

ARGSYN.PWY

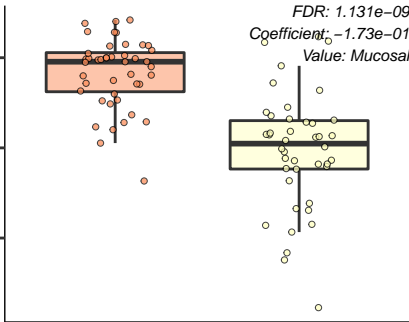
0.4
0.2
0.0

Luminal (n=44)

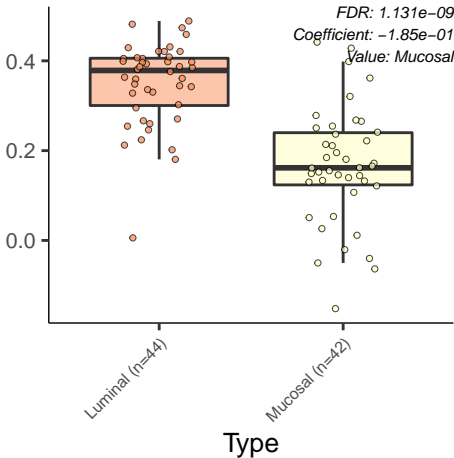
Mucosal (n=42)

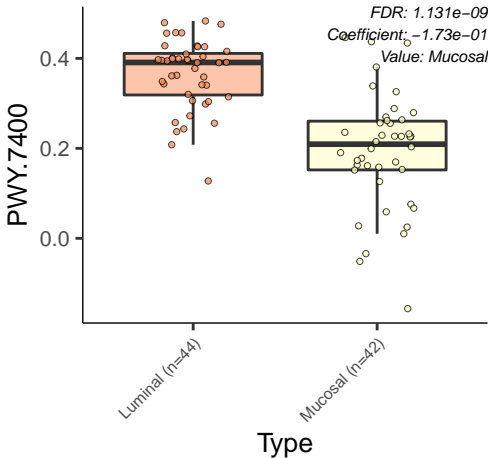
Type

FDR: $1.131\text{e-}09$
Coefficient: $-1.73\text{e-}01$
Value: Mucosal



ARGSYNBSUB.PWY





PWY.6737

Luminal (n=44)

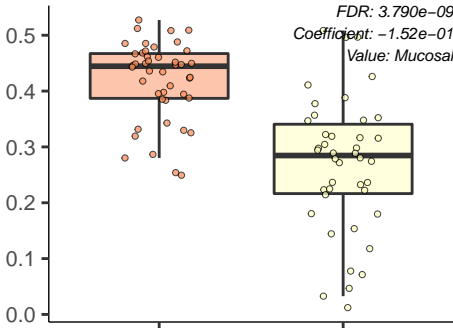
Mucosal (n=42)

Type

FDR: 3.790e-09

Coefficient: -1.52e-01

Value: Mucosal



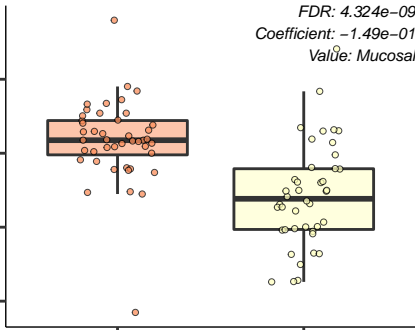
DAPLYSINESYN.PWY

FDR: $4.324e-09$
Coefficient: $-1.49e-01$
Value: Mucosal

Luminal (n=44)

Mucosal (n=42)

Type



GLYCOCAT.PWY

Luminal (n=44)

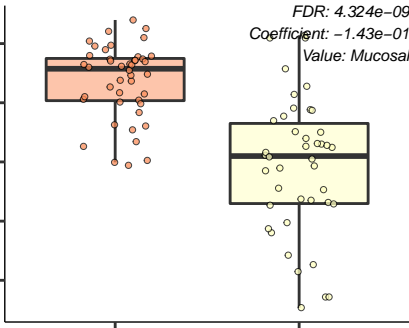
Mucosal (n=42)

Type

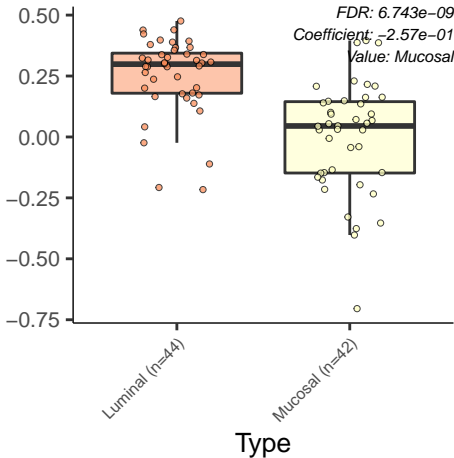
FDR: 4.324e-09

Coefficient: -1.43e-01

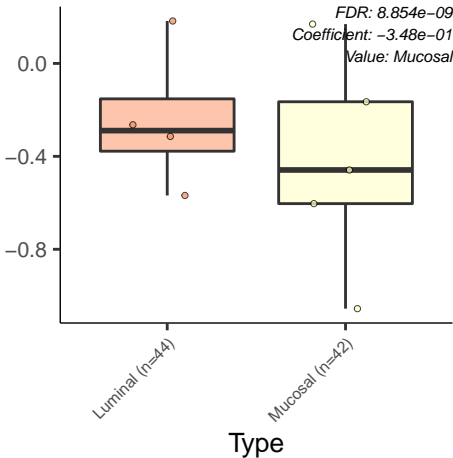
Value: Mucosal



GLUTORN.PWY



PWY.6396



X1CMET2.PWY

FDR: 1.201e-08

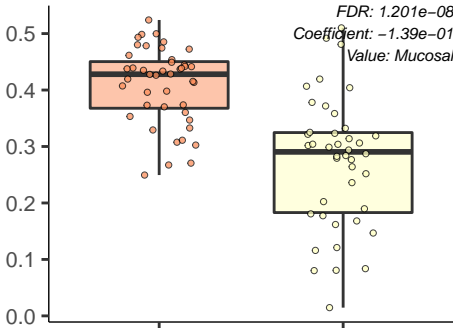
Coefficient: -1.39e-01

Value: Mucosal

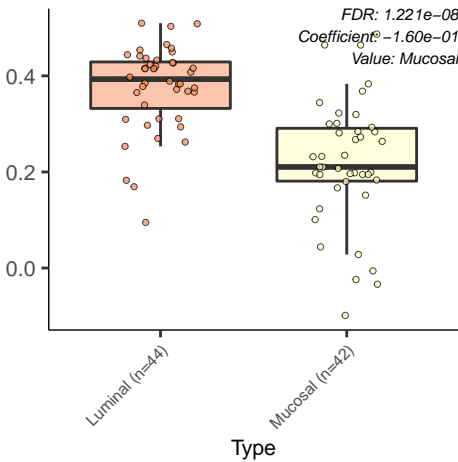
Luminal (n=44)

Mucosal (n=42)

Type



BRANCHED.CHAIN.AA.SYN.PWY



PWY.5101

Luminal (n=44)

Mucosal (n=42)

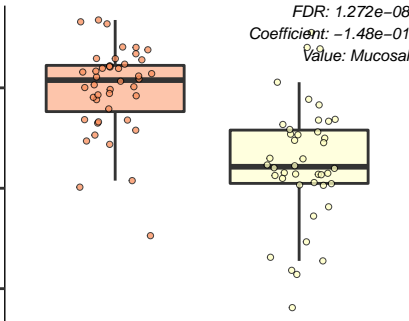
Type

FDR: $1.272e-08$
Coefficient: $-1.48e-01$
Value: Mucosal

0.4

0.2

0.0



PWY.5103

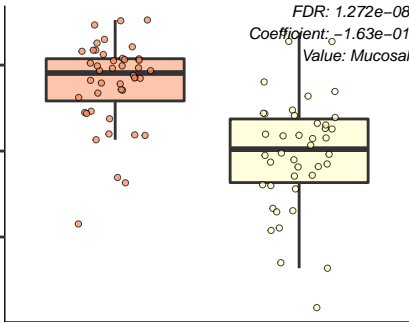
0.4
0.2
0.0

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 1.272e-08
Coefficient: -1.63e-01
Value: Mucosal



PWY.7111

Luminal (n=44)

Mucosal (n=42)

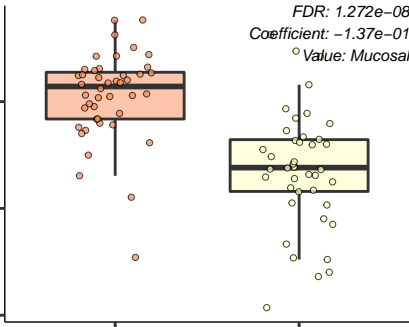
Type

FDR: 1.272e-08
Coefficient: -1.37e-01
Value: Mucosal

0.4

0.2

0.0



SER.GLYSYN.PWY

Luminal (n=44)

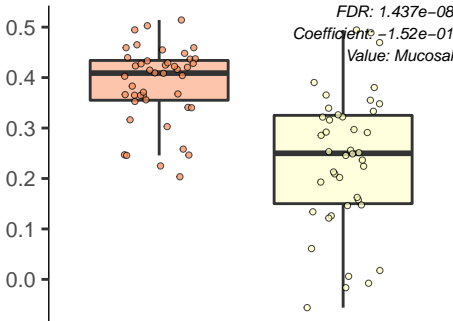
Mucosal (n=42)

Type

FDR: 1.437e-08

Coefficient: -1.52e-01

Value: Mucosal



ILEUSYN.PWY

0.4

0.2

0.0

Luminal (n=44)

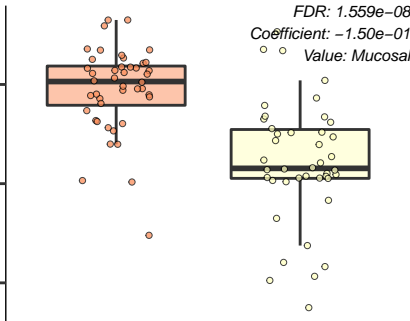
Mucosal (n=42)

Type

FDR: 1.559e-08

Coefficient: -1.50e-01

Value: Mucosal



VALSYN.PWY

0.4

0.2

0.0

Luminal (n=44)

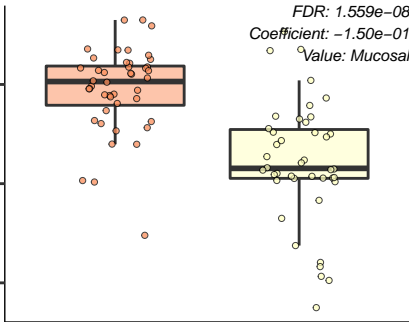
Mucosal (n=42)

Type

FDR: 1.559e-08

Coefficient: -1.50e-01

Value: Mucosal



PWY.5104

Luminal (n=44)

Mucosal (n=42)

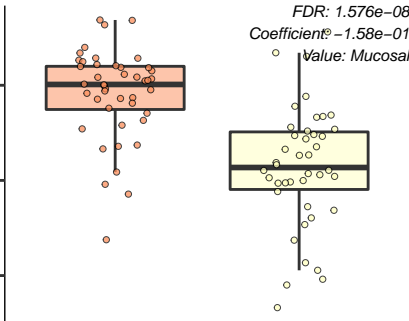
Type

FDR: 1.576×10^{-8}
Coefficient: -1.58×10^{-1}
Value: Mucosal

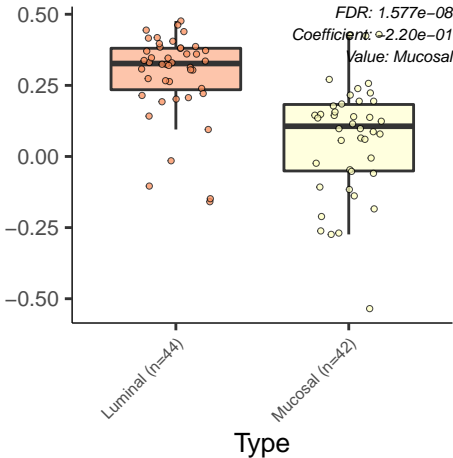
0.4

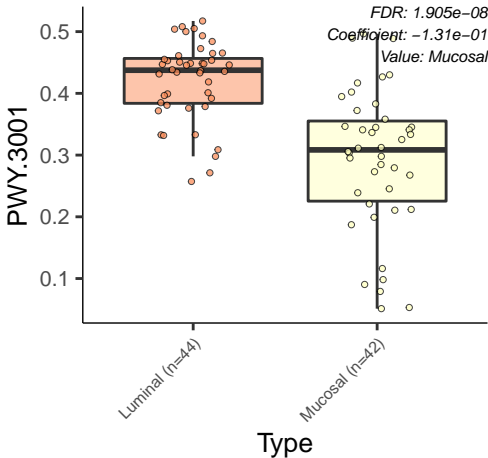
0.2

0.0



HISTSYN.PWY





TRNA.CHARGING.PWY

0.6
0.4
0.2

Luminal (n=44)

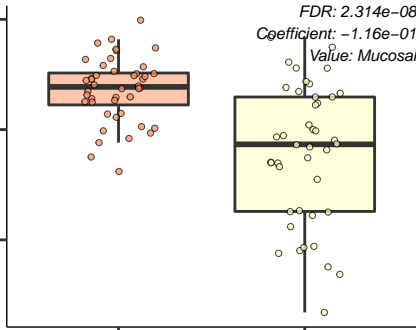
Mucosal (n=42)

Type

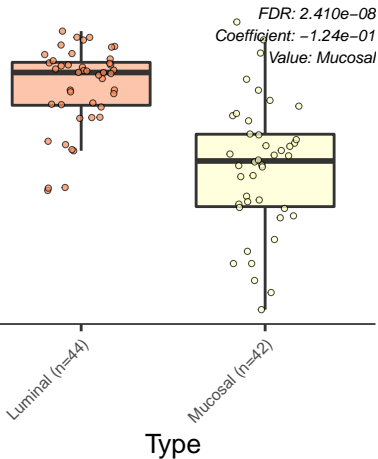
FDR: 2.314e-08

Coefficient: -1.16e-01

Value: Mucosal



NONOXIPENT.PWY



P23.PWY

FDR: 3.871e-08

Coefficient: -3.31e-01

Value: Mucosal

0.0

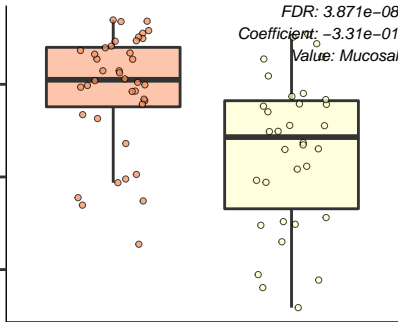
-0.5

-1.0

Luminal (n=44)

Mucosal (n=42)

Type



ANAEROFRUCAT.PWY

FDR: 5.737e-08

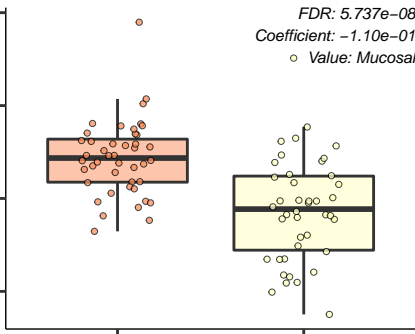
Coefficient: -1.10e-01

○ *Value: Mucosal*

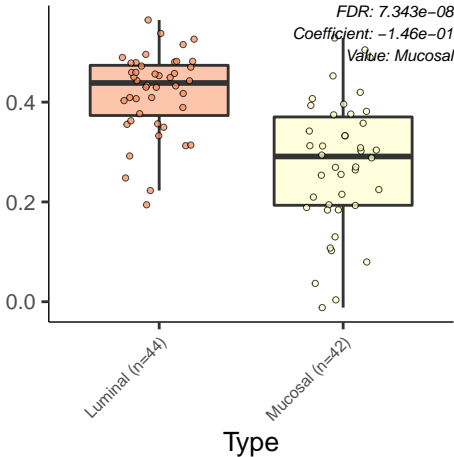
Luminal (n=44)

Mucosal (n=42)

Type



ASPASN.PWY



PWY.5121

Luminal (n=44)

Mucosal (n=42)

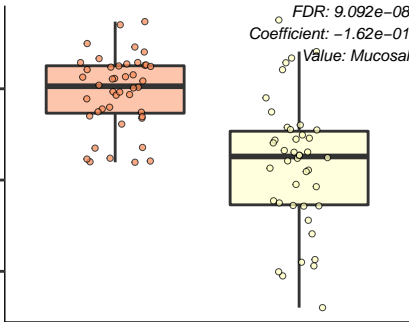
Type

FDR: $9.092e-08$
Coefficient: $-1.62e-01$
Value: Mucosal

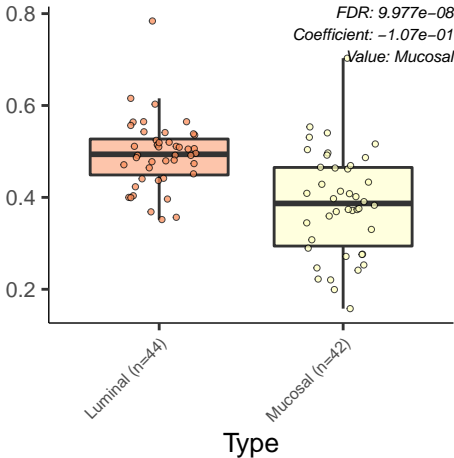
0.4

0.2

0.0



GLYCOLYSIS



NONMEVIP.PWY

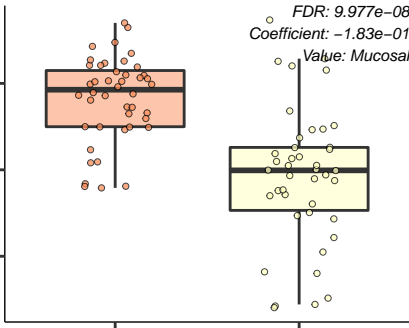
0.4
0.2
0.0

Luminal (n=44)

Mucosal (n=42)

Type

FDR: $9.977e-08$
Coefficient: $-1.83e-01$
Value: Mucosal



PWY.7560

Luminal (n=44)

Mucosal (n=42)

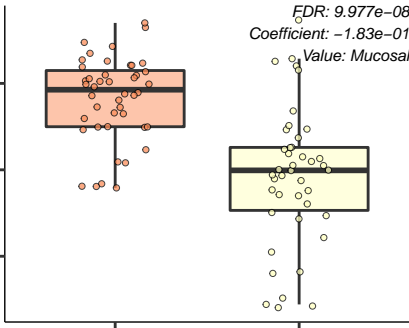
Type

FDR: $9.977e-08$
Coefficient: $-1.83e-01$
Value: Mucosal

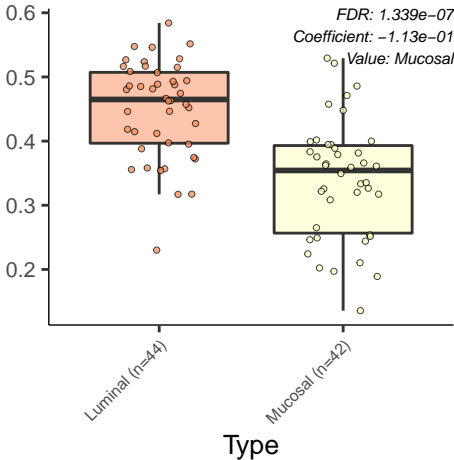
0.4

0.2

0.0



CALVIN.PWY



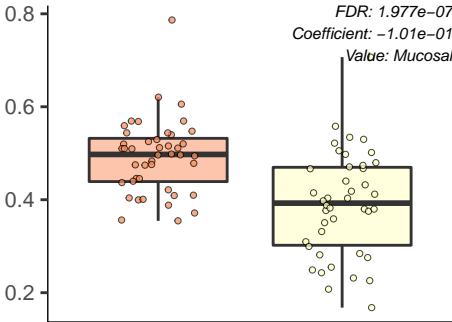
PWY.5484

Luminal (n=44)

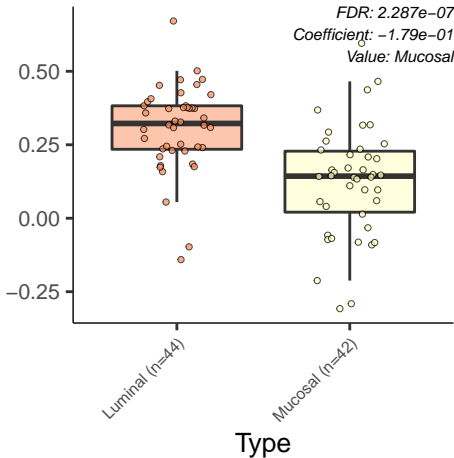
Mucosal (n=42)

Type

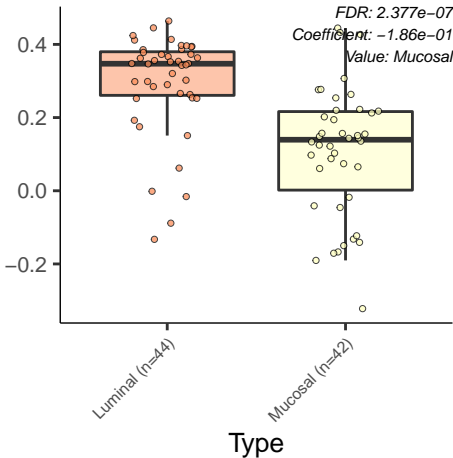
FDR: 1.977e-07
Coefficient: -1.01e-01
Value: Mucosal



PWY.6147



PYRIDNUCSYN.PWY



PWY.5188

FDR: 3.953e-07

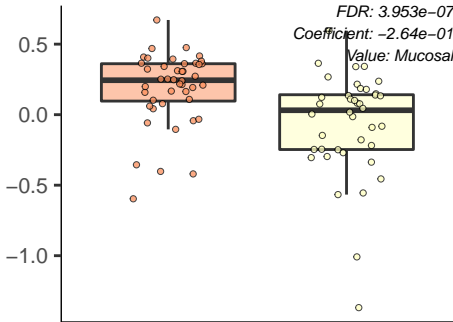
Coefficient: -2.64e-01

Value: Mucosal

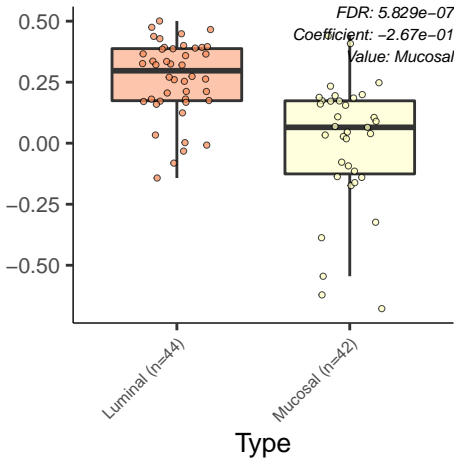
Luminal (n=44)

Mucosal (n=42)

Type



PWY.5505



COMPLETE.ARO.PWY

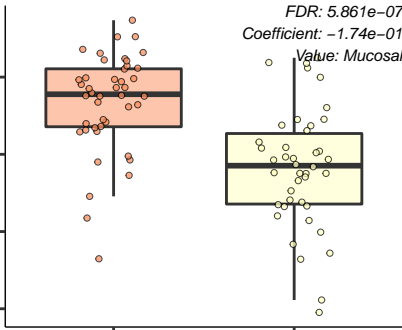
0.4
0.2
0.0
-0.2

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 5.861e-07
Coefficient: -1.74e-01
Value: Mucosal



PWY.6969

FDR: 6.930e-07

Coefficient: -2.21e-01

Value: Mucosal

0.25

0.00

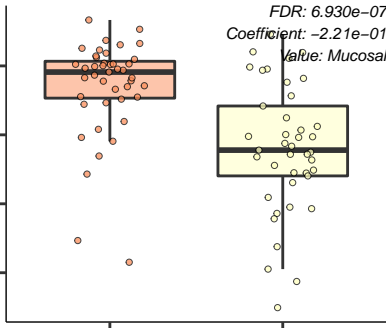
-0.25

-0.50

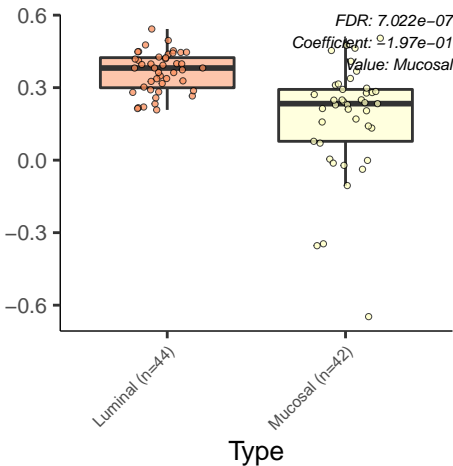
Luminal (n=44)

Mucosal (n=42)

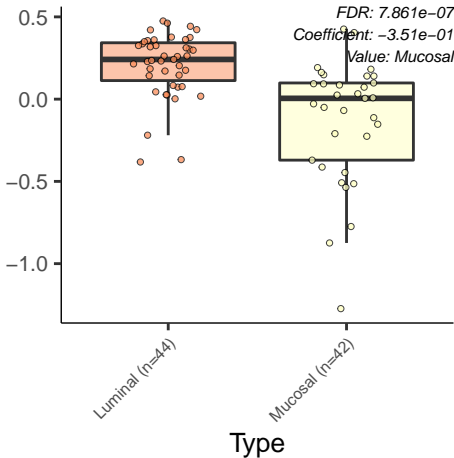
Type



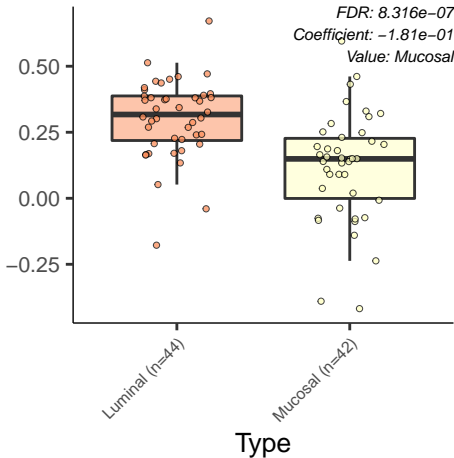
PWY.7392



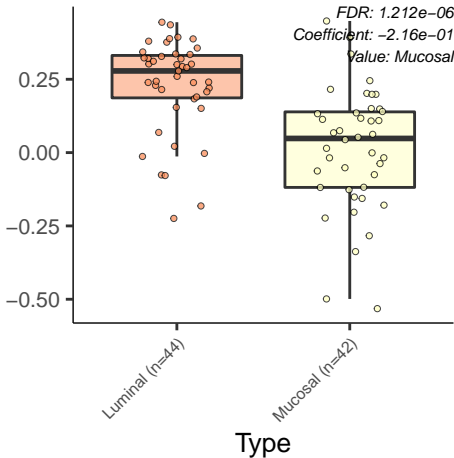
PWY.1861



PWY.7539



PWY.6897



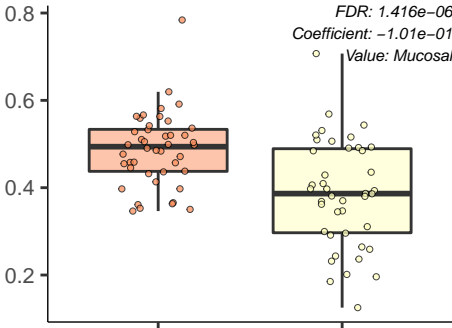
GLUCONEO.PWY

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 1.416×10^{-6}
Coefficient: -1.01×10^{-1}
Value: Mucosal



RIBOSYN2.PWY

Luminal (n=44)

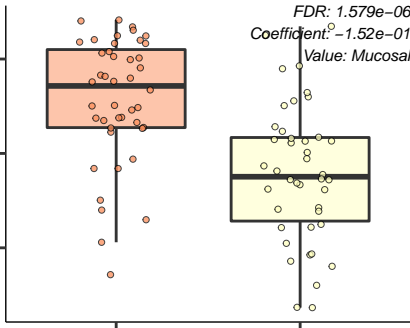
Mucosal (n=42)

Type

FDR: 1.579e-06

Coefficient: -1.52e-01

Value: Mucosal



PWY.6121

Luminal (n=44)

Mucosal (n=42)

Type

FDR: $1.794e-06$
Coefficient: $-1.08e-01$
Value: Mucosal

0.6

0.4

0.2

GLYCOGENSYNTH.PWY

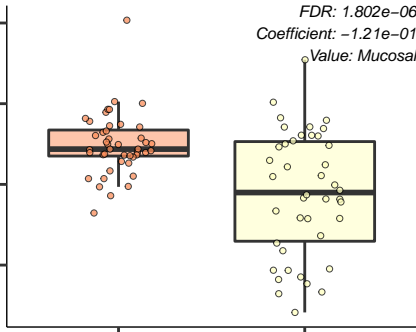
0.8
0.6
0.4
0.2

Luminal (n=44)

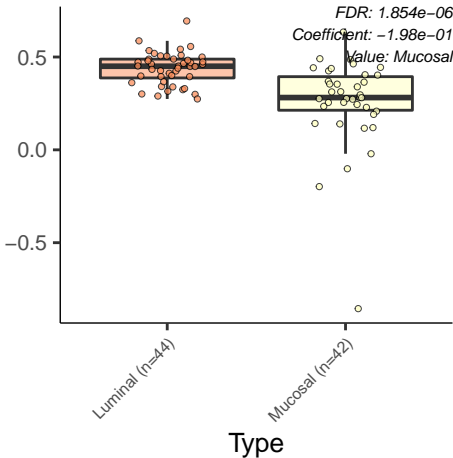
Mucosal (n=42)

Type

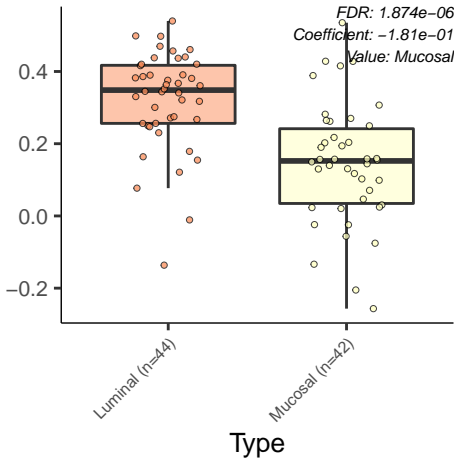
FDR: 1.802e-06
Coefficient: -1.21e-01
Value: Mucosal



DTDPRHAMSYN.PWY



ARO.PWY



PWY.5686

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 2.183e-06
Coefficient: -1.07e-01
Value: Mucosal

0.8

0.6

0.4

0.2

PWY.6122

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 2.183e-06

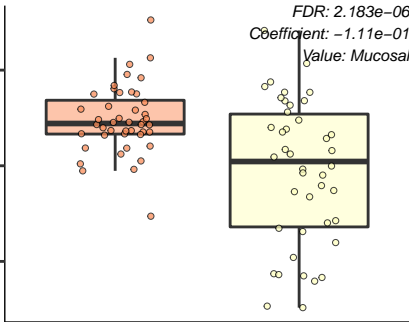
Coefficient: -1.11e-01

Value: Mucosal

0.6

0.4

0.2



PWY.6277

Luminal (n=44)

Mucosal (n=42)

Type

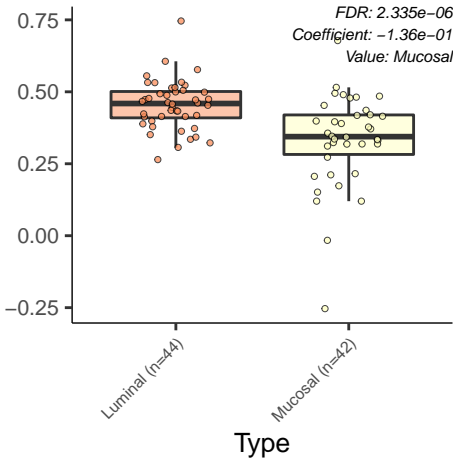
FDR: $2.183e-06$
Coefficient: $-1.11e-01$
Value: Mucosal

0.6

0.4

0.2

OANTIGEN.PWY



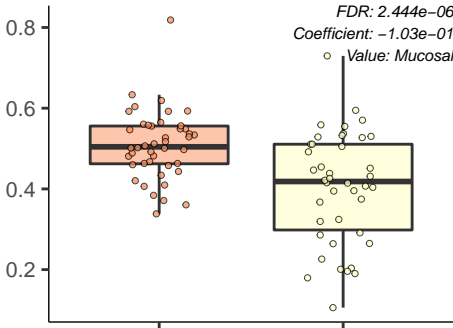
PWY.6317

Luminal (n=44)

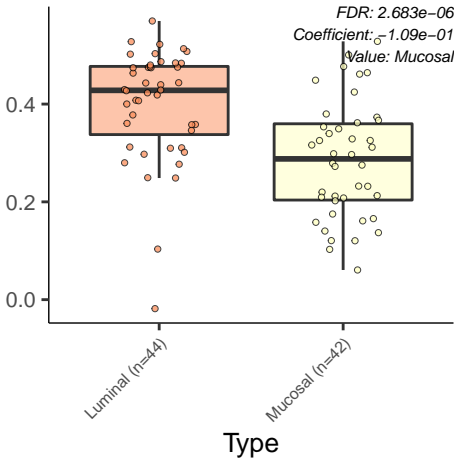
Mucosal (n=42)

Type

FDR: 2.444e-06
Coefficient: -1.03e-01
Value: Mucosal



GLYCOLYSIS.E.D



COA.PWY

0.8

0.6

0.4

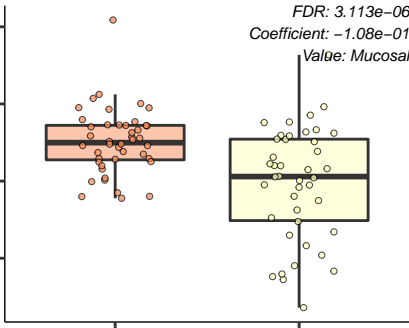
0.2

Luminal (n=44)

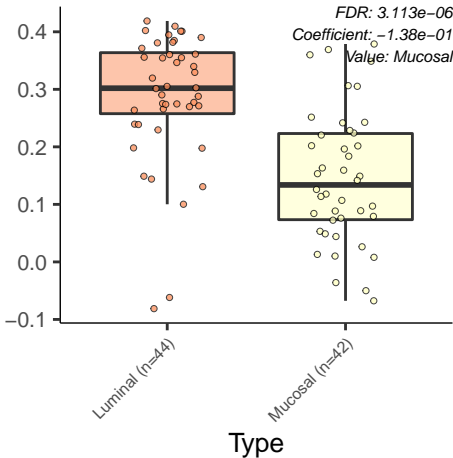
Mucosal (n=42)

Type

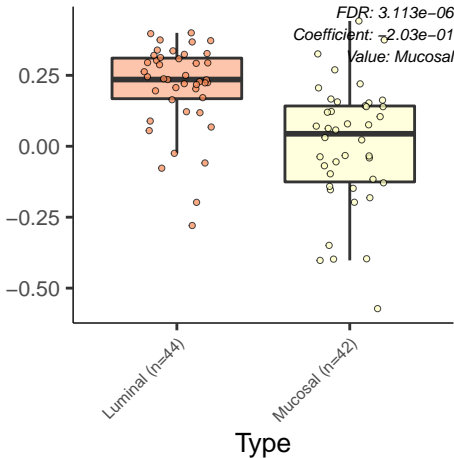
FDR: $3.113e-06$
Coefficient: $-1.08e-01$
Value: Mucosal



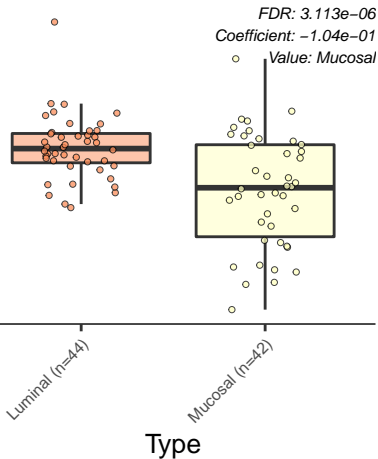
FOLSYN.PWY



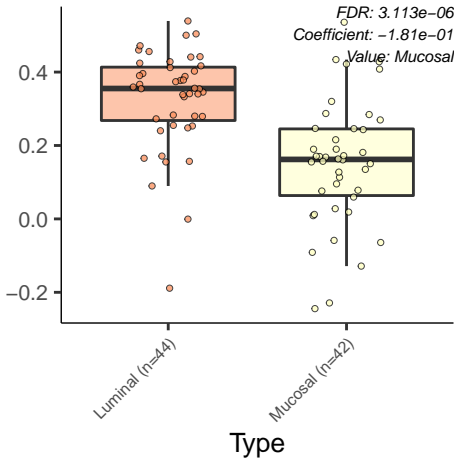
PANTO.PWY



PWY.5097



PWY.6163



THRESYN.PWY

Luminal (n=44)

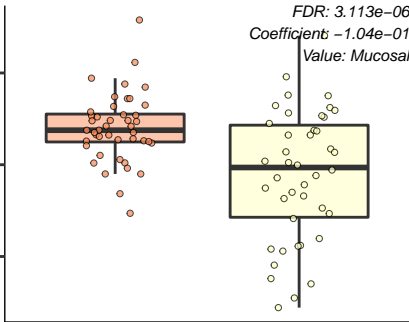
Mucosal (n=42)

Type

FDR: 3.113e-06

Coefficient: -1.04e-01

Value: Mucosal



PWY.6123

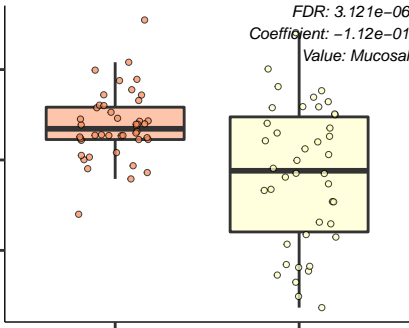
Luminal (n=44)

Mucosal (n=42)

Type

FDR: 3.121e-06
Coefficient: -1.12e-01
Value: Mucosal

0.6
0.4
0.2



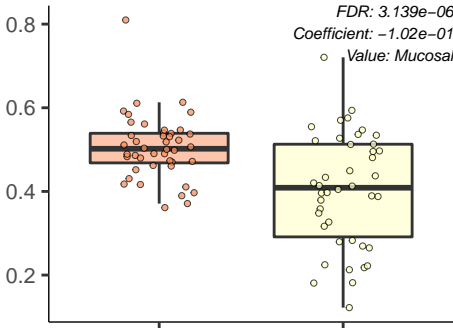
PWY.2942

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 3.139e-06
Coefficient: -1.02e-01
Value: Mucosal



ANAGLYCOLYSIS.PWY

FDR: 3.180e-06

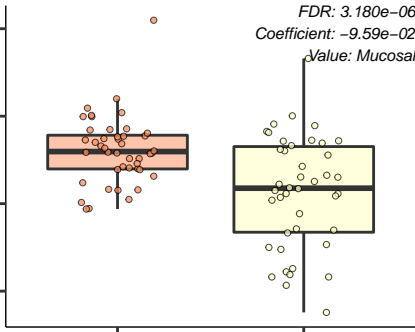
Coefficient: -9.59e-02

Value: Mucosal

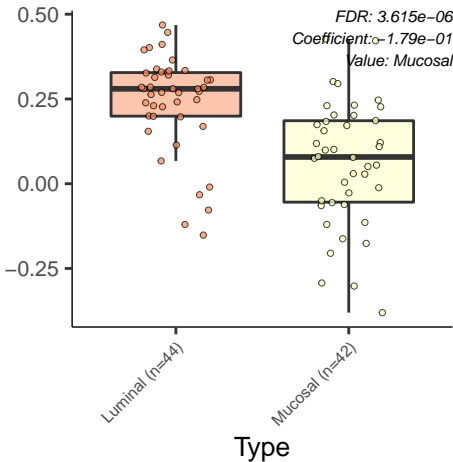
Luminal (n=44)

Mucosal (n=42)

Type



TRPSYN.PWY



PWY.6609

Luminal (n=44)

Mucosal (n=42)

Type

FDR: $3.920e-06$

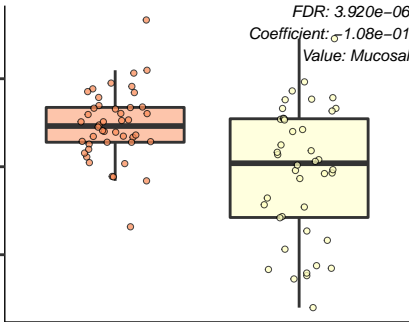
Coefficient: $1.08e-01$

Value: Mucosal

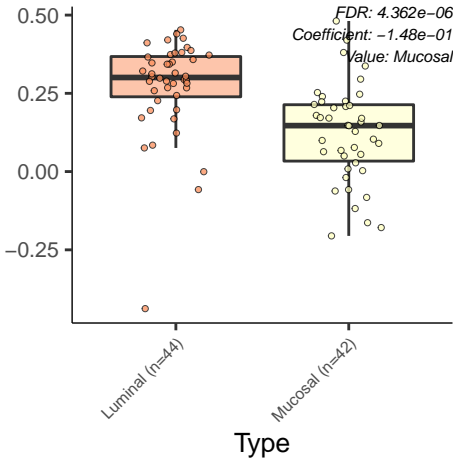
0.6

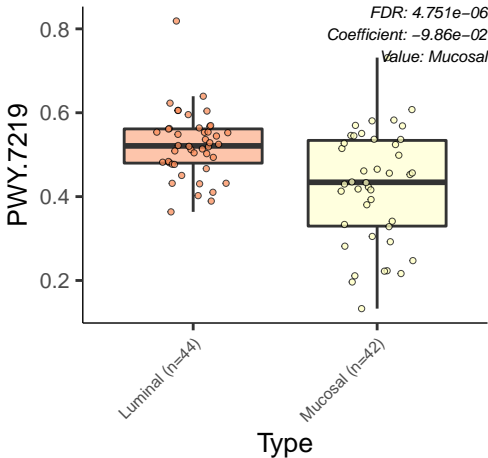
0.4

0.2



PANTOSYN.PWY





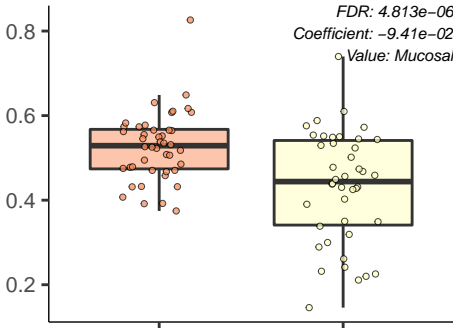
PWY.6126

Luminal (n=44)

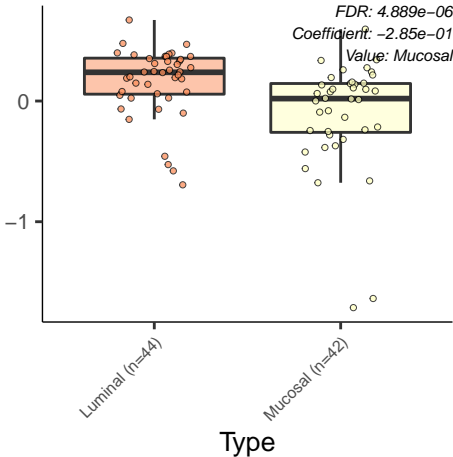
Mucosal (n=42)

Type

FDR: $4.813e-06$
Coefficient: $-9.41e-02$
Value: Mucosal



PWY.5189



PWY.5695

FDR: 4.889e-06

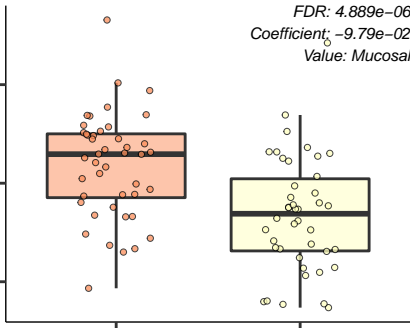
Coefficient: -9.79e-02

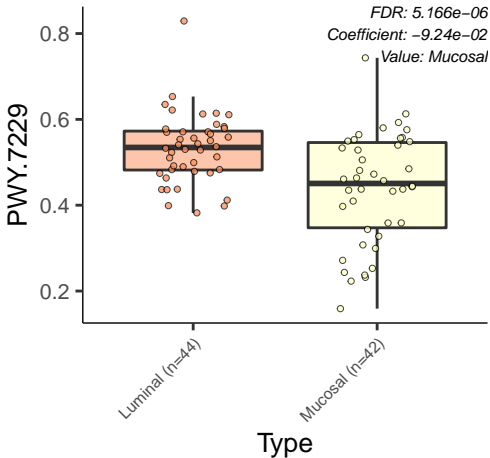
Value: Mucosal

Luminal (n=44)

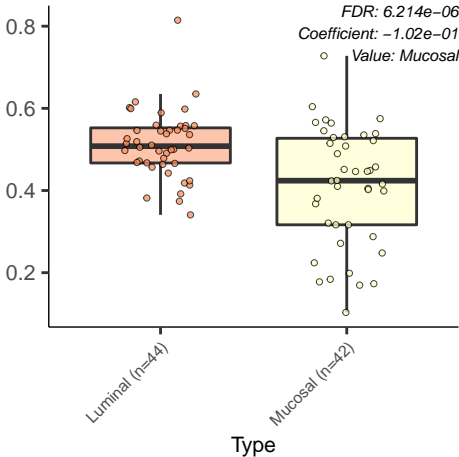
Mucosal (n=42)

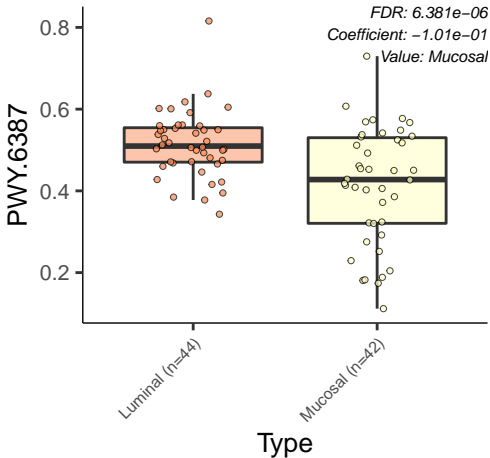
Type





PEPTIDOGLYCANSYN.PWY





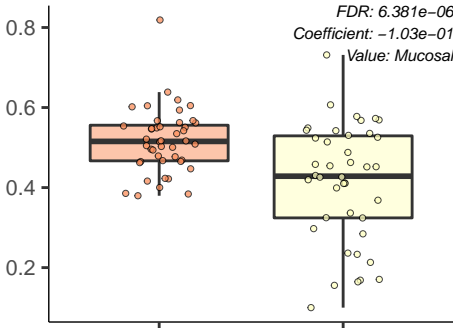
PWY.7221

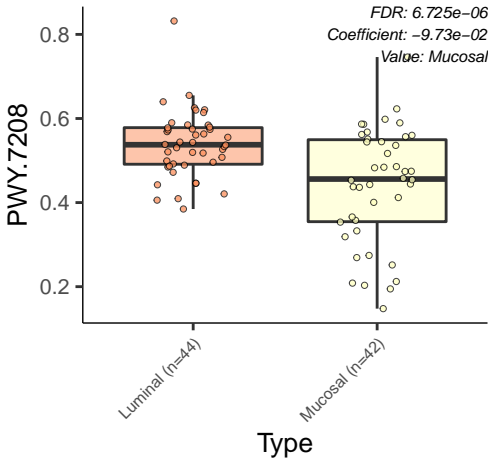
Luminal (n=44)

Mucosal (n=42)

Type

FDR: $6.381e-06$
Coefficient: $-1.03e-01$
Value: Mucosal





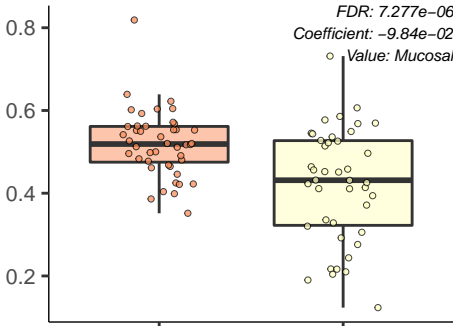
PWY.5667

Luminal (n=44)

Mucosal (n=42)

Type

FDR: $7.277\text{e-}06$
Coefficient: $-9.84\text{e-}02$
Value: Mucosal



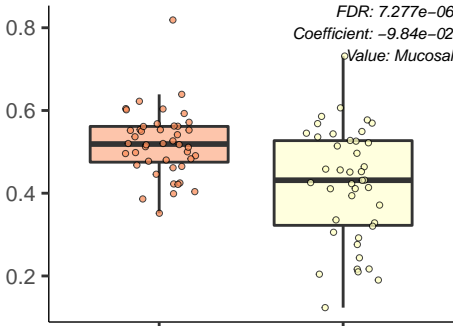
PWY0.1319

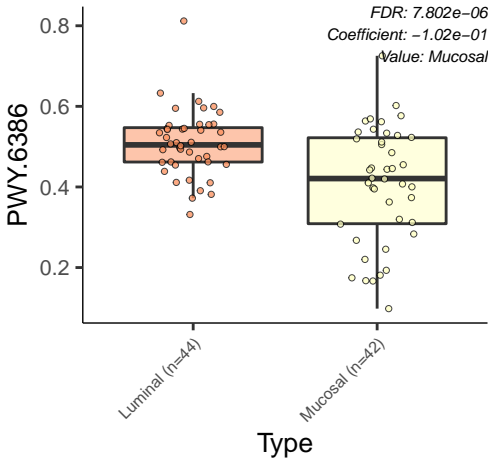
Luminal (n=44)

Mucosal (n=42)

Type

FDR: $7.277e-06$
Coefficient: $-9.84e-02$
Value: Mucosal





PWY.6151

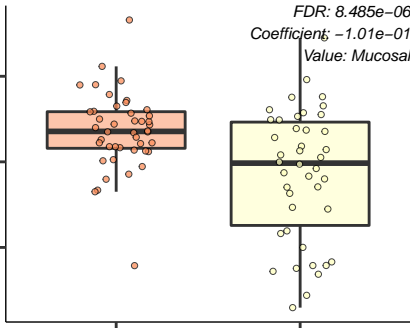
Luminal (n=44)

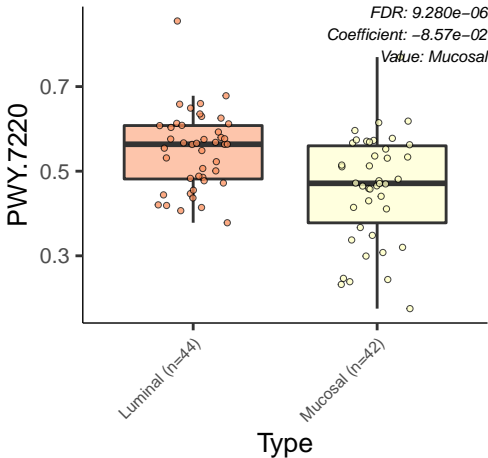
Mucosal (n=42)

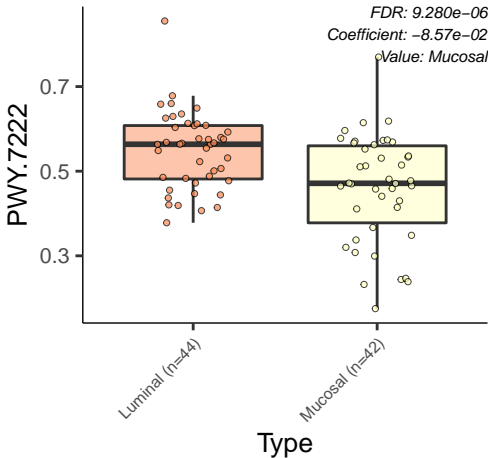
Type

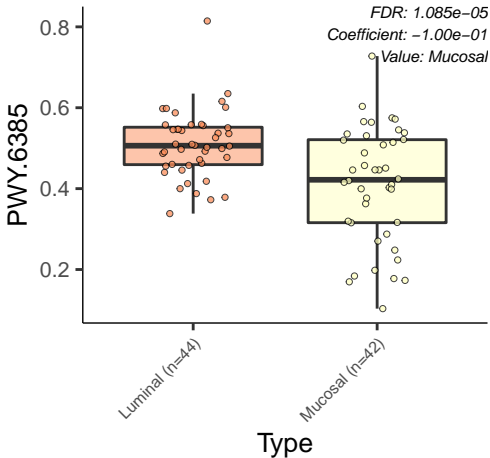
FDR: 8.485e-06
Coefficient: -1.01e-01
Value: Mucosal

0.6
0.4
0.2

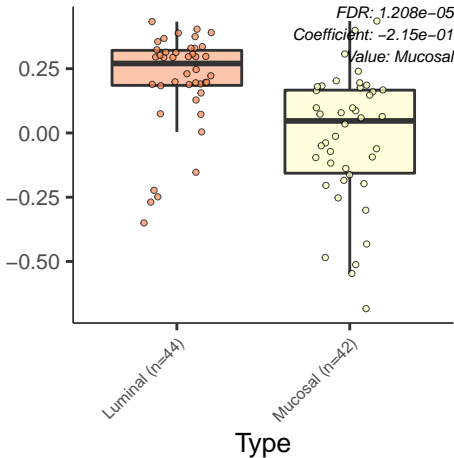


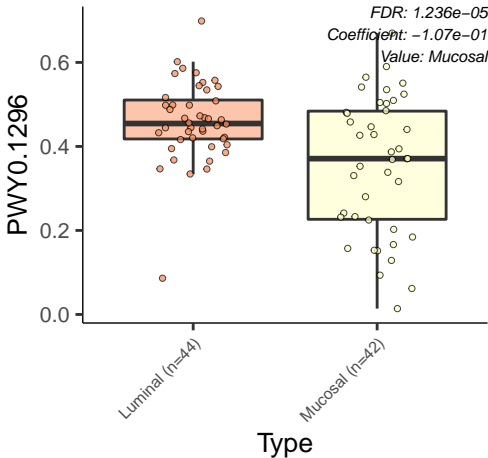




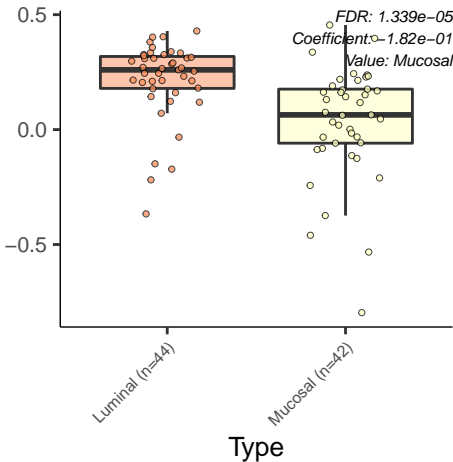


PWY.6892





COLANSYN.PWY



FERMENTATION.PWY

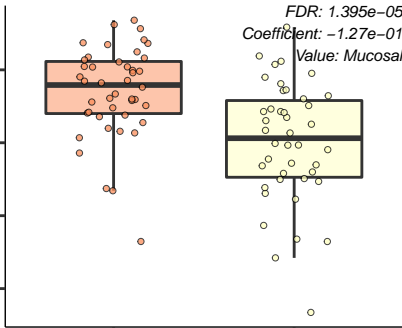
0.4
0.2
0.0
-0.2

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 1.395e-05
Coefficient: -1.27e-01
Value: Mucosal



PHOSLIPSYN.PWY

FDR: 1.542e-05

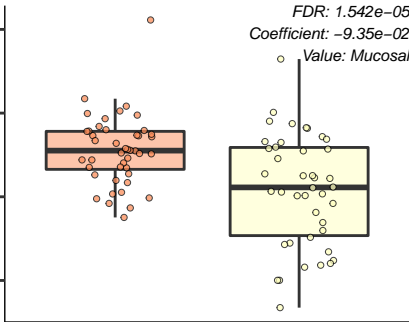
Coefficient: -9.35e-02

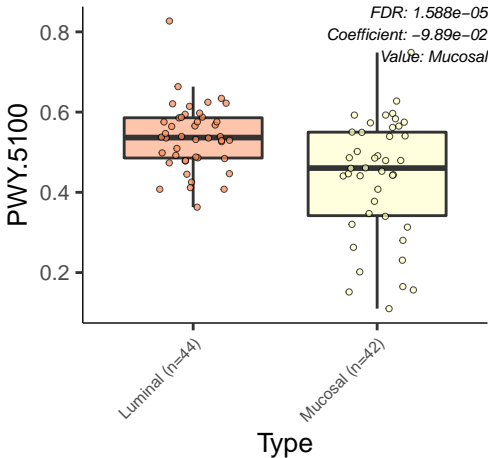
Value: Mucosal

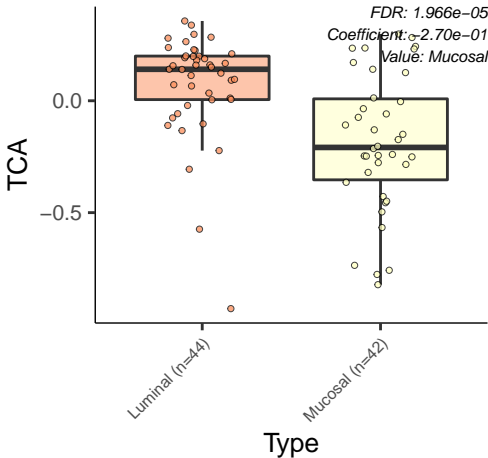
Luminal (n=44)

Mucosal (n=42)

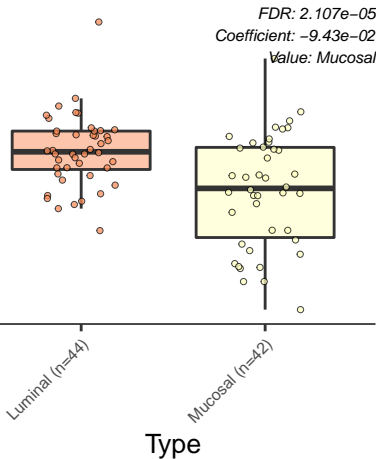
Type







PWY4FS.7



PWY4FS.8

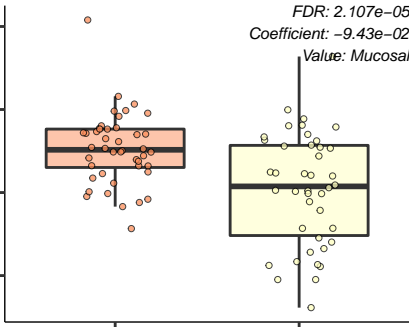
0.8
0.6
0.4
0.2

Luminal (n=44)

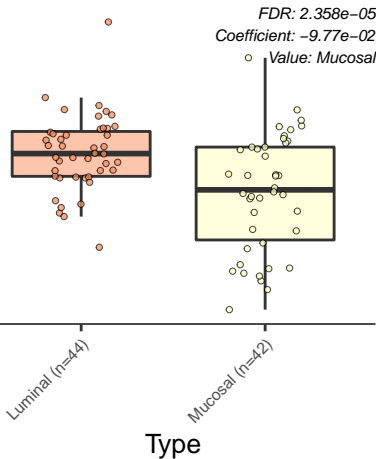
Mucosal (n=42)

Type

FDR: $2.107e-05$
Coefficient: $-9.43e-02$
Value: Mucosal



UDPNAGSYN.PWY



PWY.7234

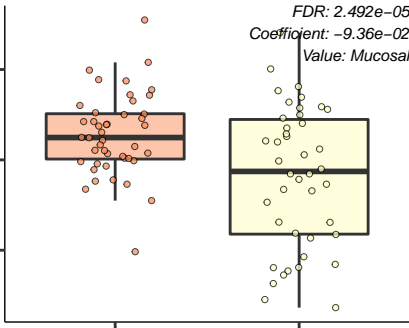
0.6
0.4
0.2

Luminal (n=44)

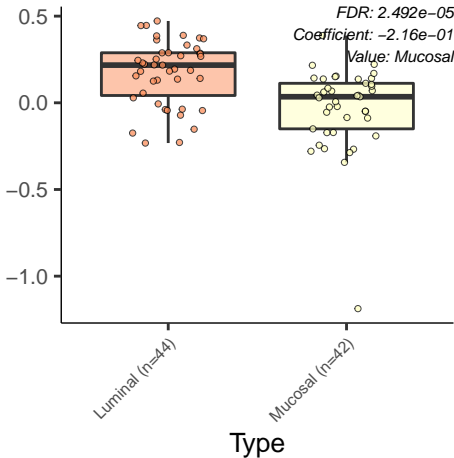
Mucosal (n=42)

Type

FDR: $2.492e-05$
Coefficient: $-9.36e-02$
Value: Mucosal



PYRIDNUCSAL.PWY



PWY.7663

Luminal (n=44)

Mucosal (n=42)

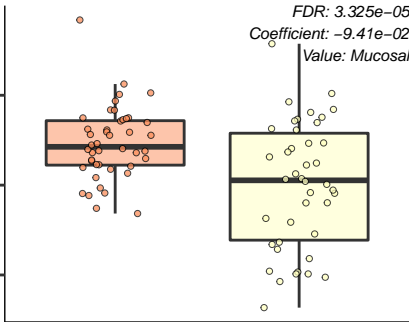
Type

FDR: $3.325e-05$
Coefficient: $-9.41e-02$
Value: Mucosal

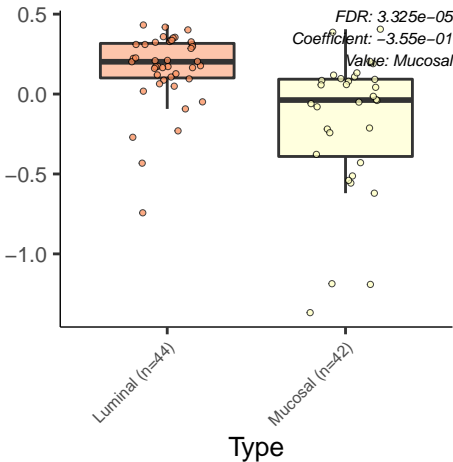
0.6

0.4

0.2



RUMP.PWY



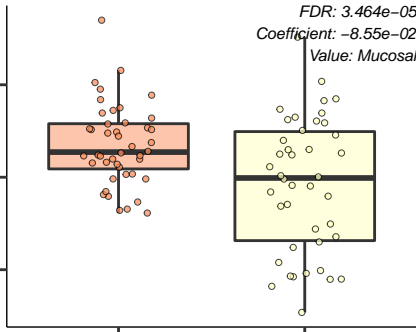
DENOVOPURINE2.PWY

Luminal (n=44)

Mucosal (n=42)

Type

FDR: $3.464e-05$
Coefficient: $-8.55e-02$
Value: Mucosal



PWY.5973

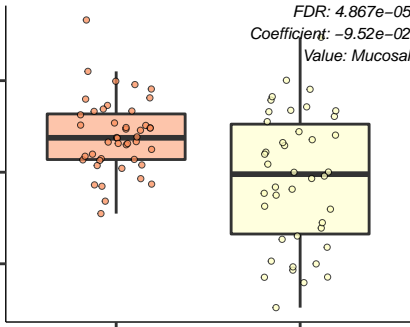
Luminal (n=44)

Mucosal (n=42)

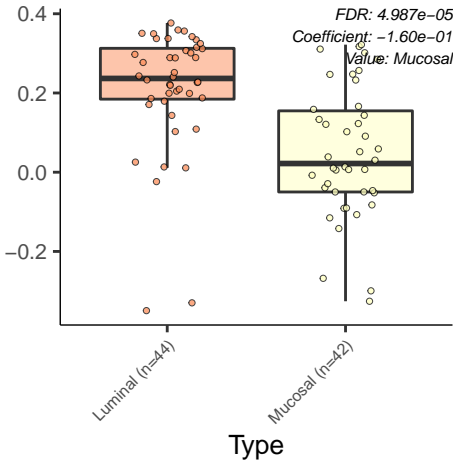
Type

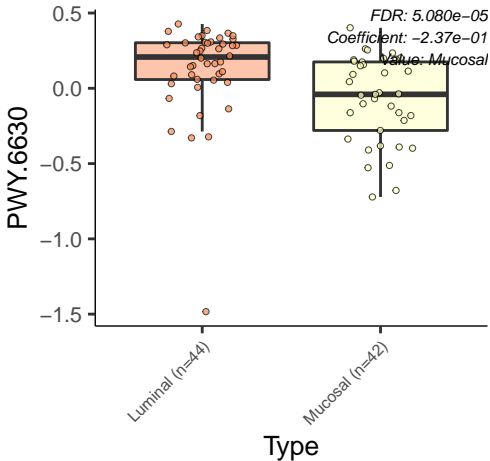
FDR: $4.867e-05$
Coefficient: $-9.52e-02$
Value: Mucosal

0.6
0.4
0.2

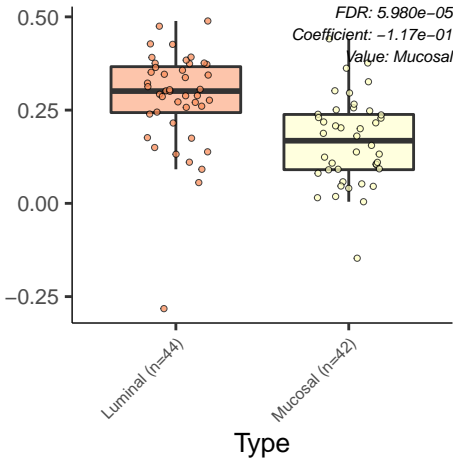


PWY.6612





PENTOSE.P.PWY



PWY.841

Luminal (n=44)

Mucosal (n=42)

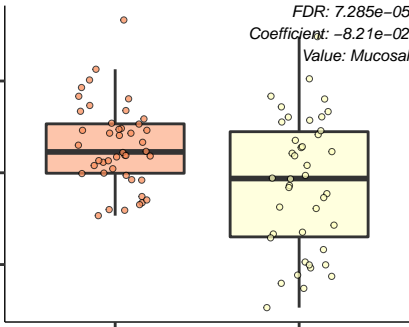
Type

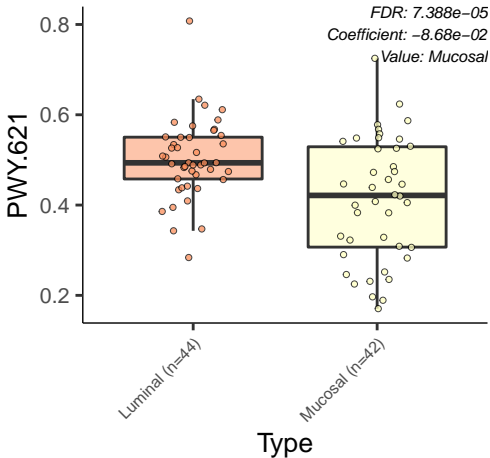
FDR: $7.285e-05$
Coefficient: $-8.21e-02$
Value: Mucosal

0.6

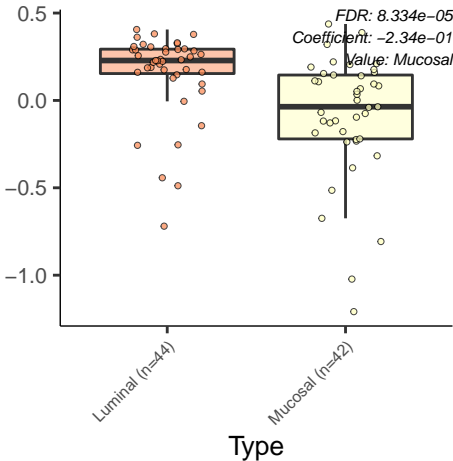
0.4

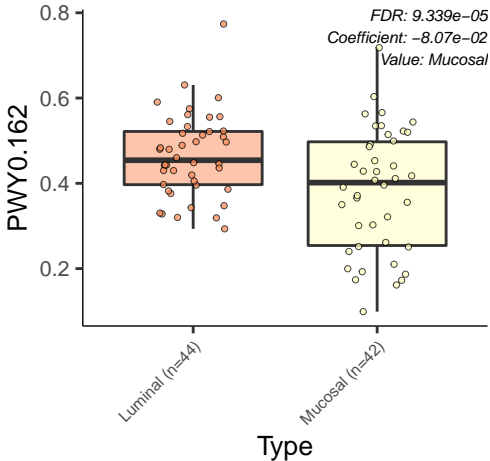
0.2

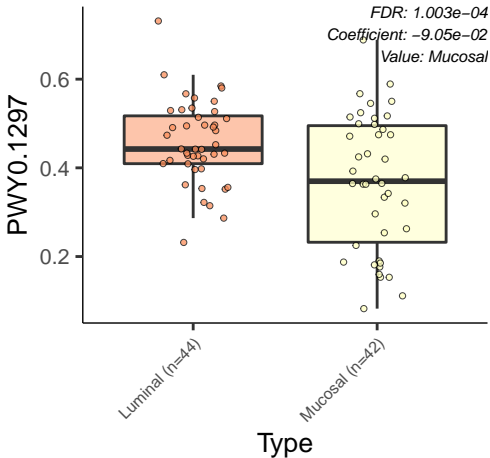


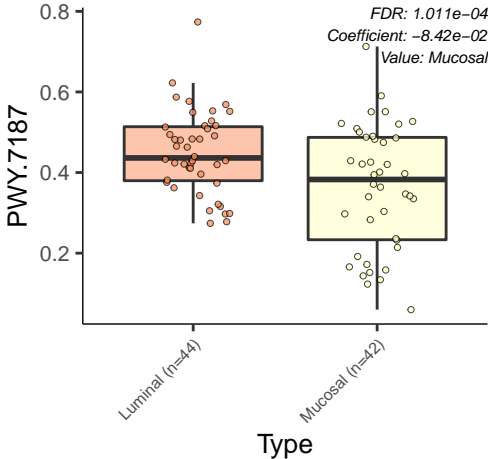


THISYN.PWY

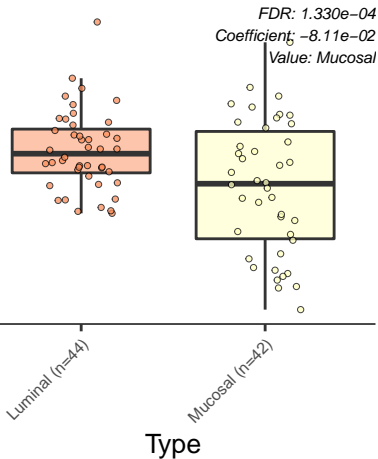




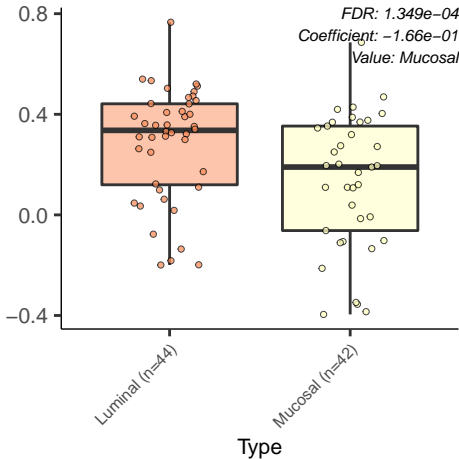


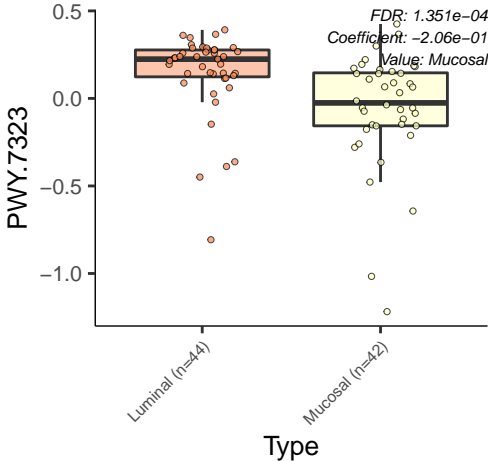


FASYN.ELONG.PWY

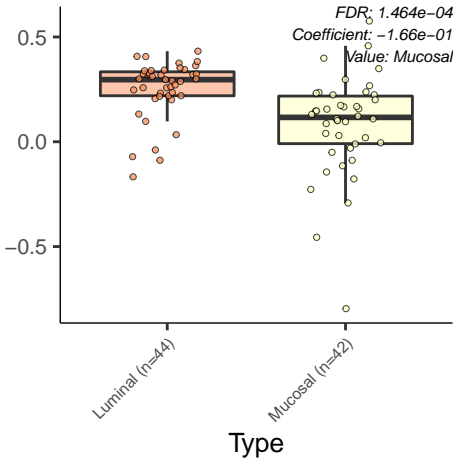


TEICHOICACID.PWY

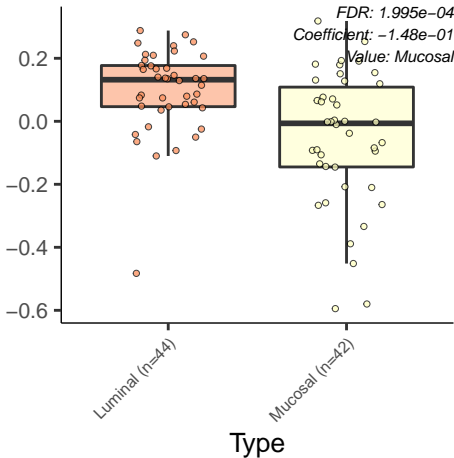


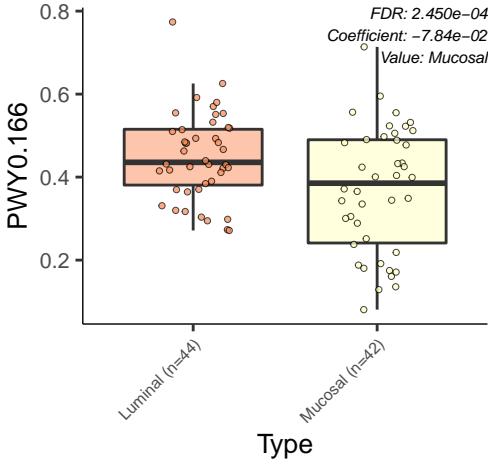


PWY.5659



P4.PWY





POLYISOPRENSYN.PWY

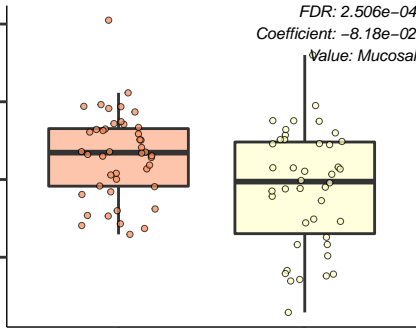
0.8
0.6
0.4
0.2

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 2.506e-04
Coefficient: -8.18e-02
Value: Mucosal



PWY0.1298

Luminal (n=44)

Mucosal (n=42)

Type

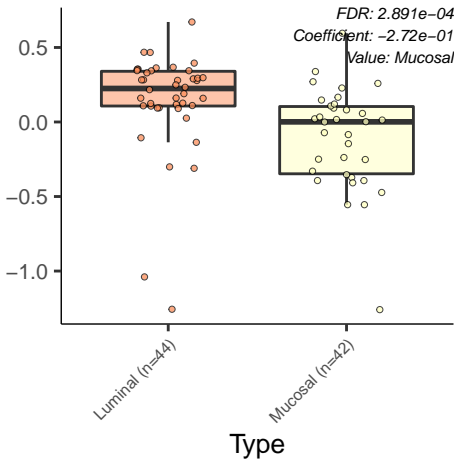
FDR: 2.650e-04
Coefficient: -8.83e-02
Value: Mucosal

0.6

0.4

0.2

PWY.6269



PWY.7003

FDR: 3.159e-04

Coefficient: -4.49e-01

Value: Mucosal

0.0

-0.4

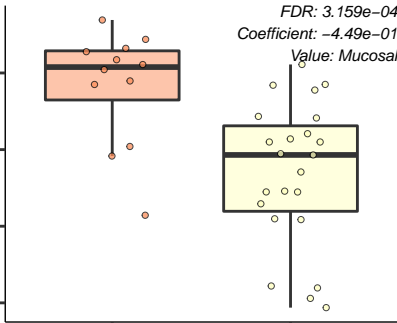
-0.8

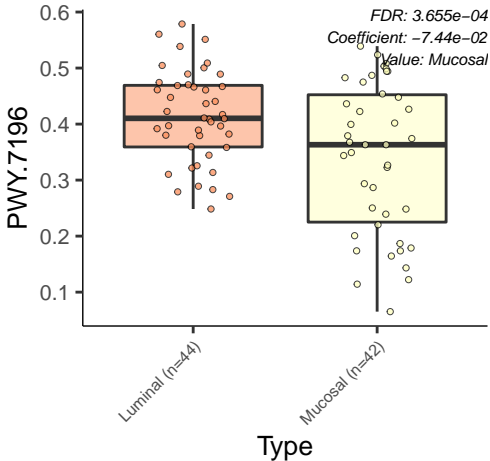
-1.2

Luminal (n=44)

Mucosal (n=42)

Type





PRPP.PWY

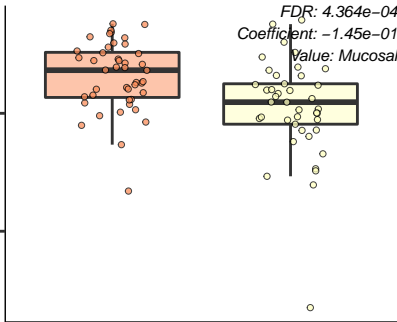
0.0
-0.5

Luminal (n=44)

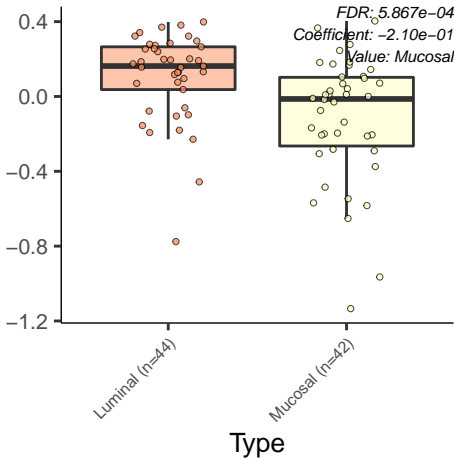
Mucosal (n=42)

Type

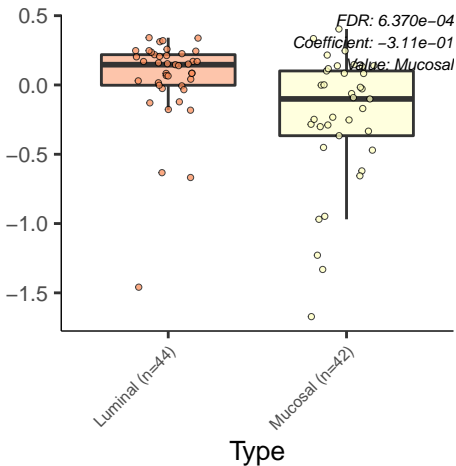
FDR: 4.364e-04
Coefficient: -1.45e-01
Value: Mucosal



GLUCUROCAT.PWY



NAGLIPASYN.PWY



PWY.6125

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 8.076e-04
Coefficient: -7.03e-02
Value: Mucosal

0.6

0.4

0.2

PWY.5509

FDR: 9.080e-04

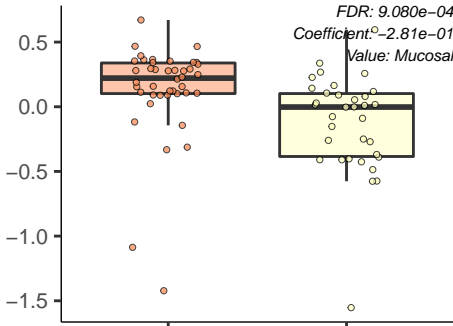
Coefficient: -2.81e-01

Value: Mucosal

Luminal (n=44)

Mucosal (n=42)

Type



PWY.6545

Luminal (n=44)

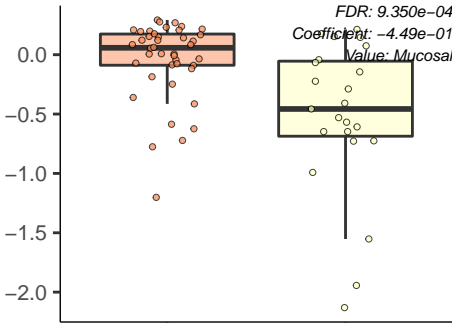
Mucosal (n=42)

Type

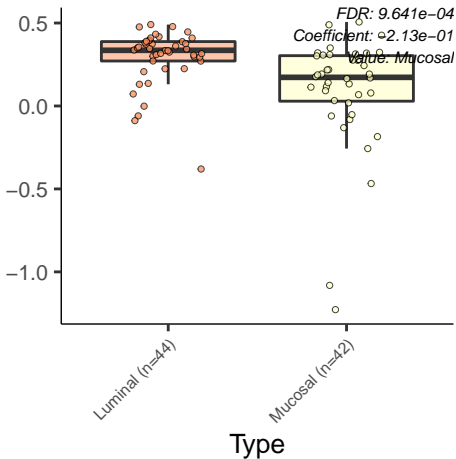
FDR: 9.350×10^{-4}

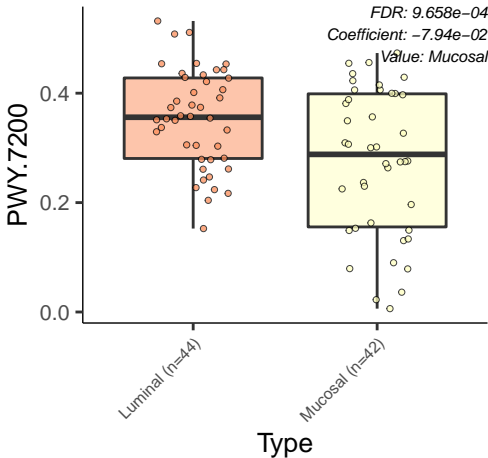
Coefficient: -4.49×10^{-1}

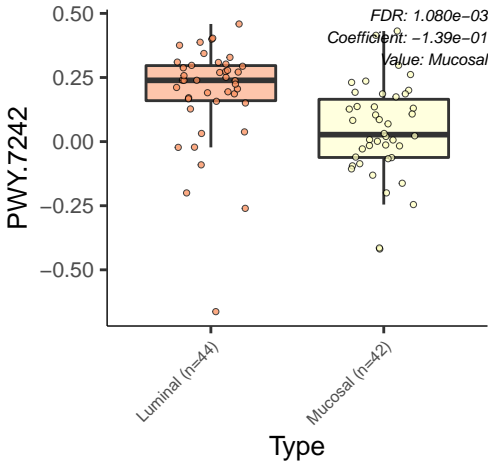
Value: Mucosal



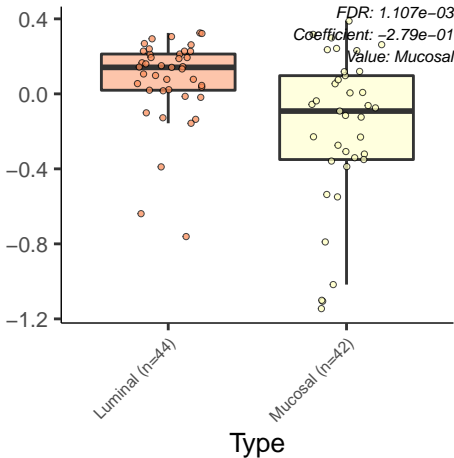
P42.PWY



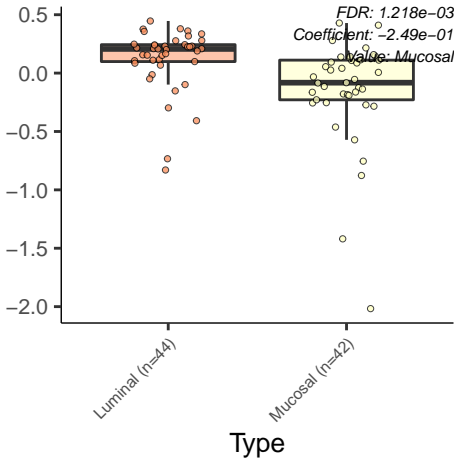




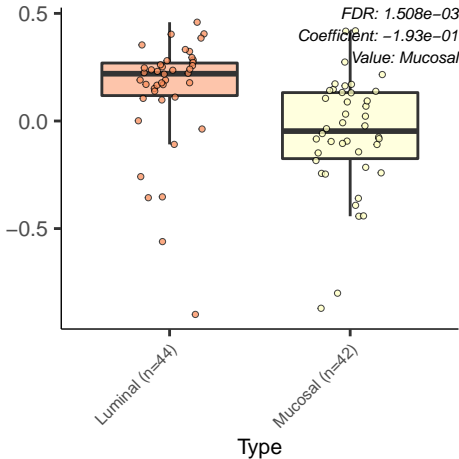
PWY.1269



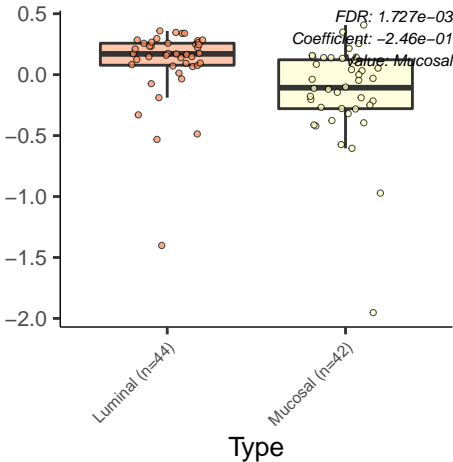
PWY.6507



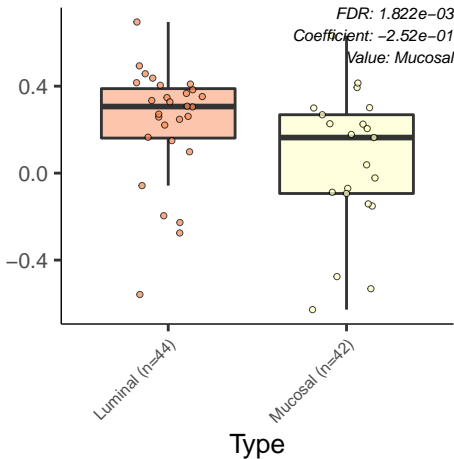
GALACTUROCAT.PWY



PWY.6703



PWY.4984



PWY.5154

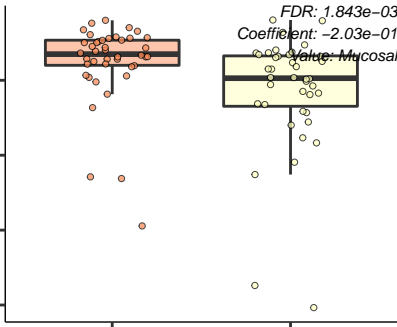
0.0
-0.5
-1.0
-1.5

Luminal (n=44)

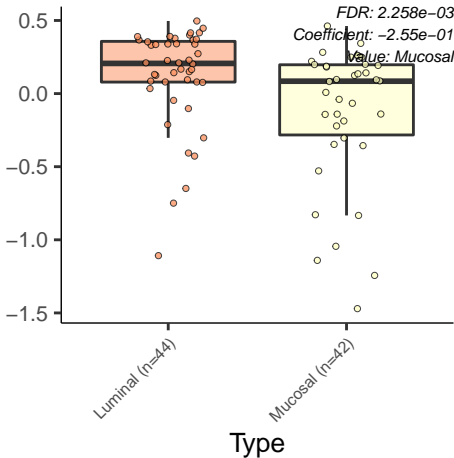
Mucosal (n=42)

Type

FDR: $1.843e-03$
Coefficient: $-2.03e-01$
Value: Mucosal



PWY.5913



PWY.5910

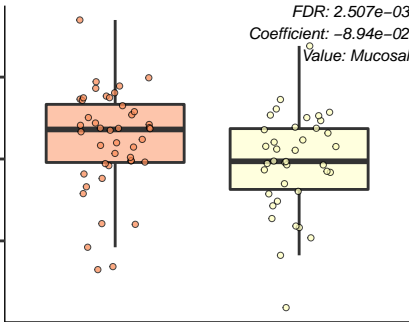
Luminal (n=44)

Mucosal (n=42)

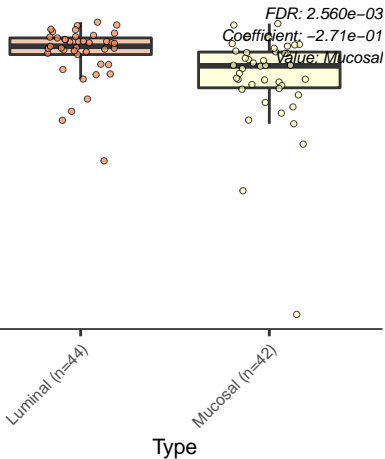
Type

FDR: 2.507e-03
Coefficient: -8.94e-02
Value: Mucosal

0.6
0.3
0.0



GALACT.GLUCUROCAT.PWY



PWY.7228

Luminal (n=44)

Mucosal (n=42)

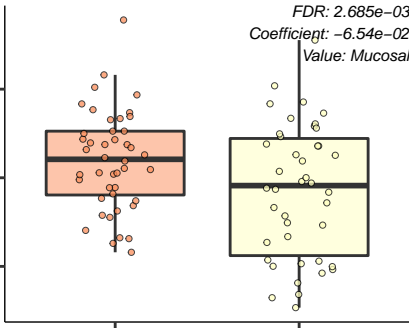
Type

FDR: 2.685e-03
Coefficient: -6.54e-02
Value: Mucosal

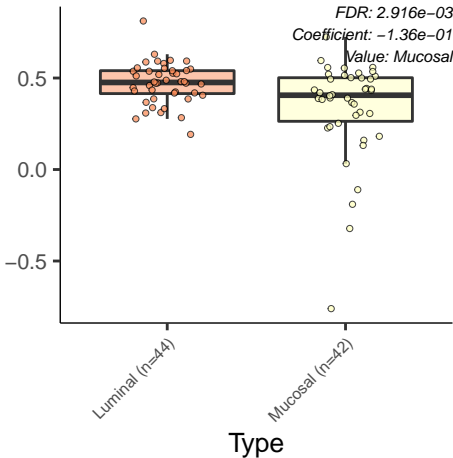
0.6

0.4

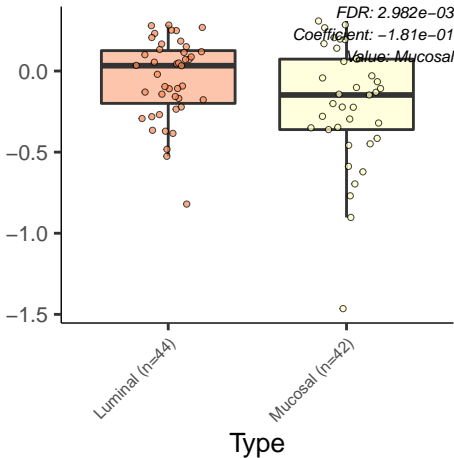
0.2



PWY.6471



PWY.7211



GLCMANNAUT.PWY

0.8

0.6

0.4

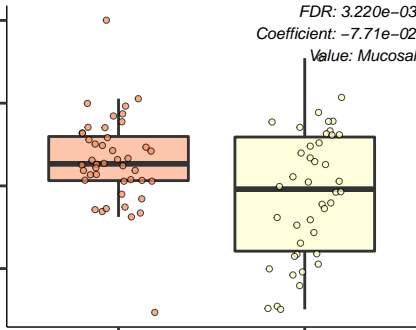
0.2

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 3.220e-03
Coefficient: -7.71e-02
Value: Mucosal



PWY.7328

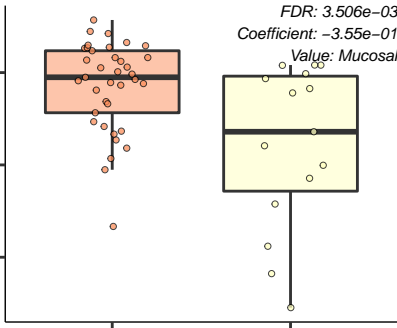
0.0
-0.5
-1.0

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 3.506e-03
Coefficient: -3.55e-01
Value: Mucosal



PWY.2941

Luminal (n=44)

Mucosal (n=42)

Type

FDR: 5.235e-03

Coefficient: -1.53e-01

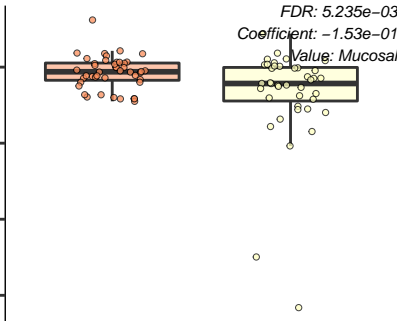
Value: Mucosal

0.5

0.0

-0.5

-1.0



COBALSYN.PWY

FDR: 5.295e-03

Coefficient: -2.01e-01

Value: Mucosal

0

-1

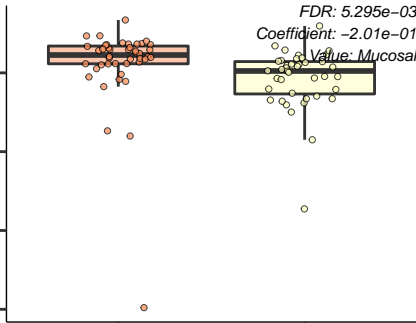
-2

-3

Luminal (n=44)

Mucosal (n=42)

Type



PWY490.3

0.0
-0.5
-1.0
-1.5

Luminal (n=44)

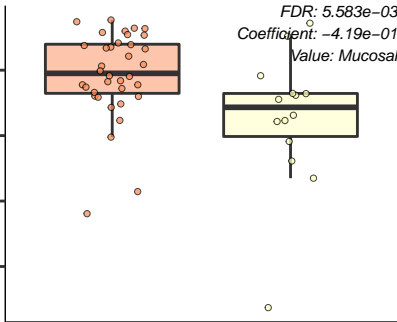
Mucosal (n=42)

Type

FDR: 5.583e-03

Coefficient: -4.19e-01

Value: Mucosal



PWY0.1261

FDR: 5.701e-03

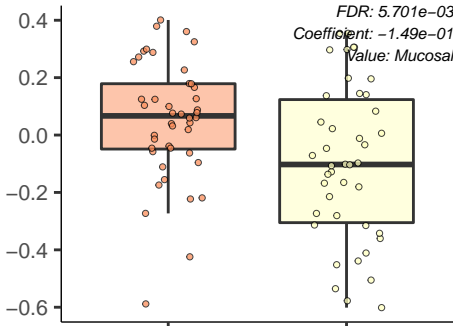
Coefficient: -1.49e-01

Value: Mucosal

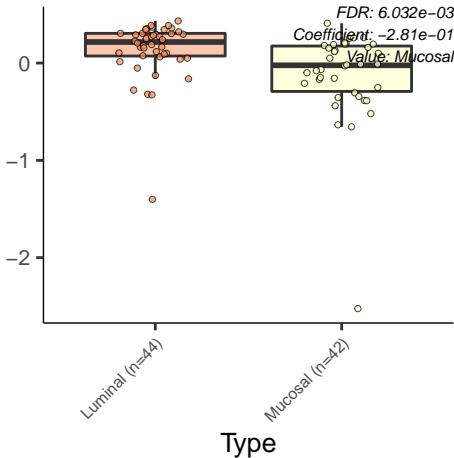
Luminal (n=44)

Mucosal (n=42)

Type



PWY.6628



PWY.7197

FDR: 6.638e-03

Coefficient: -6.82e-02

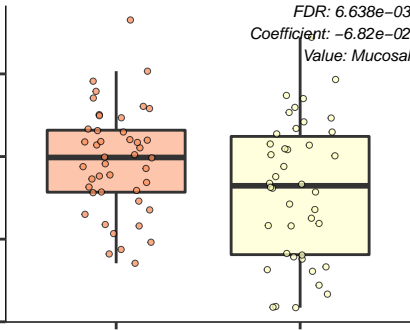
Value: Mucosal

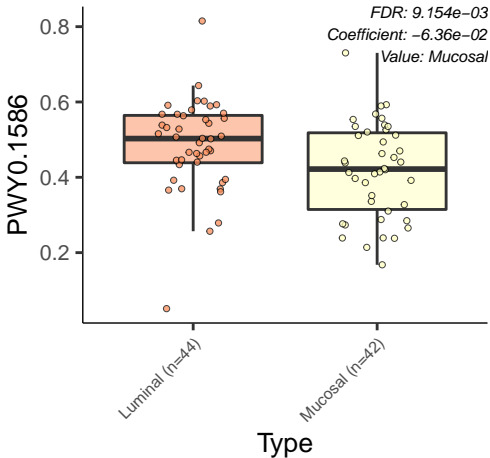
Luminal (n=44)

Mucosal (n=42)

Type

0.6
0.4
0.2
0.0





P108.PWY

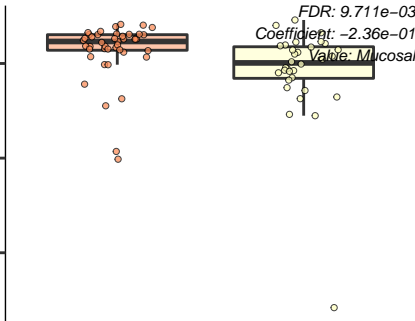
0
-1
-2

Luminal (n=44)

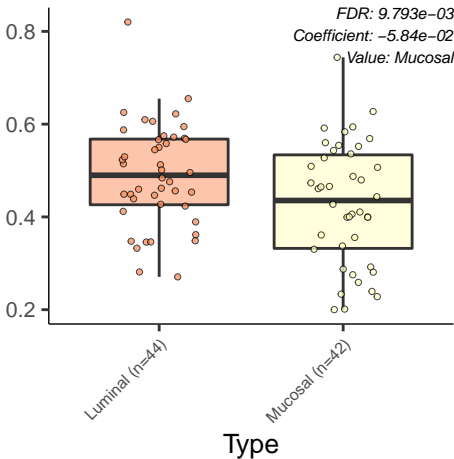
Mucosal (n=42)

Type

FDR: $9.711e-03$
Coefficient: $-2.36e-01$
Value: Mucosal



P161.PWY



PWY.6467

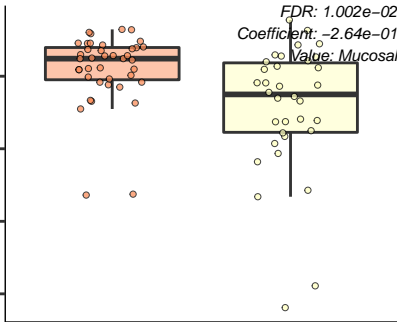
0.0
-0.5
-1.0
-1.5

Luminal (n=44)

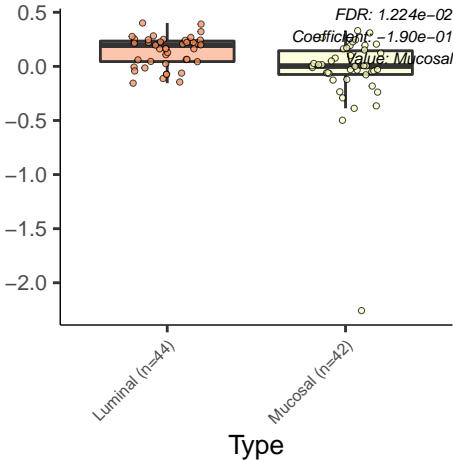
Mucosal (n=42)

Type

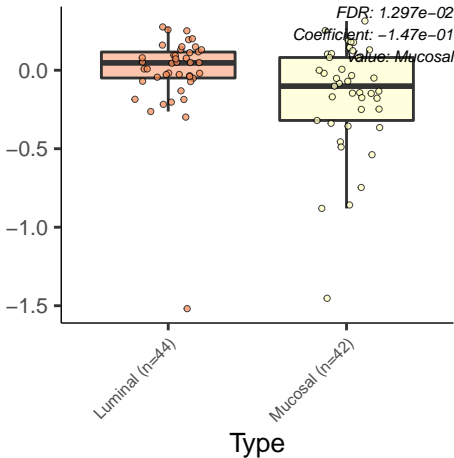
FDR: $1.002e-02$
Coefficient: $-2.64e-01$
Value: Mucosal



HEMESYN2.PWY



PWY0.781



PWY.3781

Luminal (n=44)

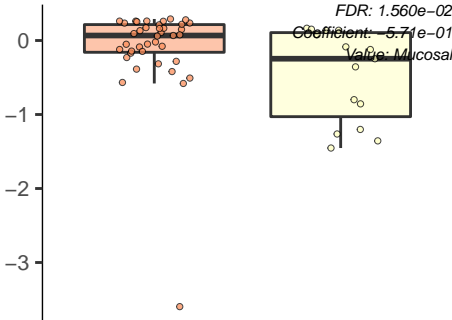
Mucosal (n=42)

Type

FDR: 1.560e-02

Coefficient: -5.71e-01

Value: Mucosal



PWY.7184

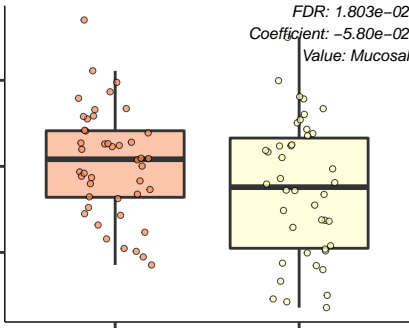
0.6
0.4
0.2

Luminal (n=44)

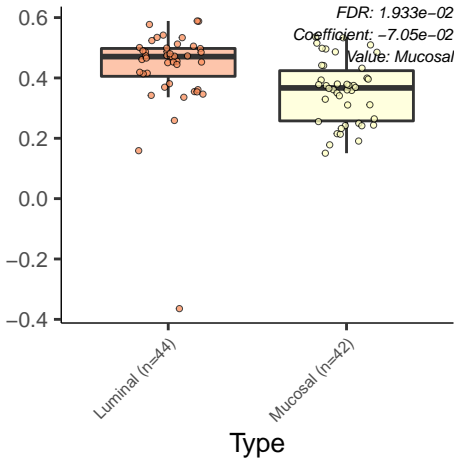
Mucosal (n=42)

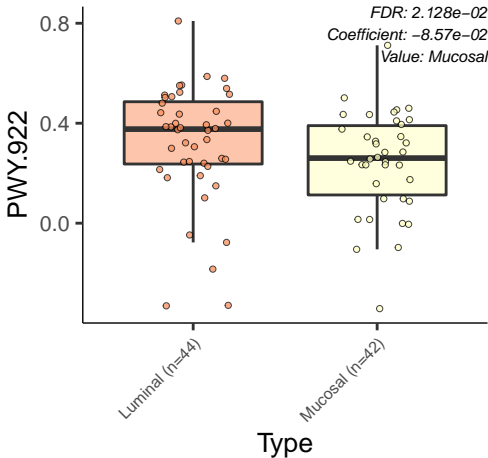
Type

FDR: 1.803e-02
Coefficient: -5.80e-02
Value: Mucosal

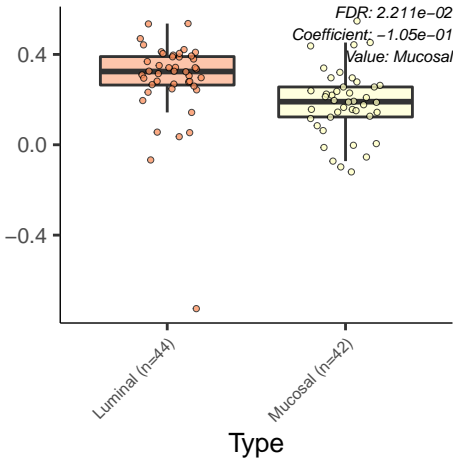


P441.PWY





PWY.7199



P124.PWY

FDR: 2.409e-02

Coefficient: -1.47e-01

Value: Mucosal

0.5

0.0

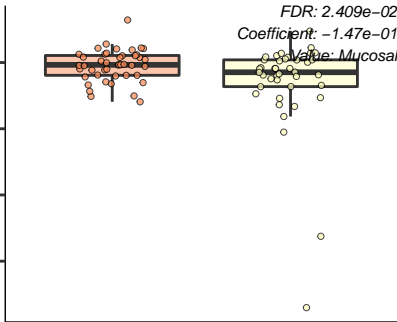
-0.5

-1.0

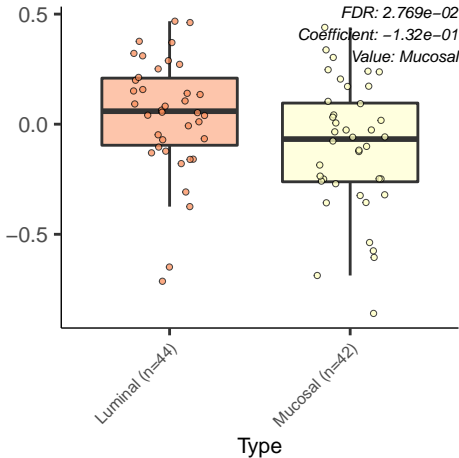
Luminal (n=44)

Mucosal (n=42)

Type



HEXITOLDEGSUPER.PWY



P341.PWY

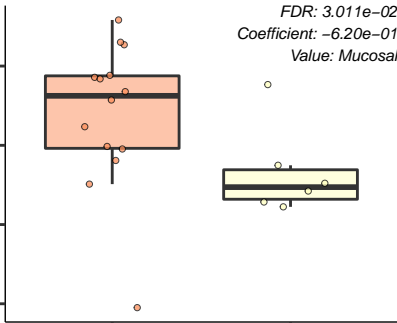
FDR: 3.011e-02
Coefficient: -6.20e-01
Value: Mucosal

0.0
-0.5
-1.0
-1.5

Luminal (n=44)

Mucosal (n=42)

Type



PWY.6700

0
-1
-2

Luminal (n=44)

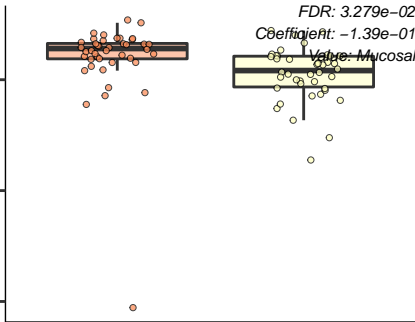
Mucosal (n=42)

Type

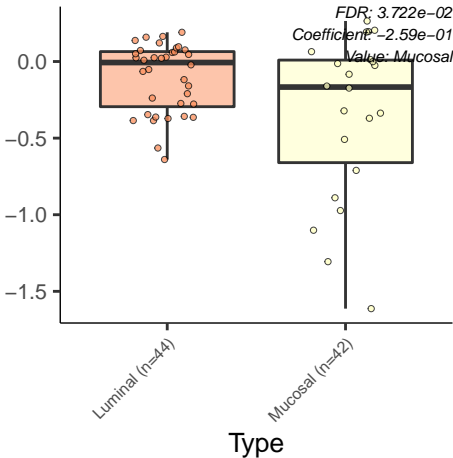
FDR: 3.279e-02

Coefficient: -1.39e-01

Value: Mucosal



SULFATE.CYS.PWY



POLYAMSYN.PWY

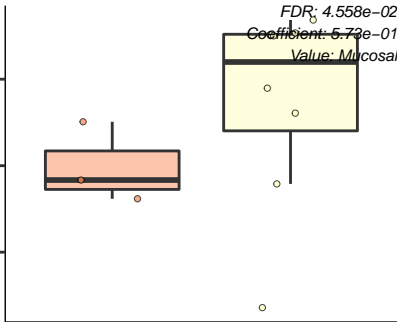
0.0
-0.4
-0.8

Luminal (n=44)

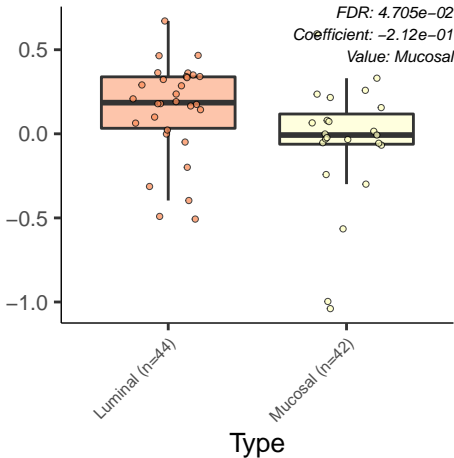
Mucosal (n=42)

Type

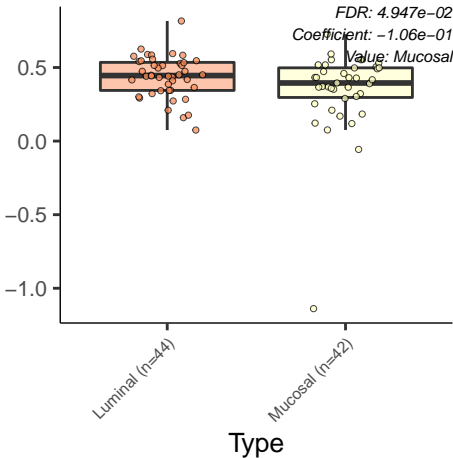
FDR: $4.558e-02$
Coefficient: $5.73e-01$
Value: Mucosal

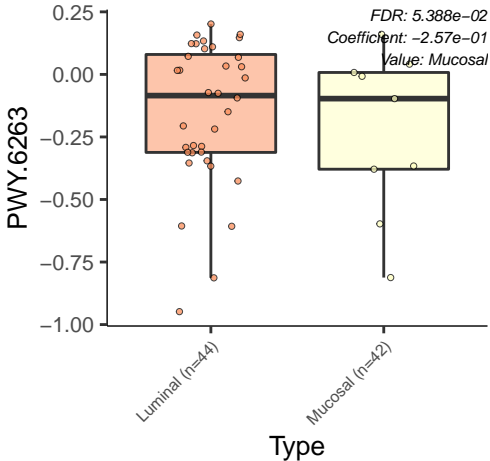


PWY.7377

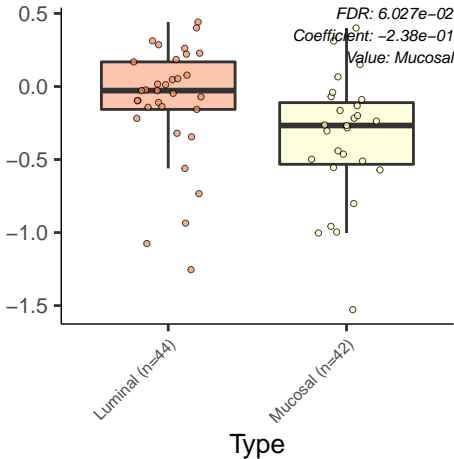


P122.PWY

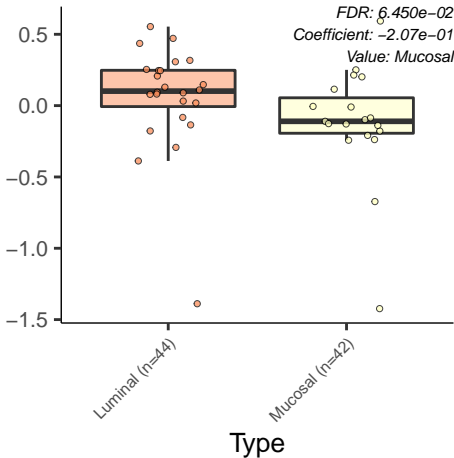




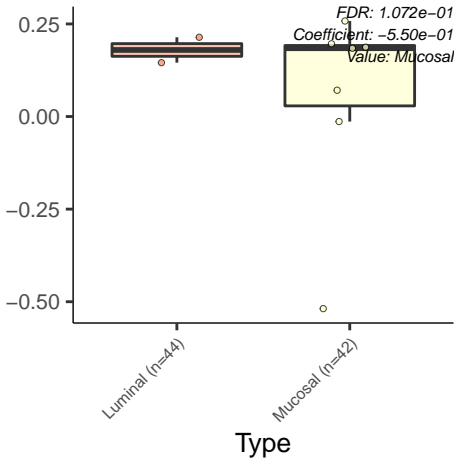
P164.PWY



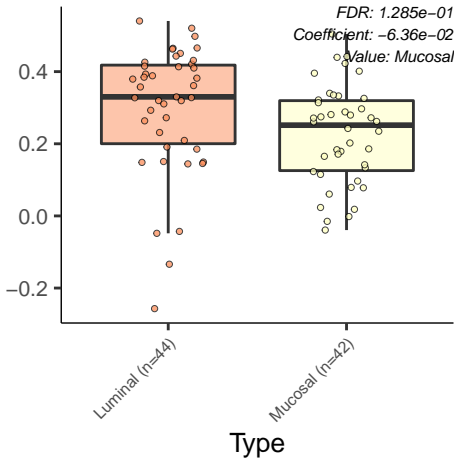
GOLPDL CAT.PWY



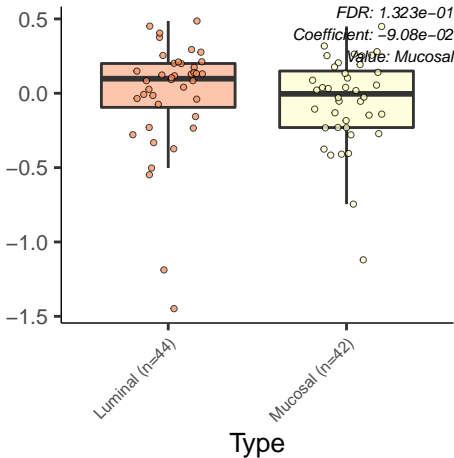
PWY.6282



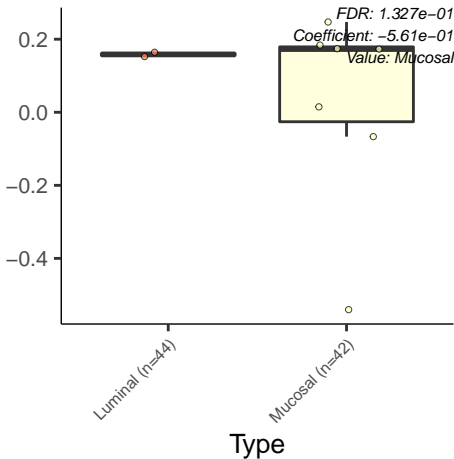
P461.PWY



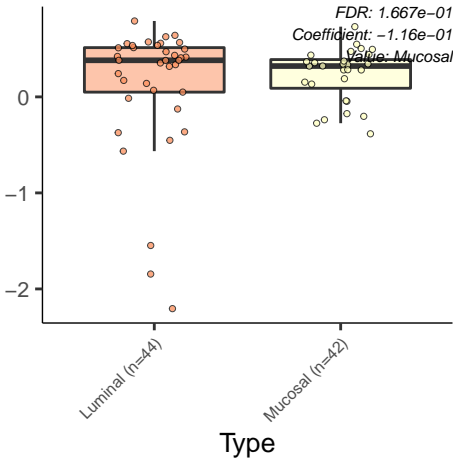
PWY.6353



PWY.5989



PWY.7013



PWY0.1061

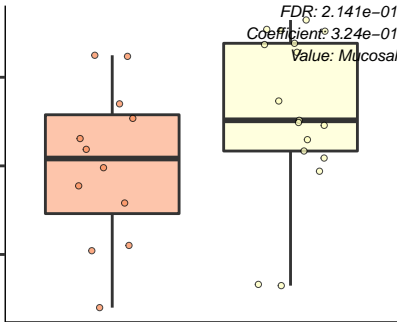
0.0
-0.5
-1.0

Luminal (n=44)

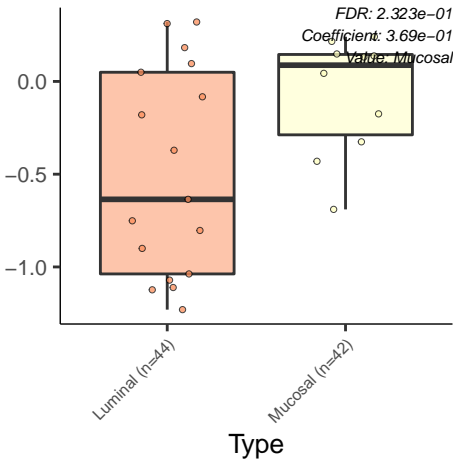
Mucosal (n=42)

Type

FDR: 2.141e-01
Coefficient: 3.24e-01
Value: Mucosal



FUCCAT.PWY



RHAMCAT.PWY

