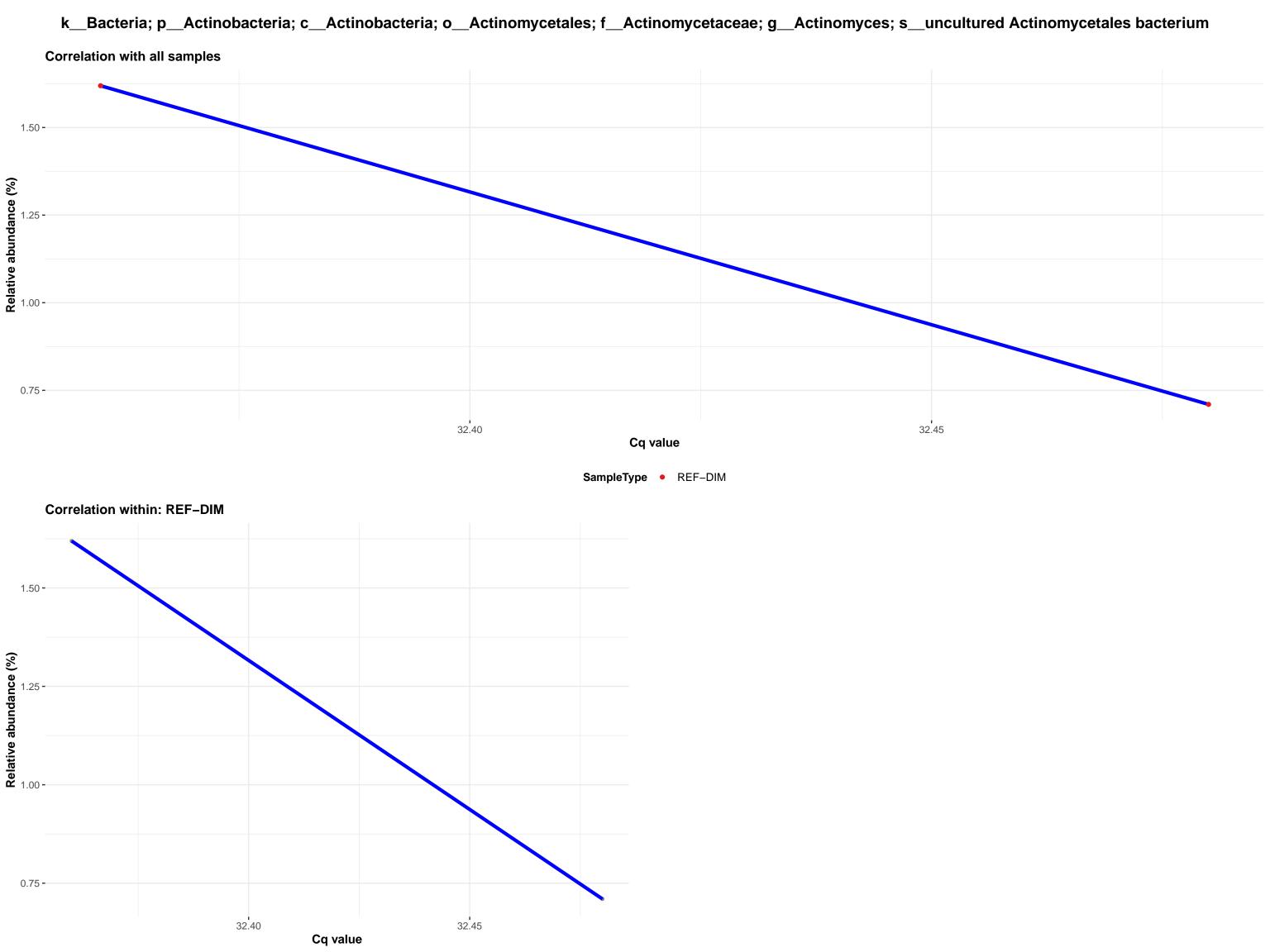
Cq value

30.04

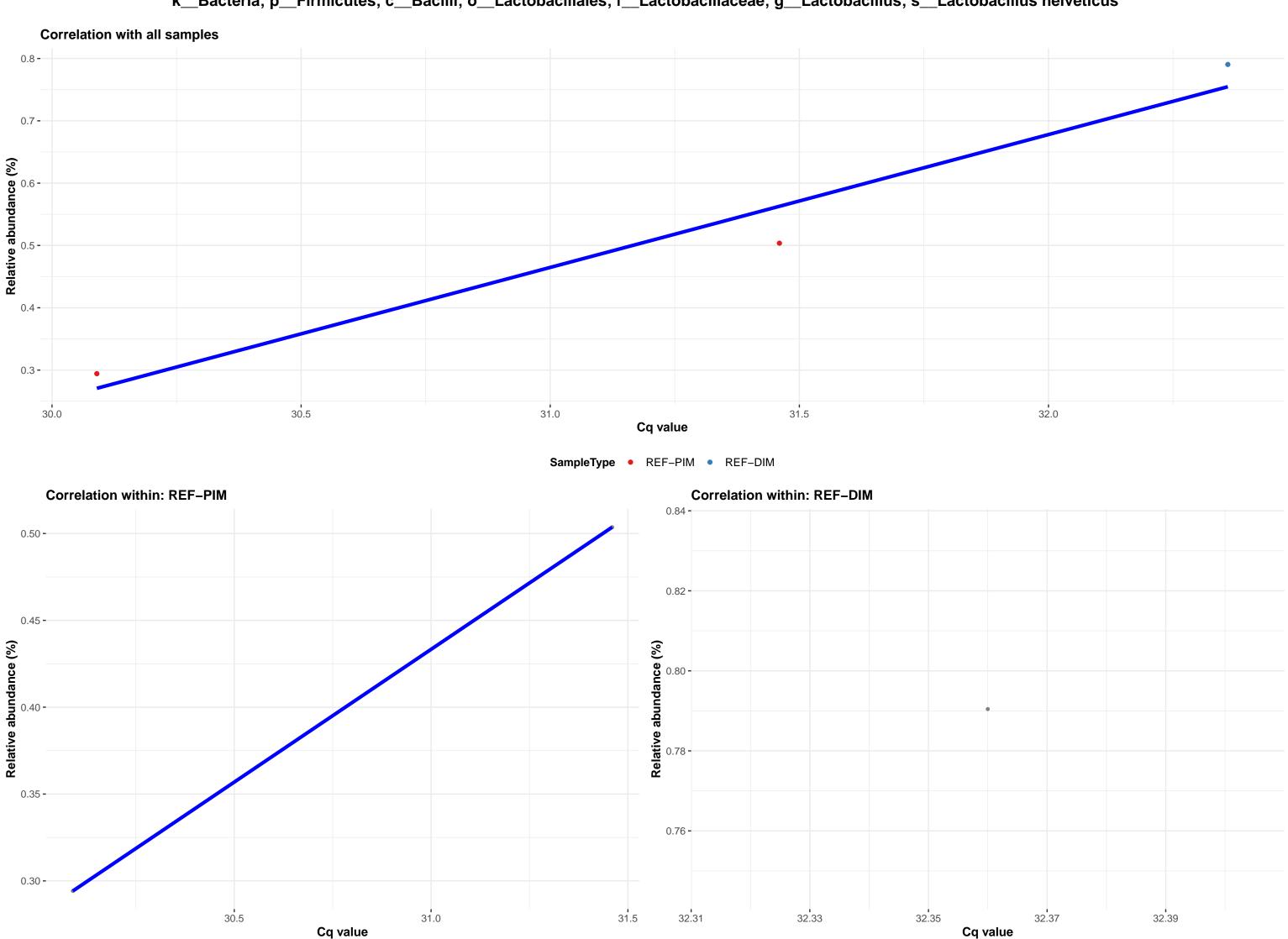
30.06



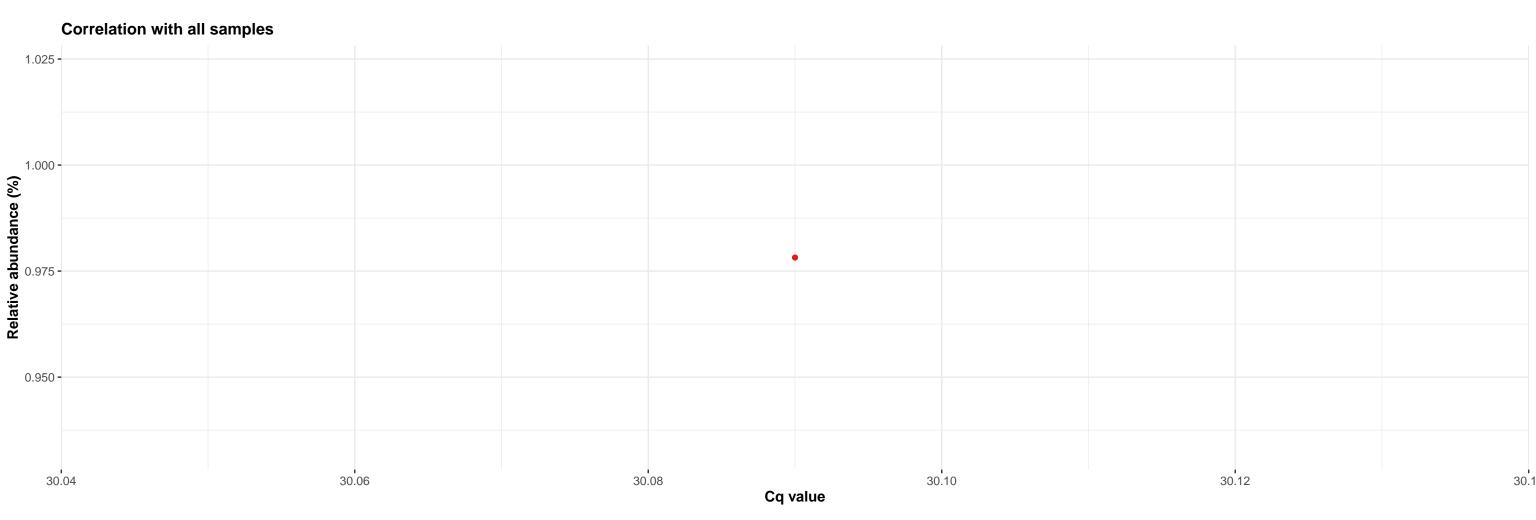




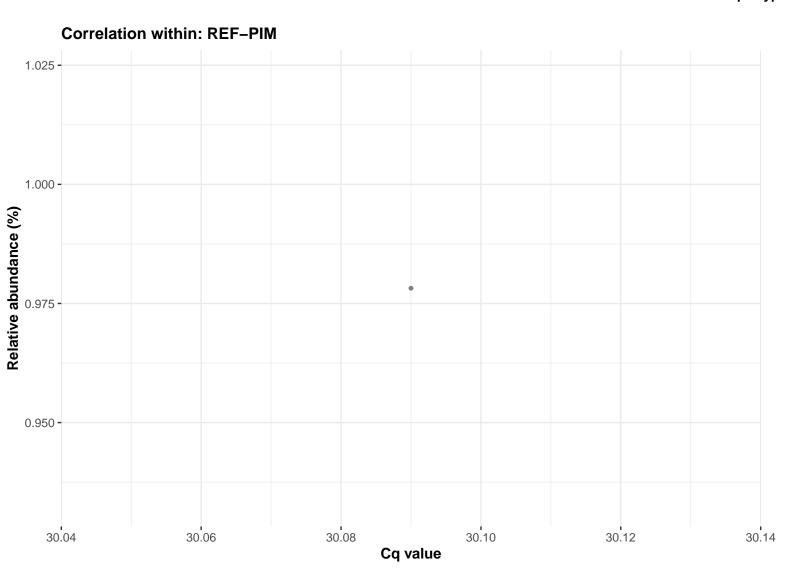
k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Lactobacillaceae; g\_\_Lactobacillus; s\_\_Lactobacillus helveticus



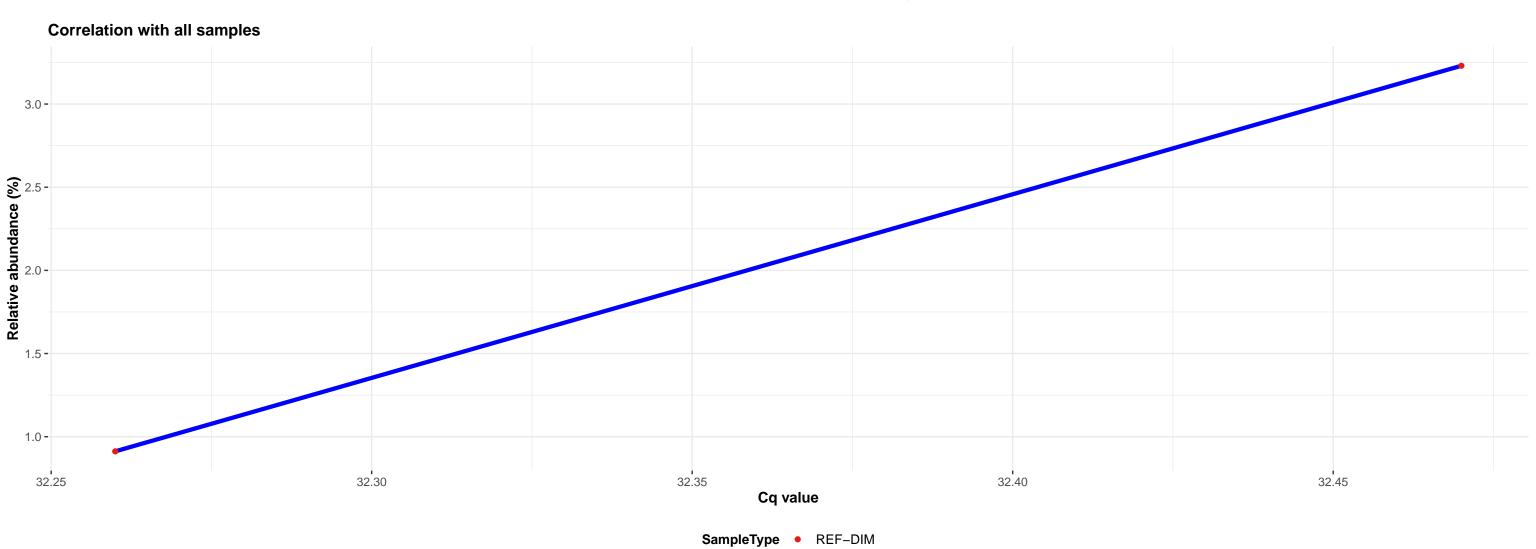
k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Lactobacillaceae; g\_\_Lactobacillus; NA

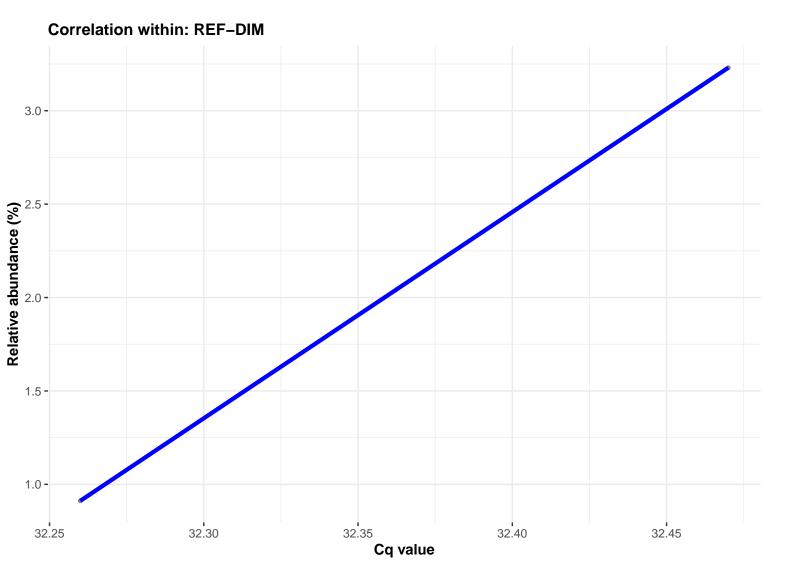


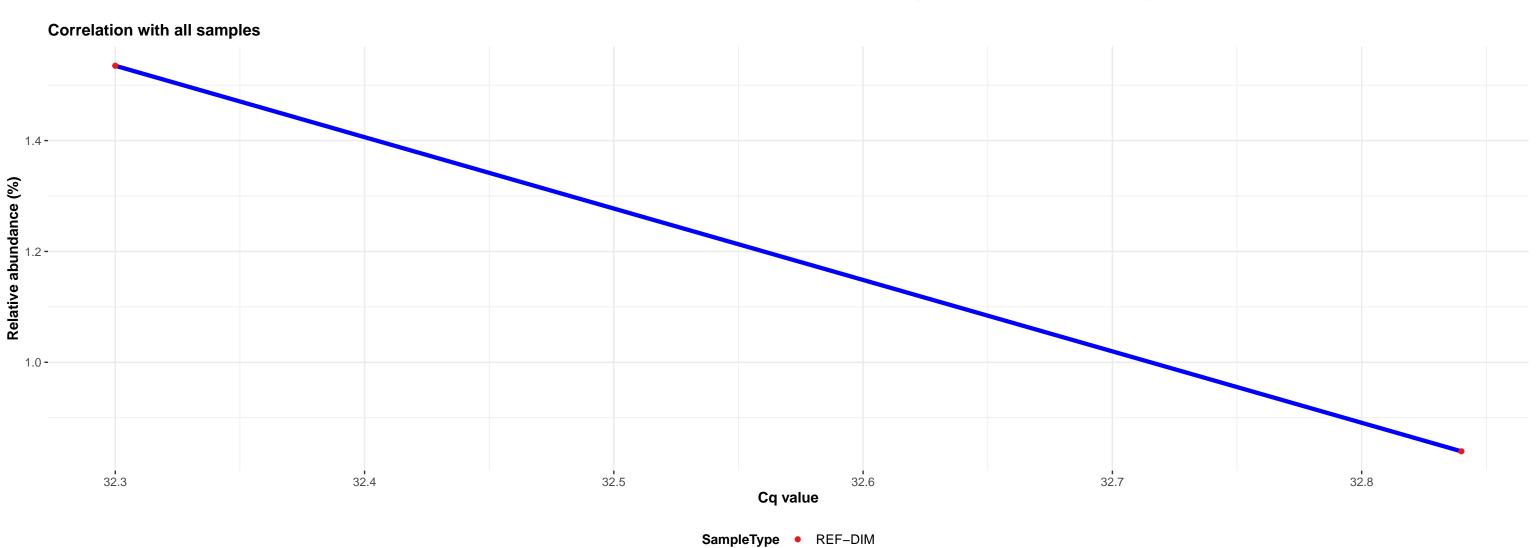


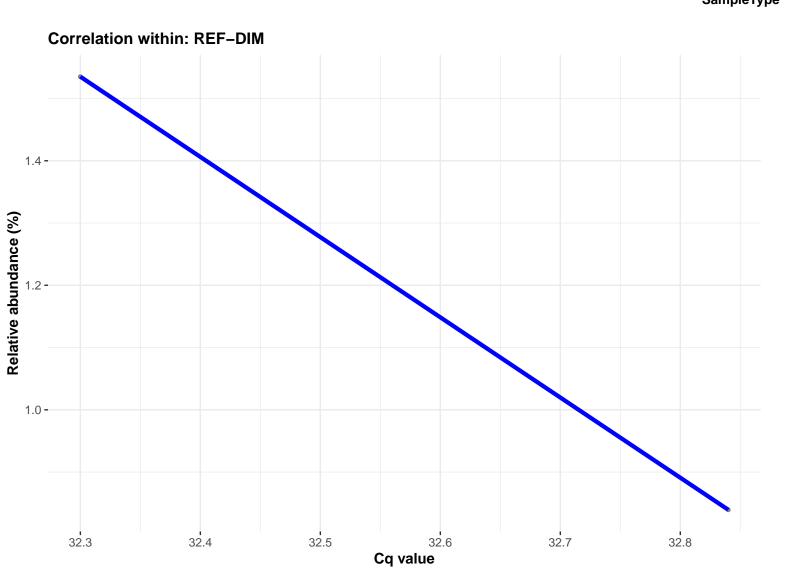


k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Lactobacillaceae; g\_\_Lactobacillus; s\_\_Lactobacillus sp. DJF\_WC57









k\_\_Bacteria; p\_\_Proteobacteria; c\_\_Alphaproteobacteria; o\_\_Sphingomonadales; f\_\_Sphingomonadaceae; g\_\_Sphingomonas; NA **Correlation with all samples** 1.575 **-**1.550 - (%) Selative abundance (%) 1.500 -32.125 32.150 32.175 32.200 Cq value SampleType • REF-DIM Correlation within: REF-DIM Correlation within: PCR-blank 1.575 -1.550 **-**Relative abundance (%) Relative abundance (%) 1.500 **-**

32.200

32.175

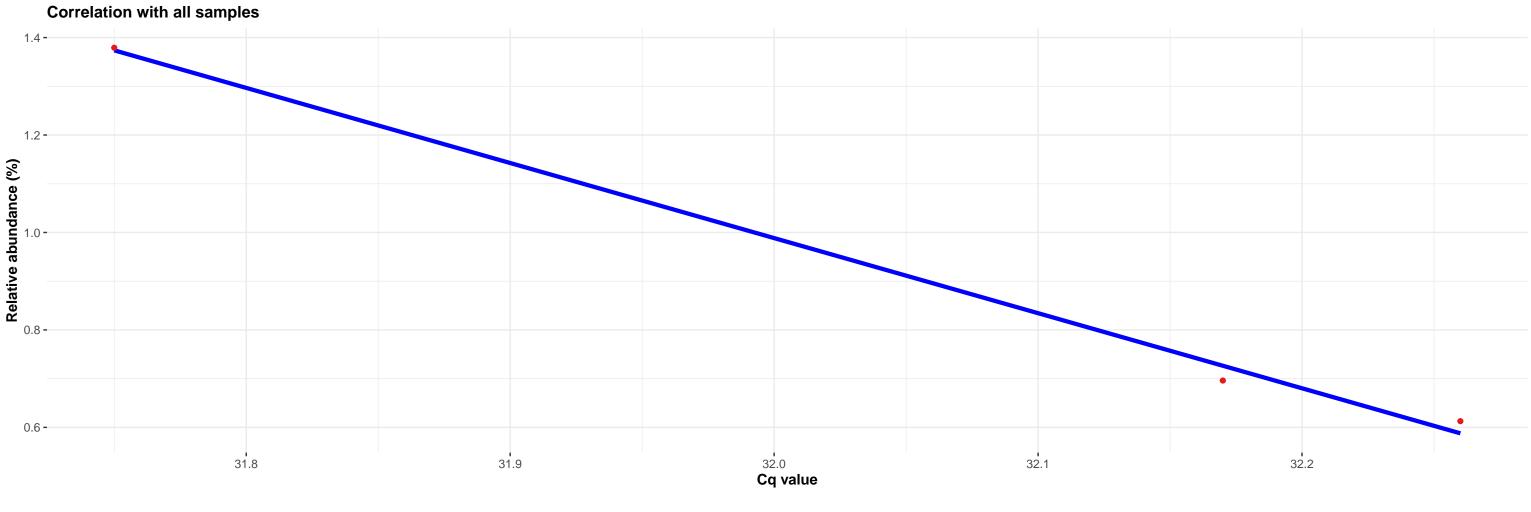
Cq value

32.125

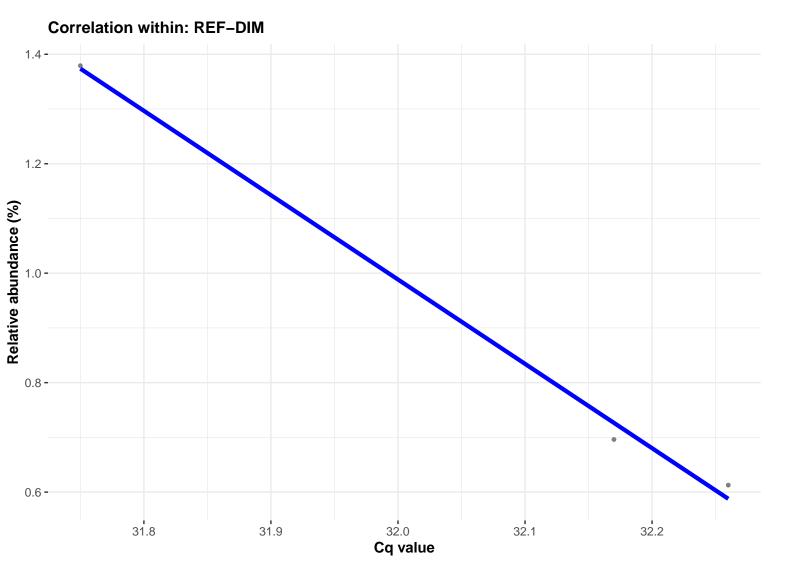
32.150

Cq value

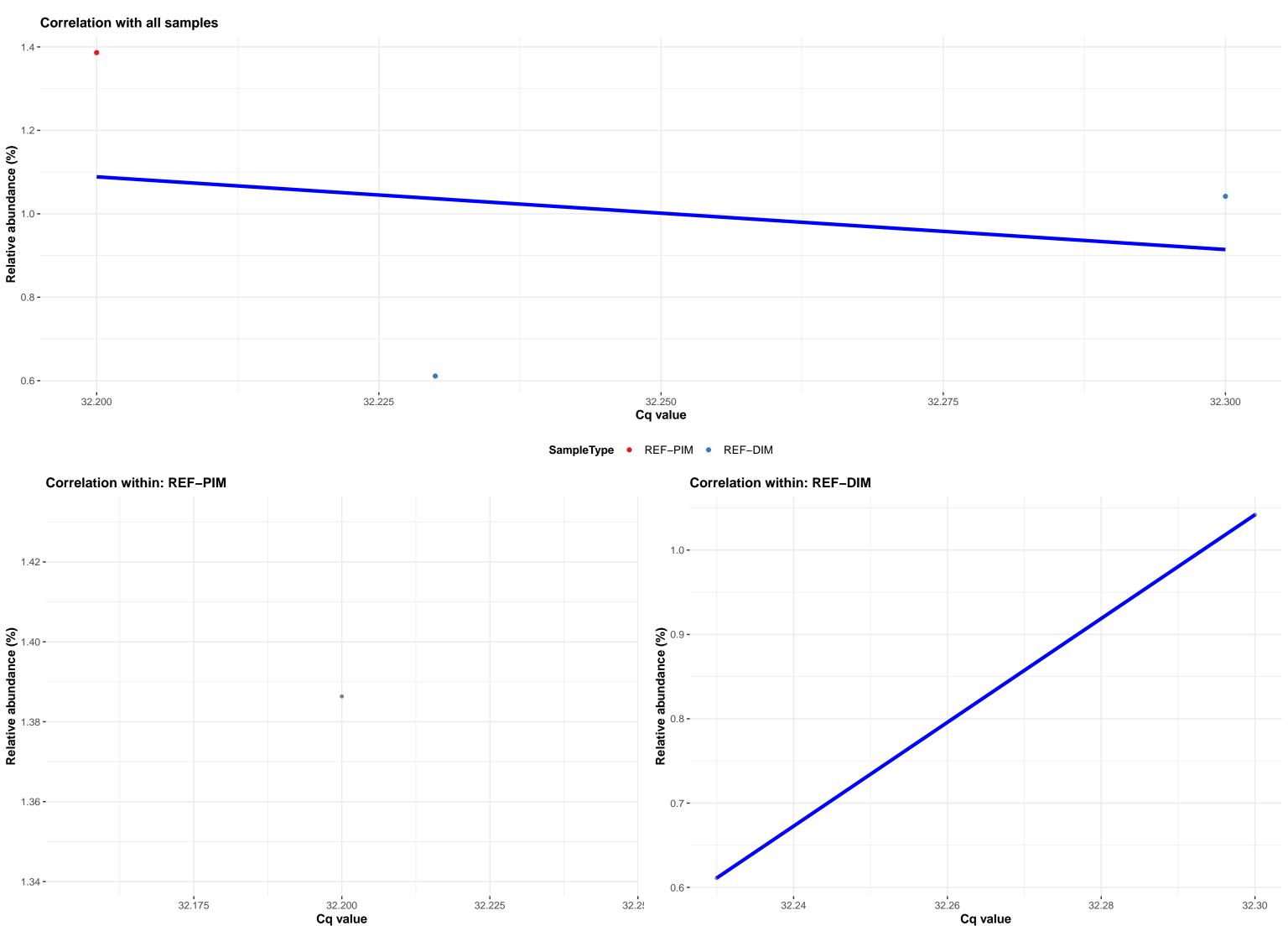
k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Bacillales; f\_\_Planococcaceae; g\_\_Kurthia; s\_\_uncultured bacterium



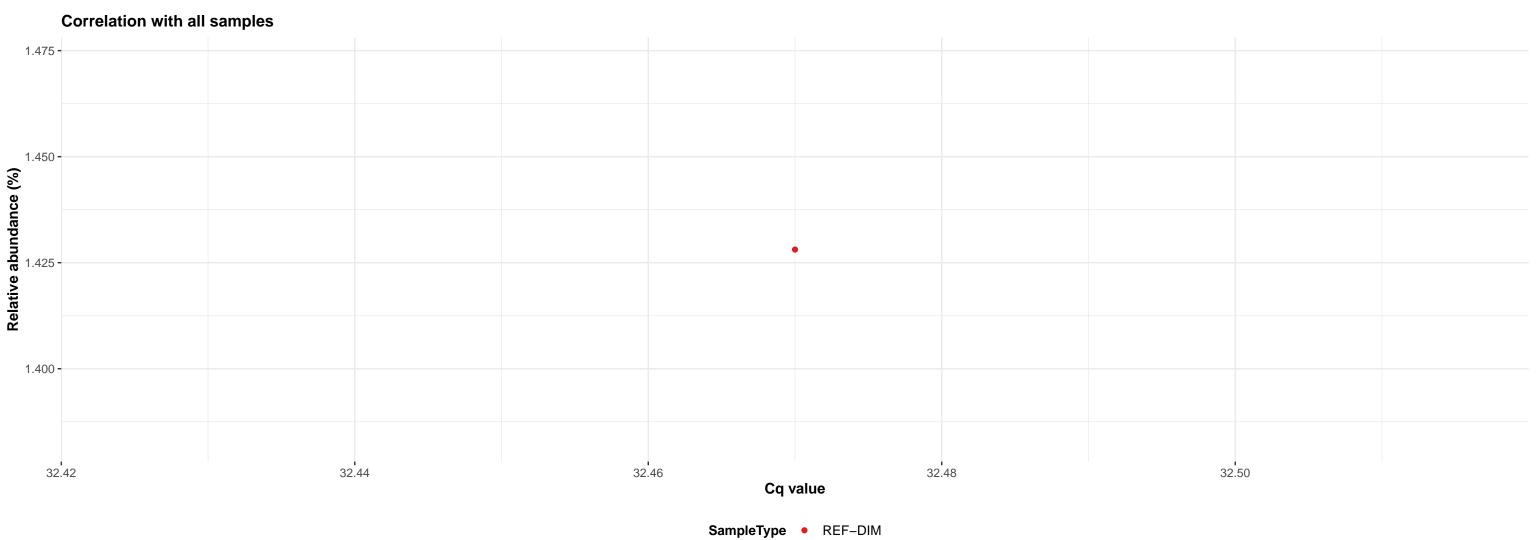


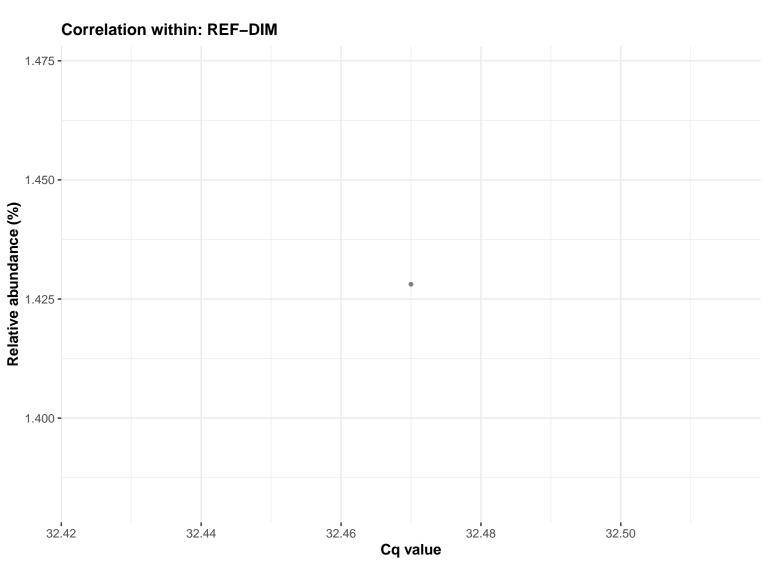


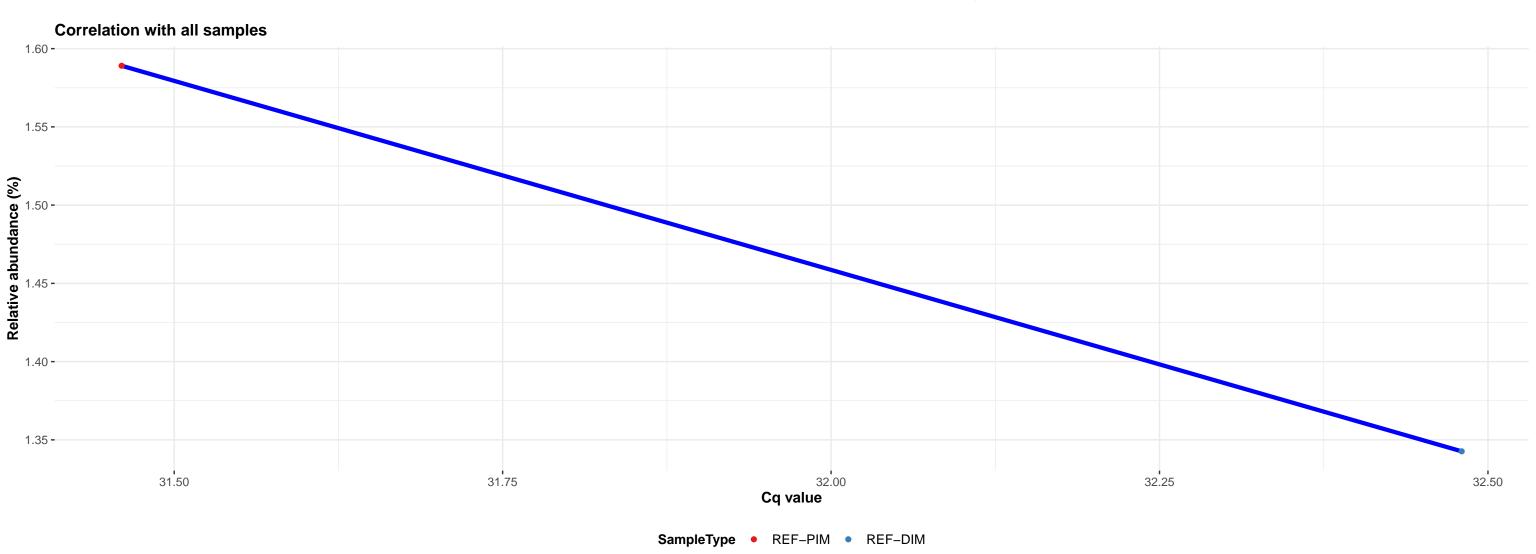
k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Streptococcaceae; g\_\_Streptococcus; Ambiguous\_taxa

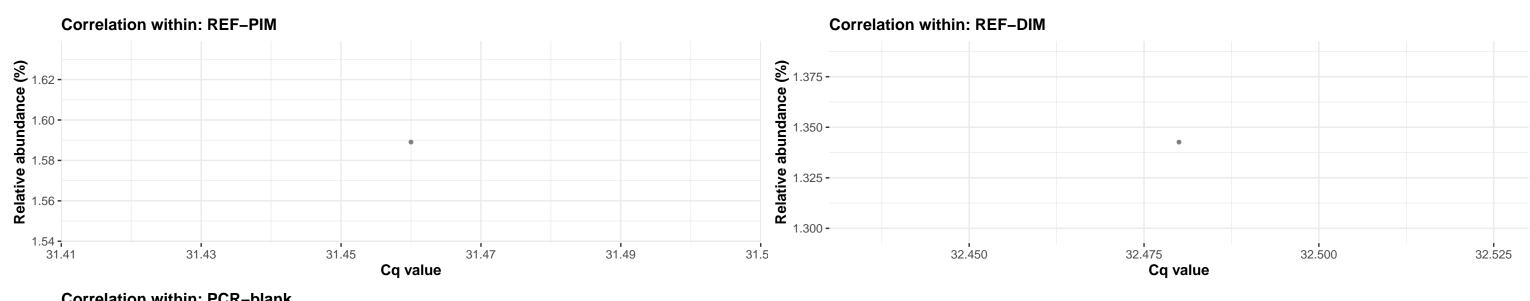


k\_\_Bacteria; p\_\_Actinobacteria; c\_\_Actinobacteria; o\_\_Corynebacteriales; f\_\_Corynebacteriaceae; g\_\_Corynebacterium 1; Ambiguous\_taxa

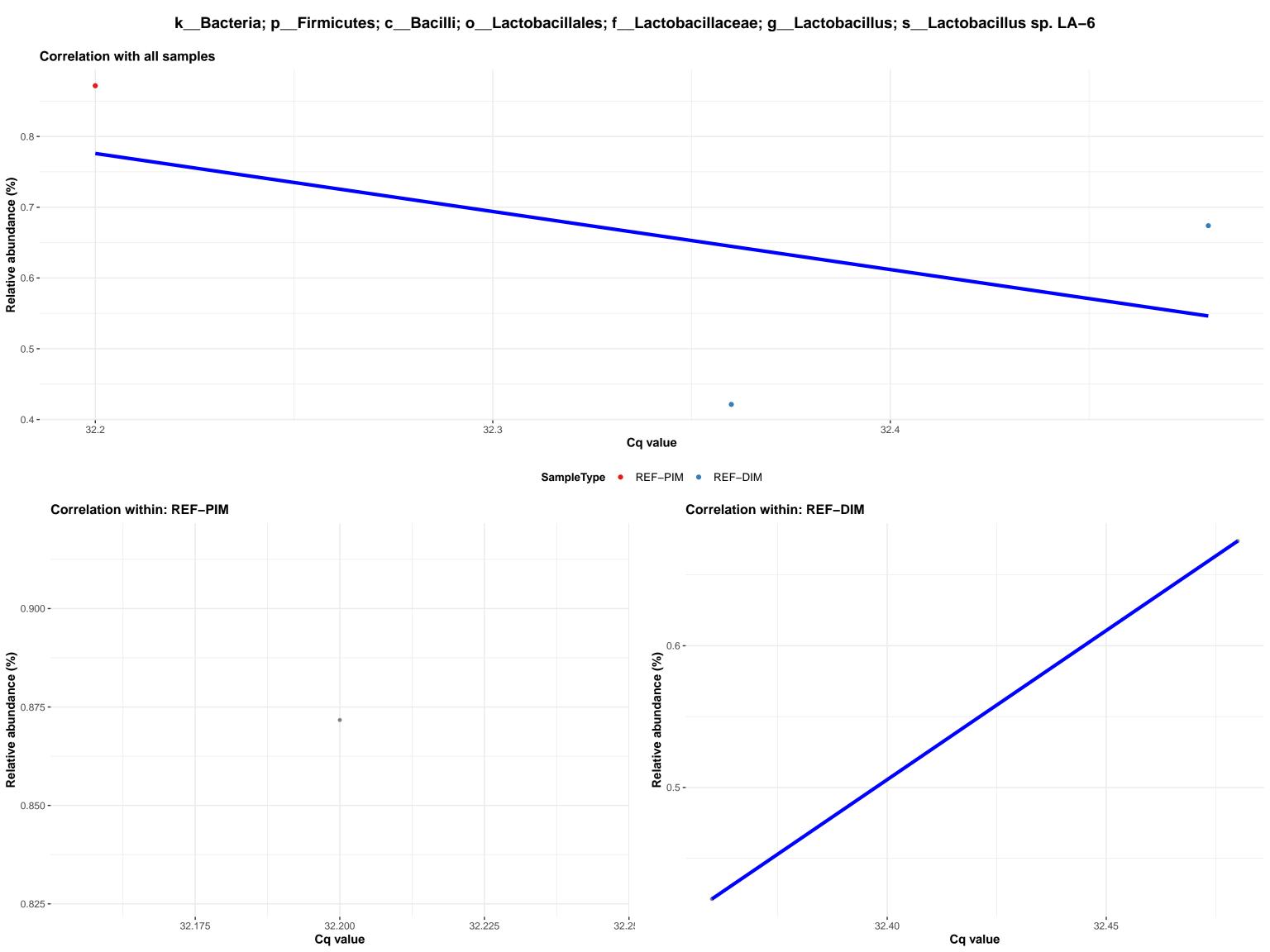








Correlation within: PCR-blank



k\_\_Bacteria; p\_\_Firmicutes; c\_\_Bacilli; o\_\_Lactobacillales; f\_\_Streptococcaceae; g\_\_Lactococcus; NA

