

## **Nesting of colon and ovarian cancer cells in the endothelial niche is associated with alterations in glycan and lipid metabolism.**

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†Contributed equally

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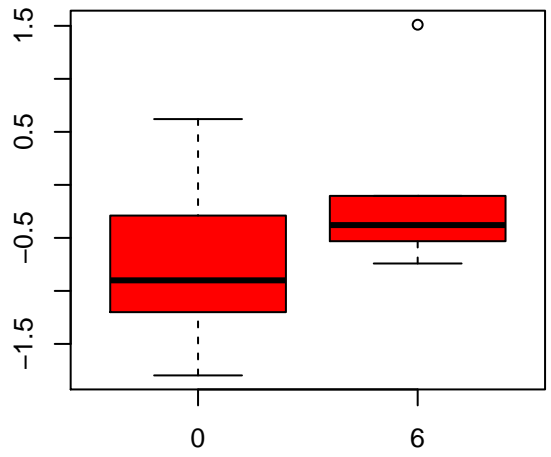
Corresponding authors:

Dr. Karsten Suhre: Department of Physiology and Biophysics, Weill Cornell Medicine-Qatar, Doha, Qatar Weill Cornell Medical College in Qatar, Qatar-Foundation, P.O Box: 24144, Doha, Qatar. Phone: +974 4492 8482. Fax: +974 4492 8422. Email: [kas2049@qatar-med.cornell.edu](mailto:kas2049@qatar-med.cornell.edu)

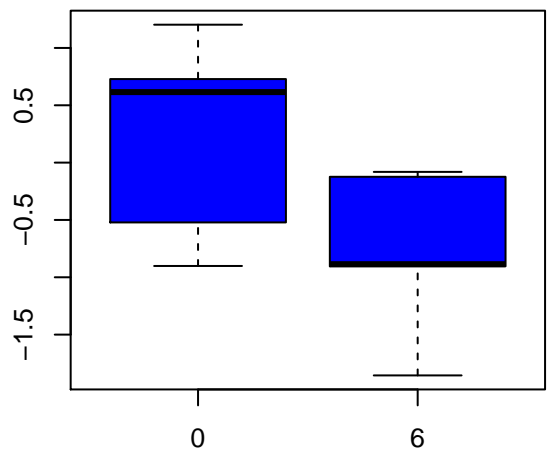
Dr. Arash Rafii: Department of Genetic Medicine and Obstetrics and Gynecology, Weill Cornell Medicine-Qatar, Stem cell and microenvironment laboratory Weill Cornell Medical College in Qatar, Qatar-Foundation, P.O Box: 24144, Doha, Qatar. Phone: +974 3313 5828. Fax: +974 4492 8422. Email: [jat2021@qatar-med.cornell.edu](mailto:jat2021@qatar-med.cornell.edu)

1-arachidonoylglycerophosphoethanolami

1-arachidonoylglycerophosphoethanolami



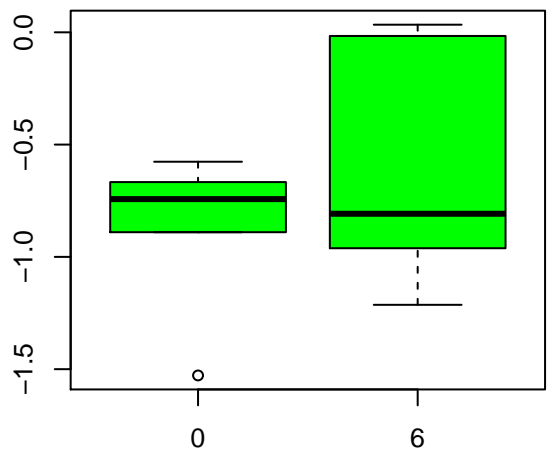
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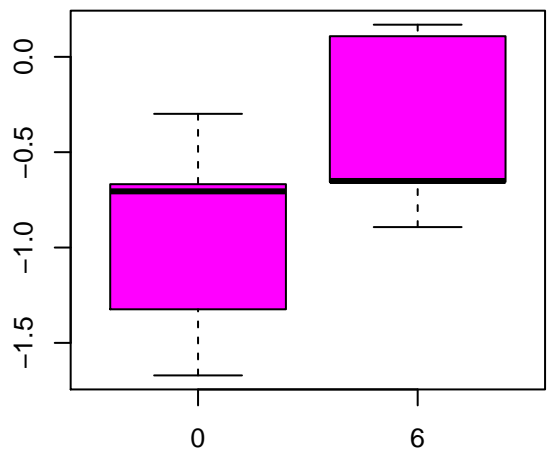
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1-arachidonoylglycerophosphoethanolami

1-arachidonoylglycerophosphoethanolami

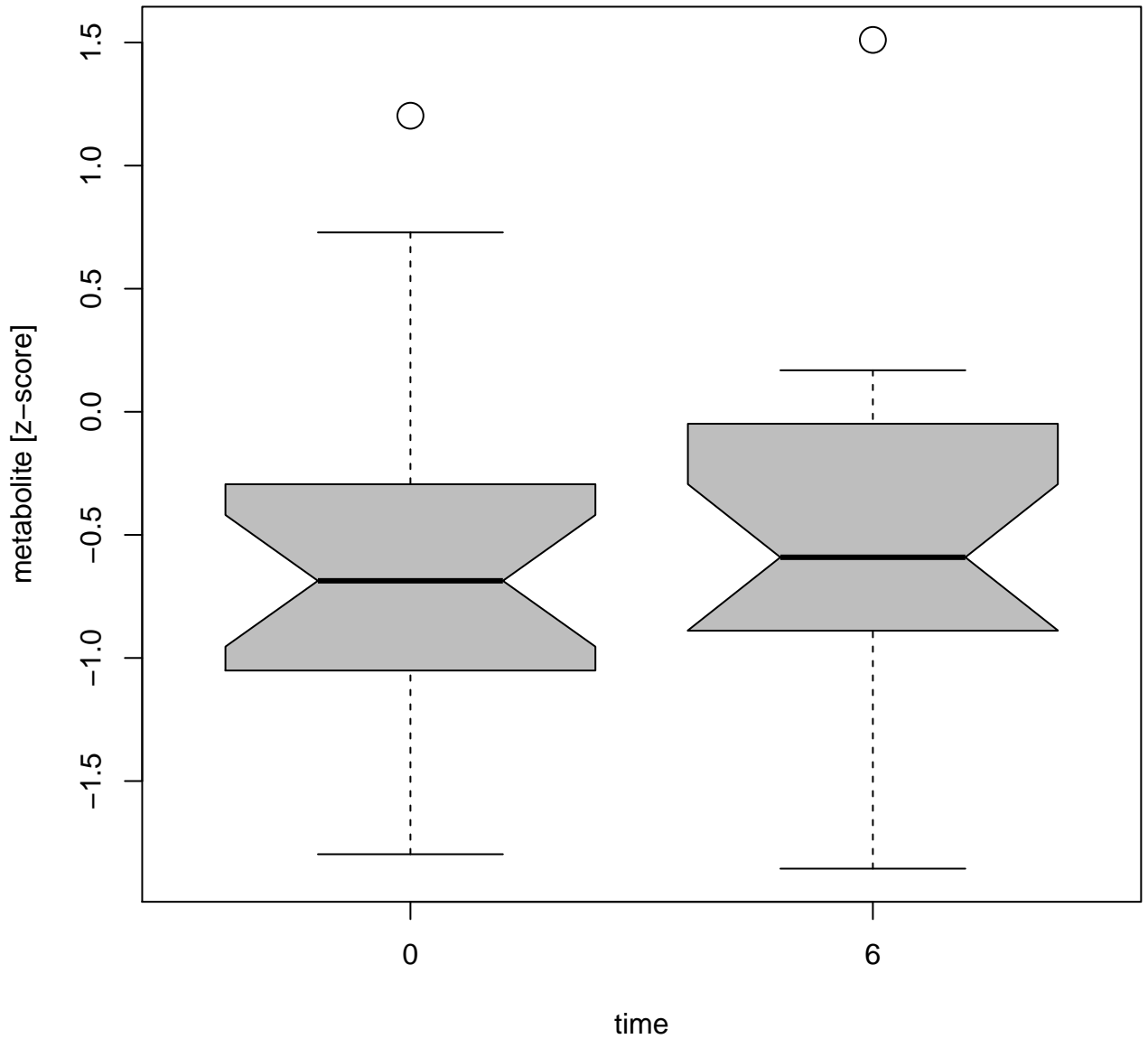


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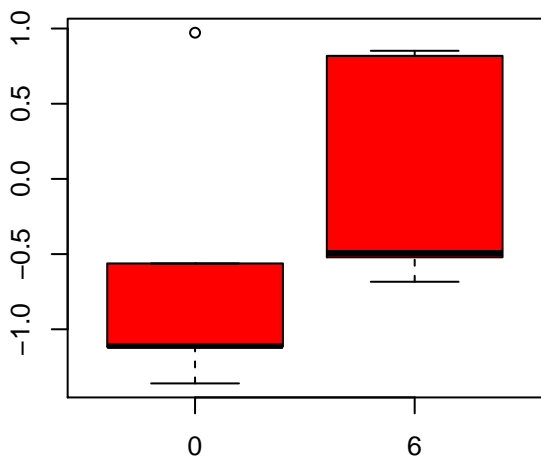


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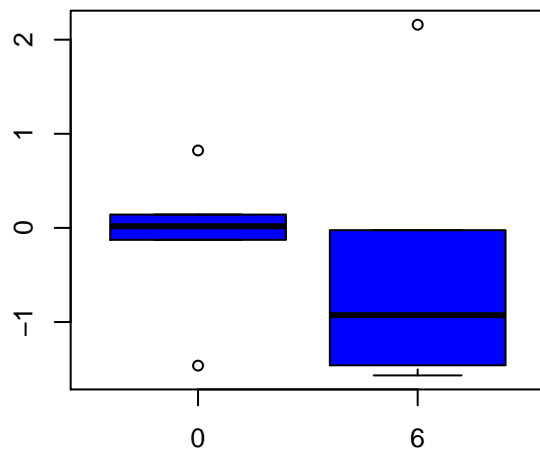
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-docosahexaenoylglycerophosphoethanolol-  
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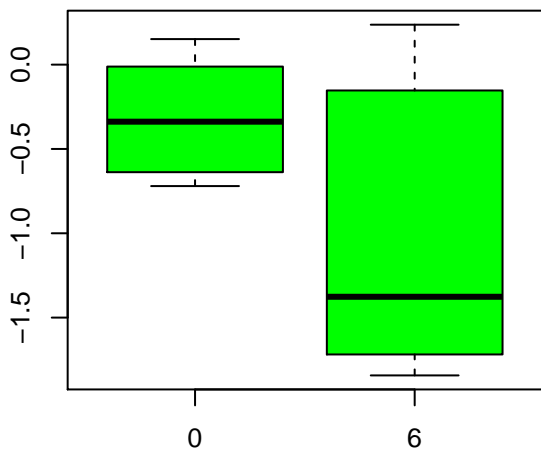


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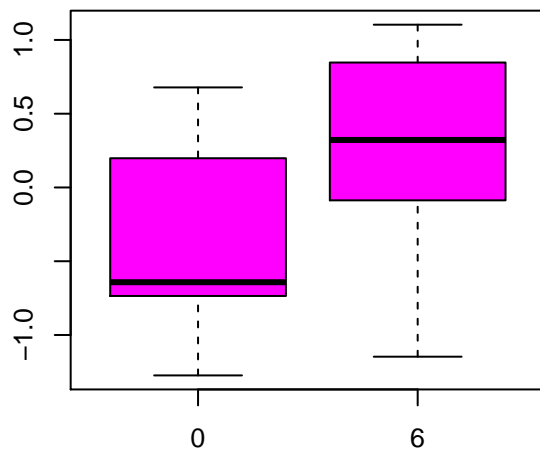


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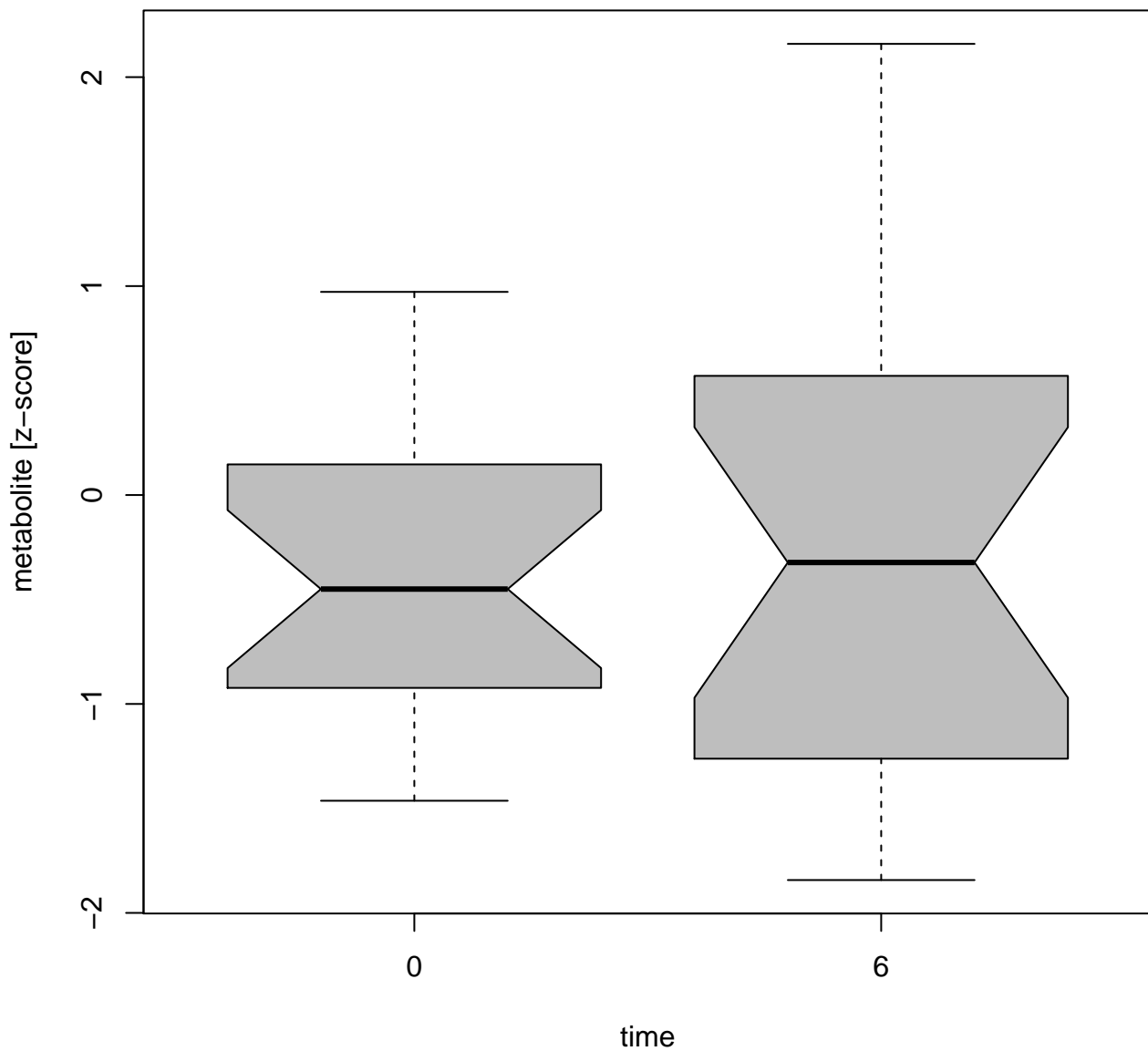


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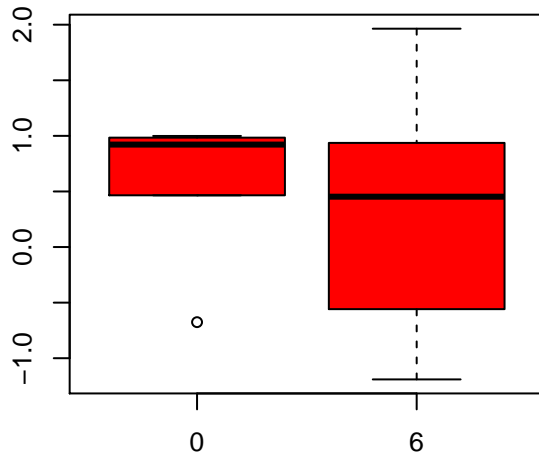


SKOV3

# 1-docosahexaenoylglycerophosphoethanolamine\*

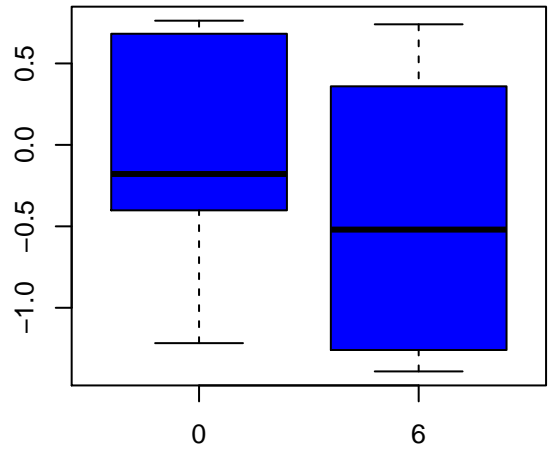


**1-oleoylglycerophosphoethanolamine**



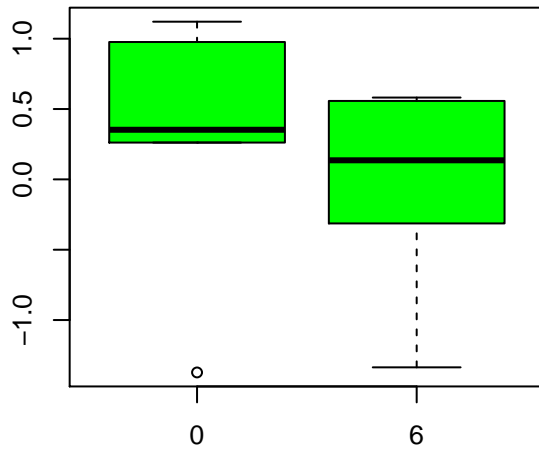
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**1-oleoylglycerophosphoethanolamine**



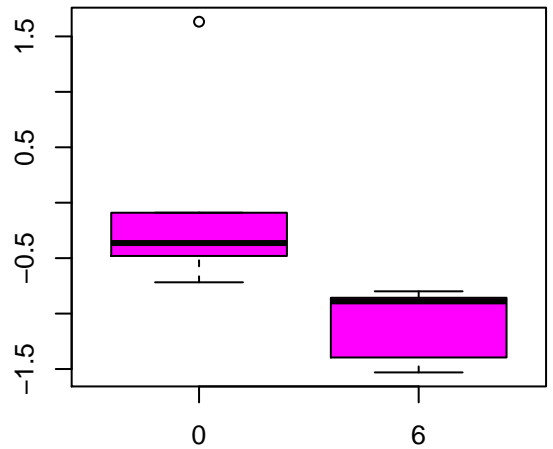
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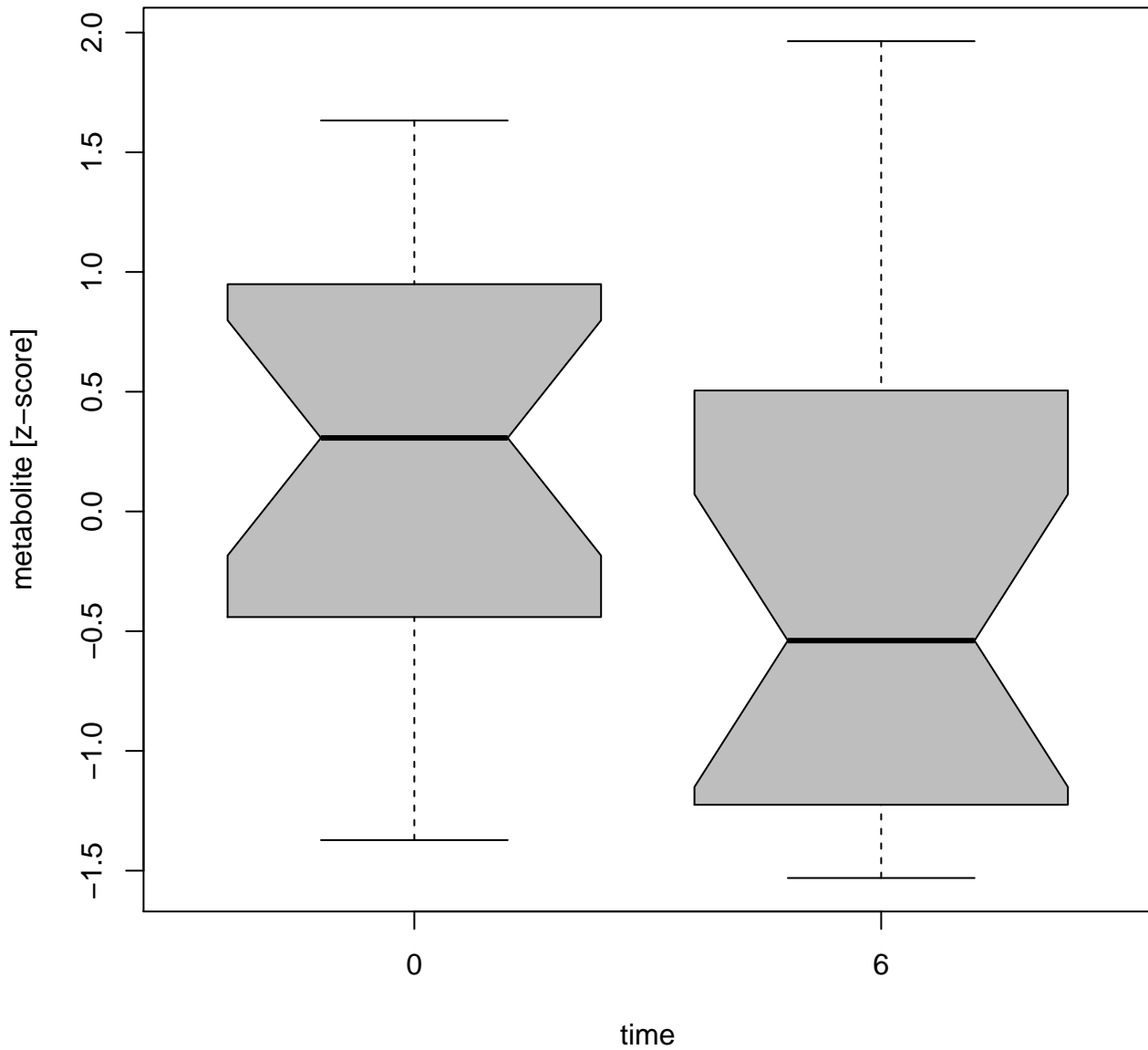
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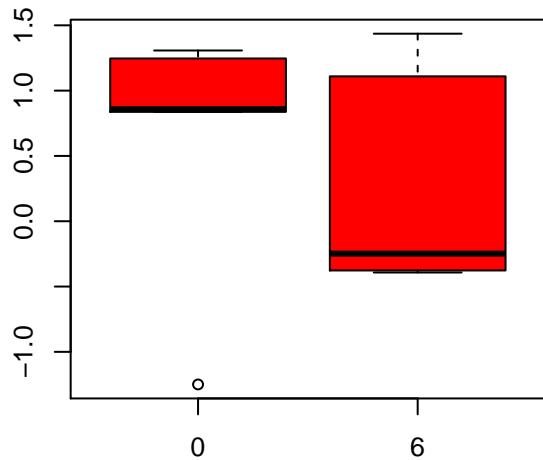


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# 1-oleoylglycerophosphoethanolamine

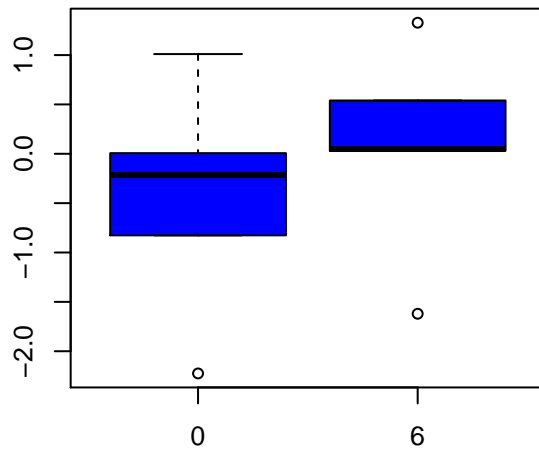


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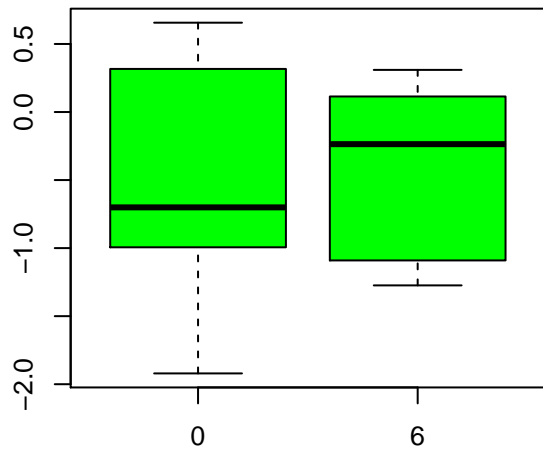
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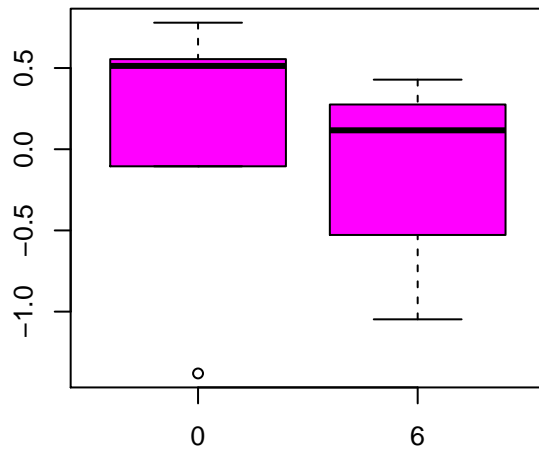
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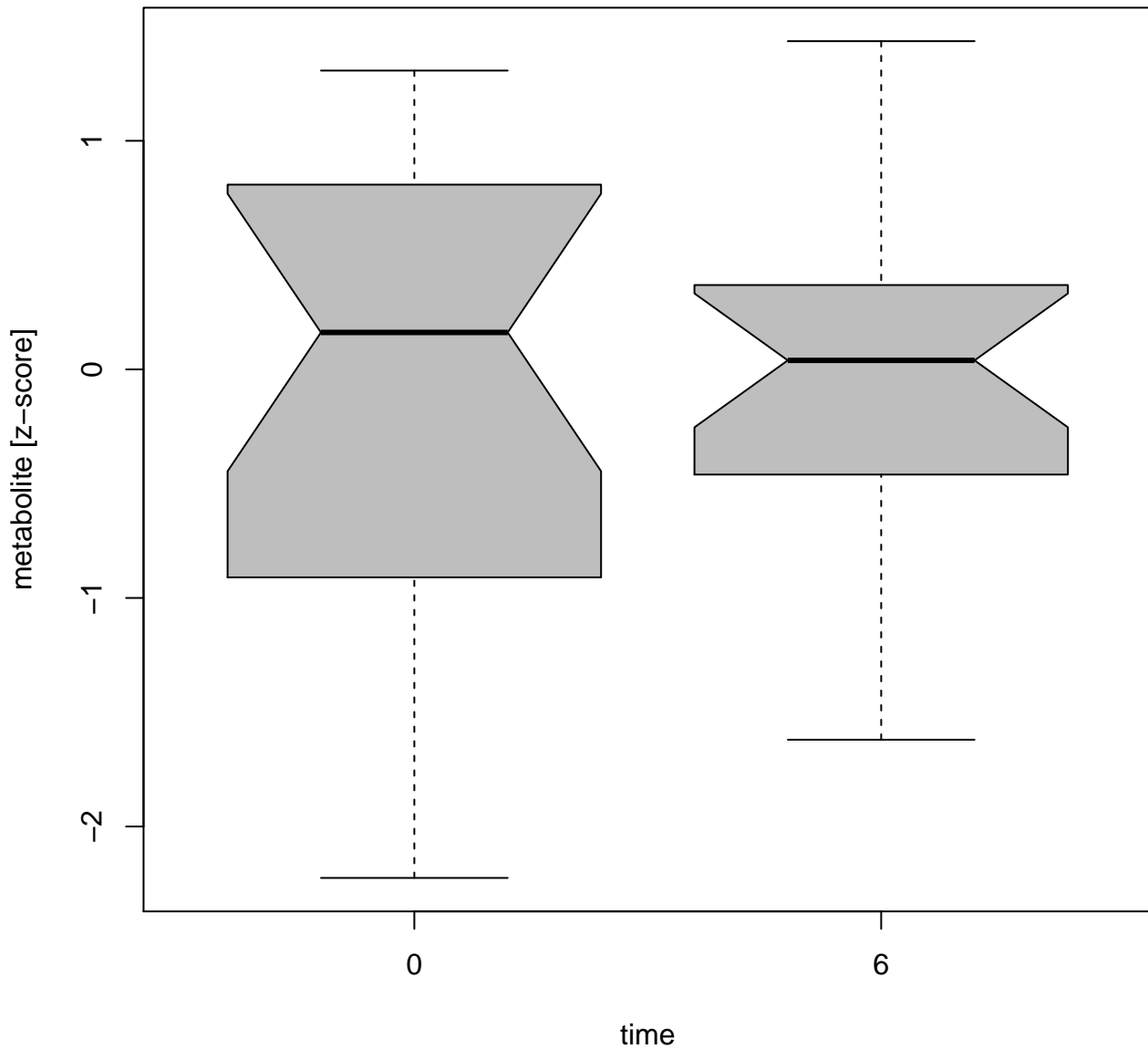
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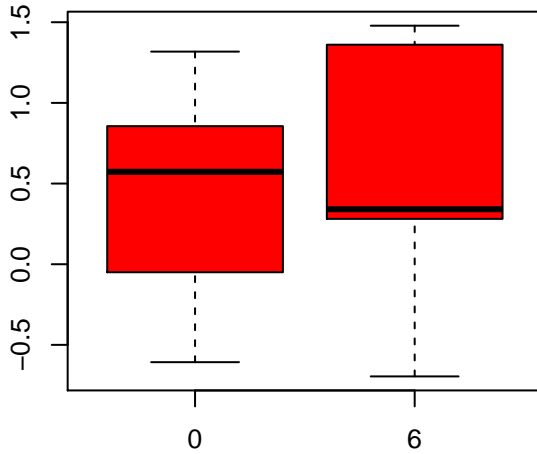
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# 1-palmitoylglycerophosphoethanolamine

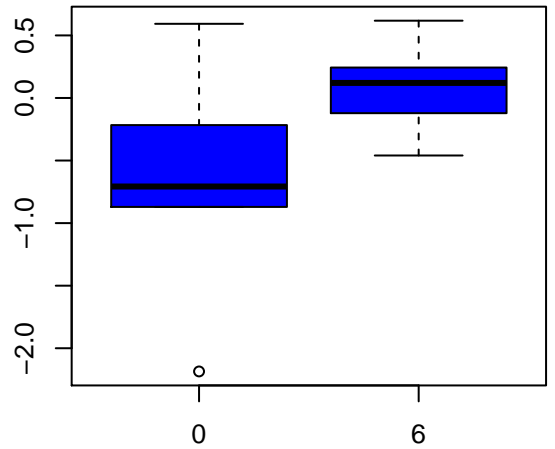


**1-palmitoylplasmenylethanolamine\***



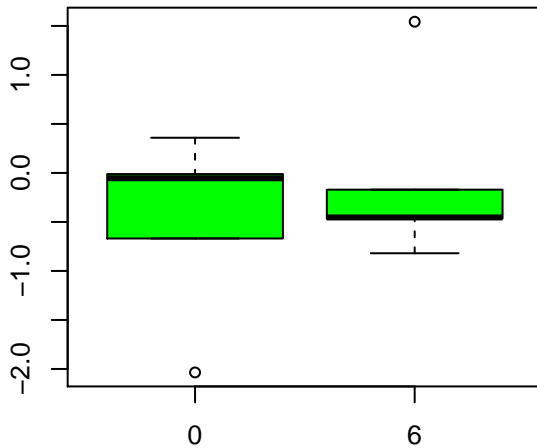
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**1-palmitoylplasmenylethanolamine\***



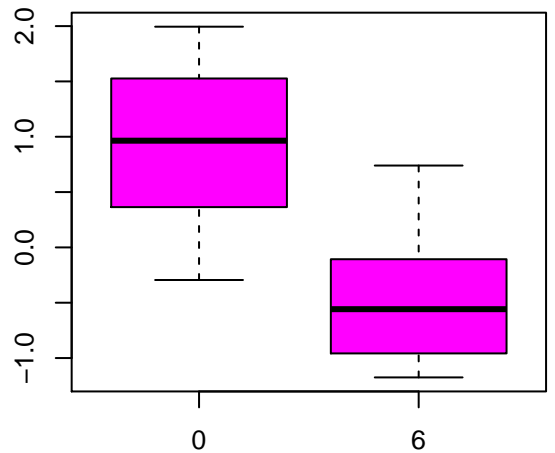
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**1-palmitoylplasmenylethanolamine\***



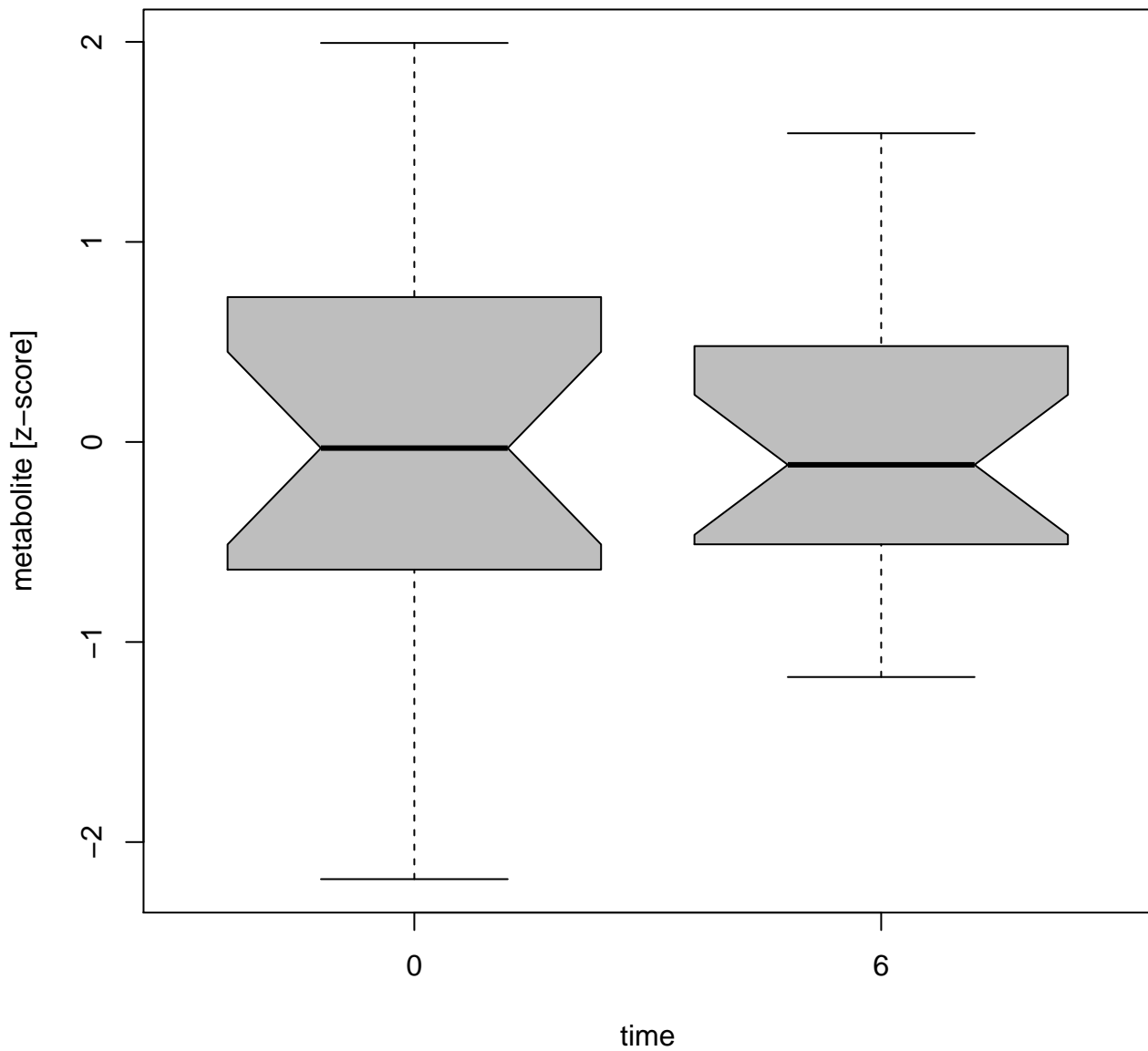
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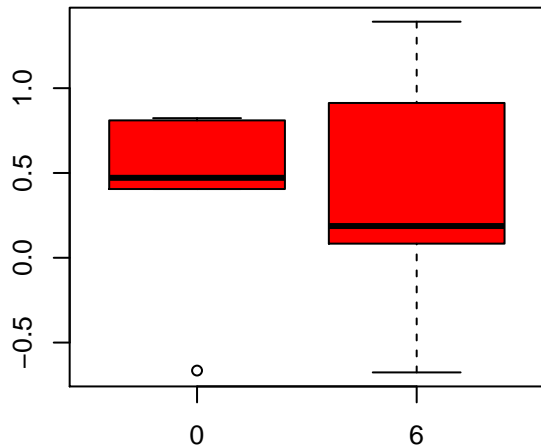


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# 1-palmitoylplasmenylethanolamine\*

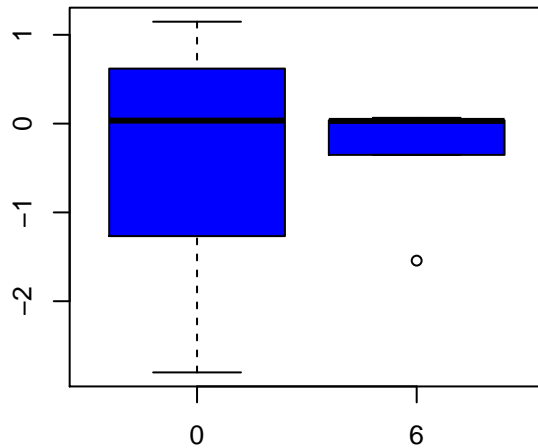


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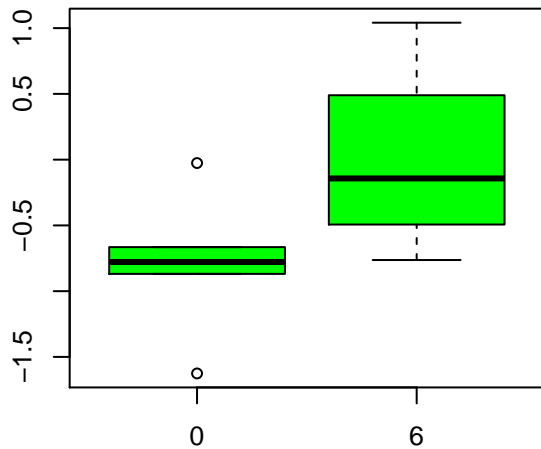
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1-stearoylglycerophosphoethanolamine



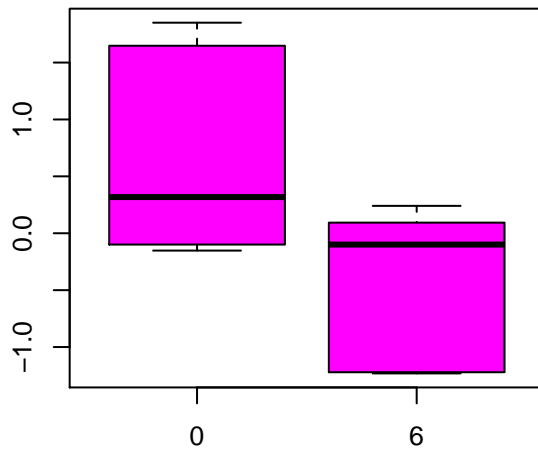
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1-stearoylglycerophosphoethanolamine



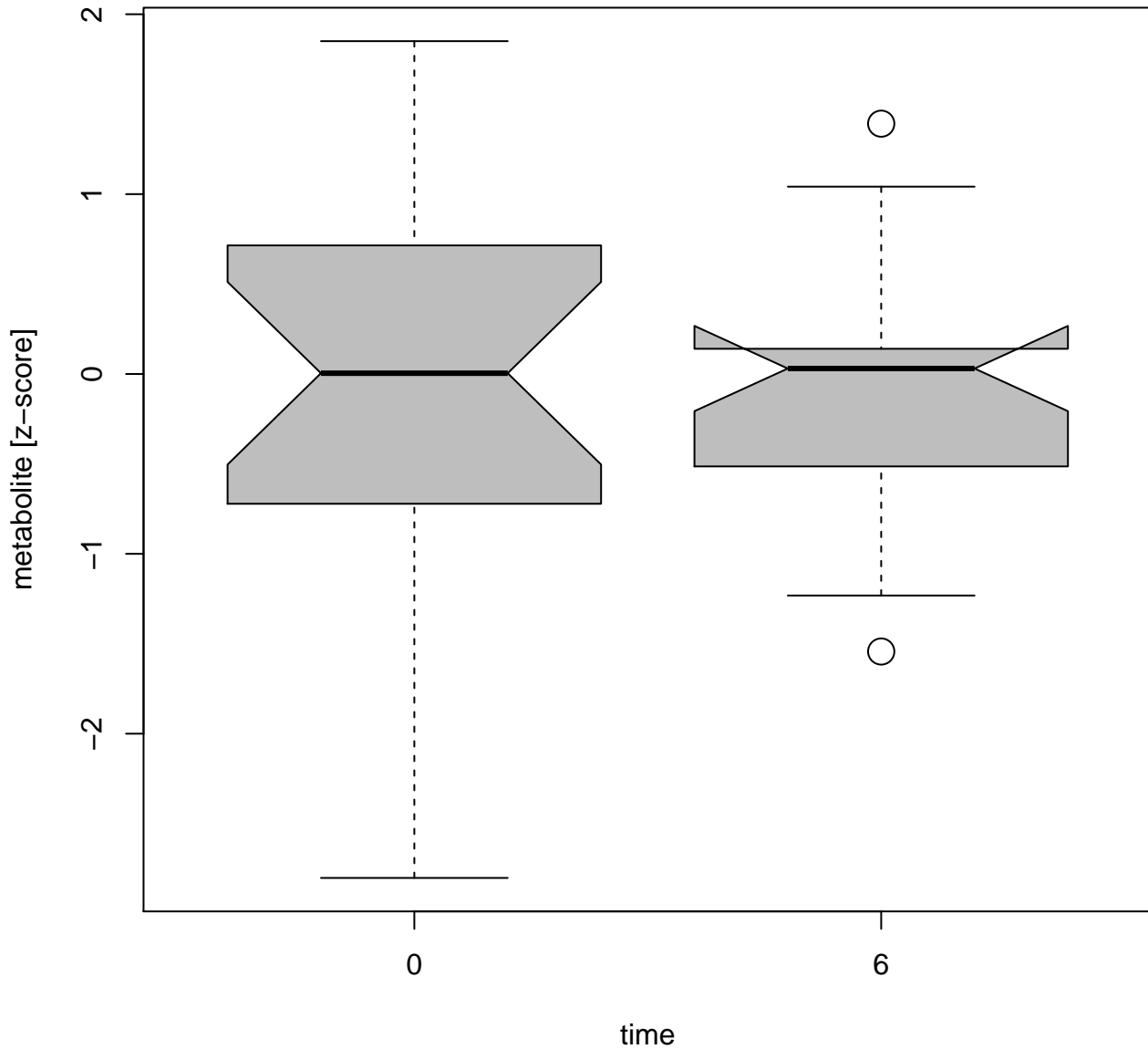
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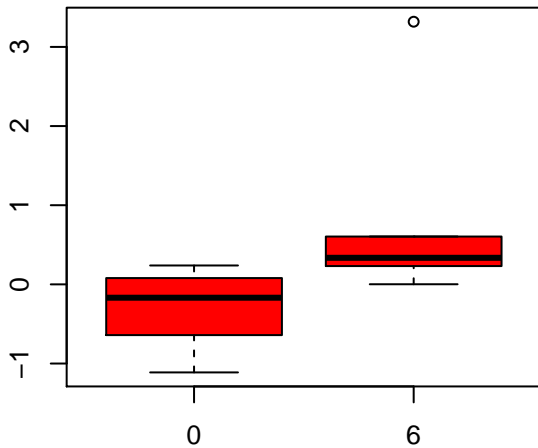


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# 1-stearoylglycerophosphoethanolamine

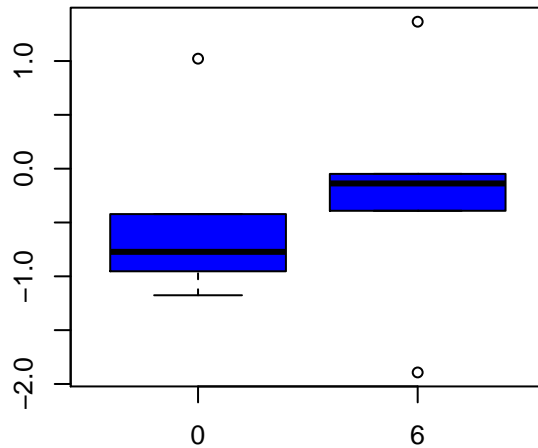


**10-heptadecenoate (17:1n7)**



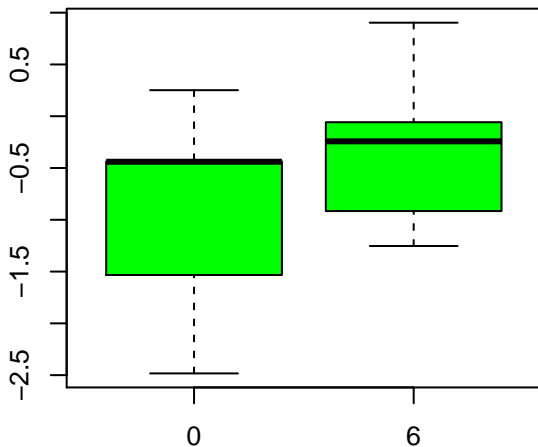
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**10-heptadecenoate (17:1n7)**



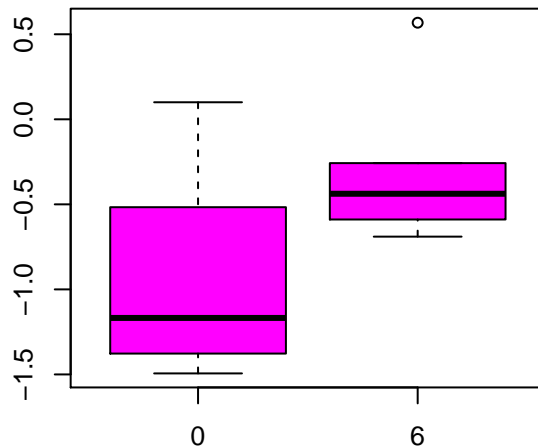
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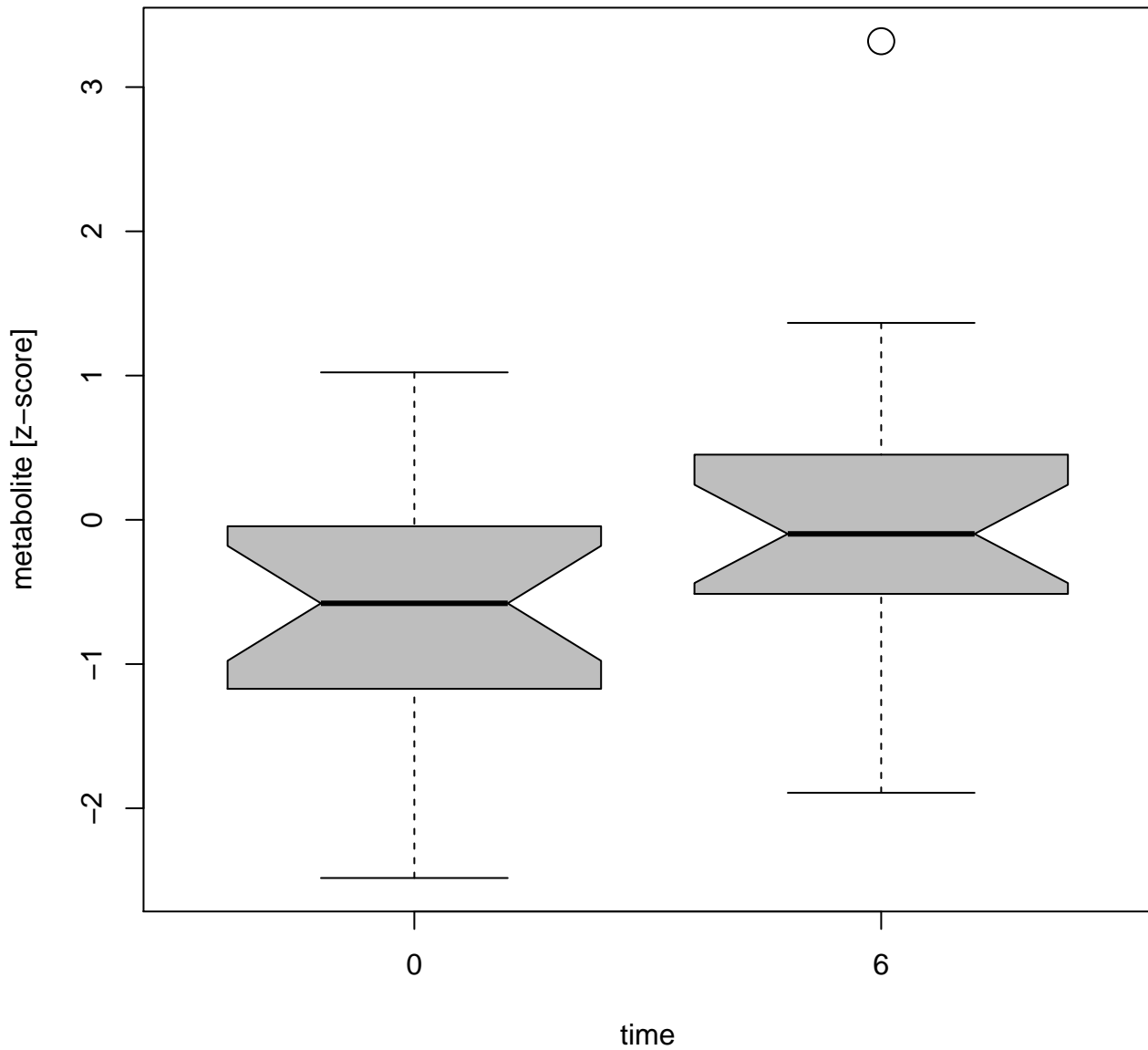
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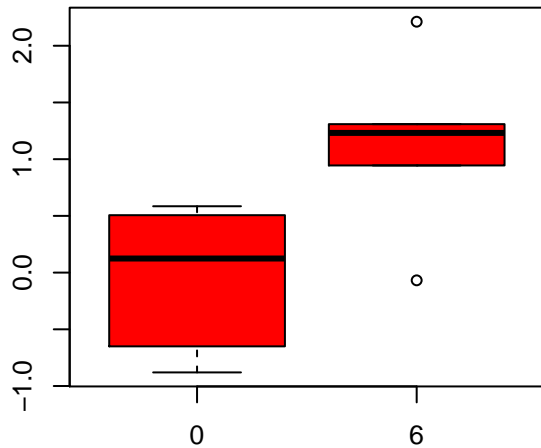


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# 10-heptadecenoate (17:1n7)

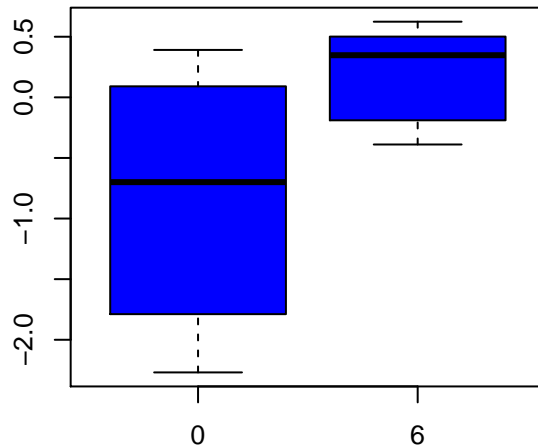


**10-nonadecenoate (19:1n9)**



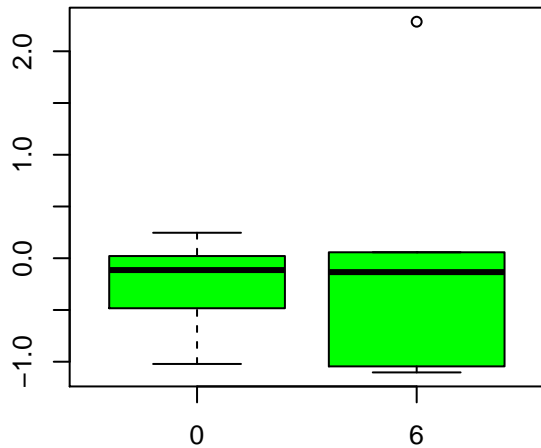
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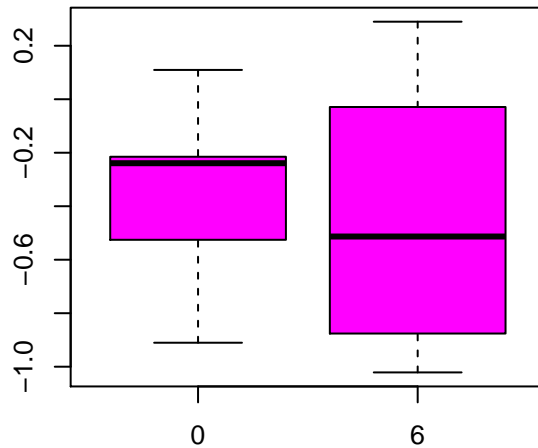
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**10-nonadecenoate (19:1n9)**



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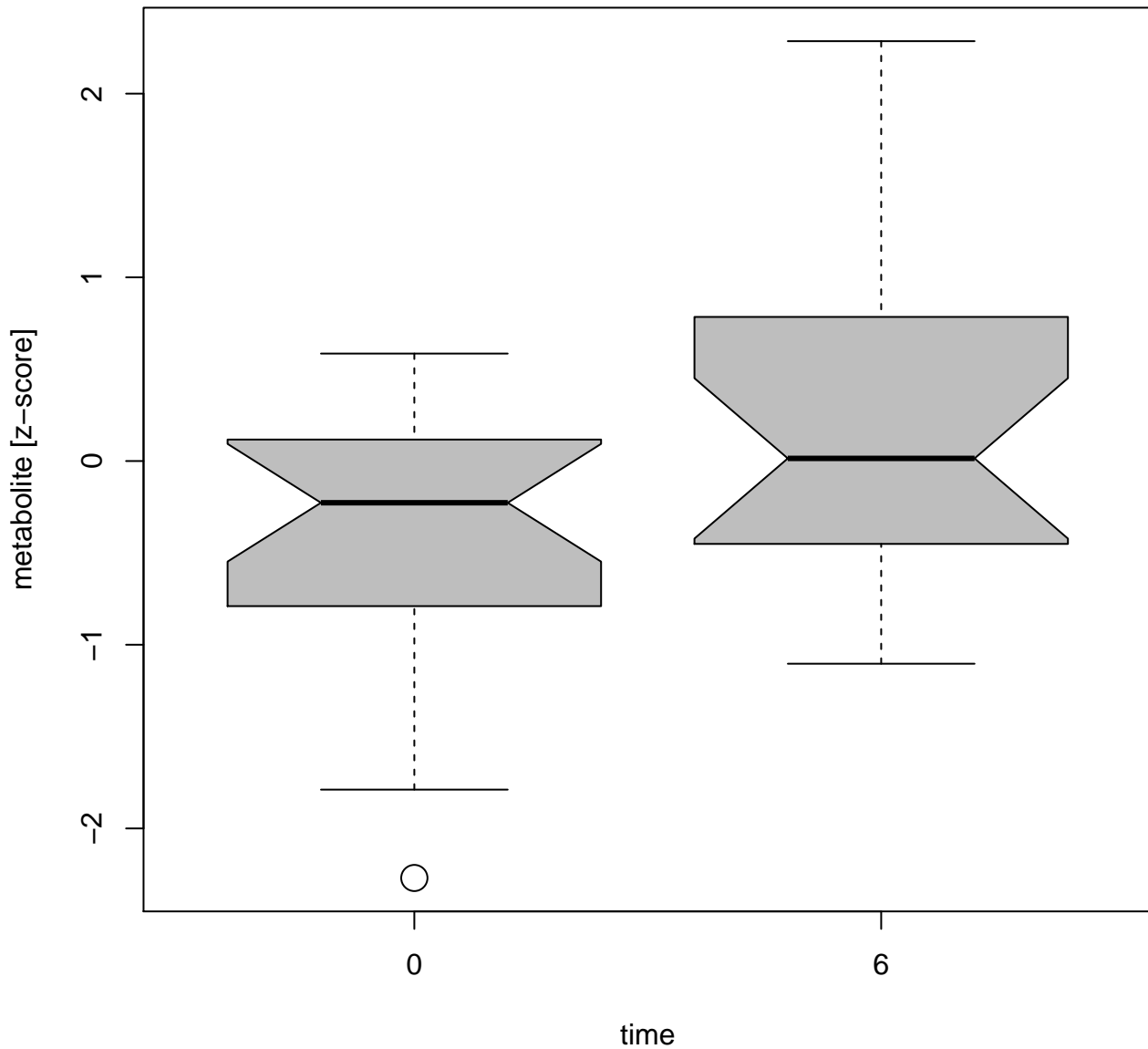
**10-nonadecenoate (19:1n9)**



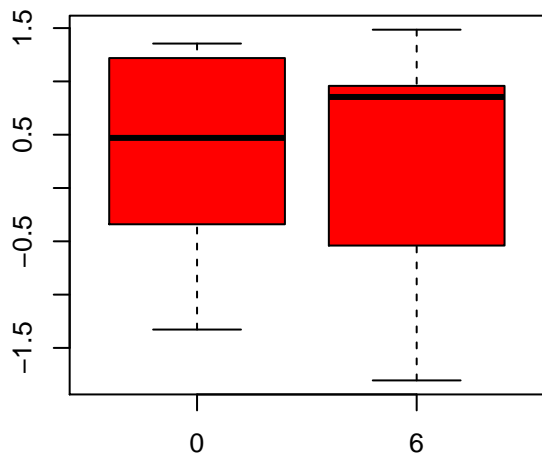
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# 10-nonadecenoate (19:1n9)

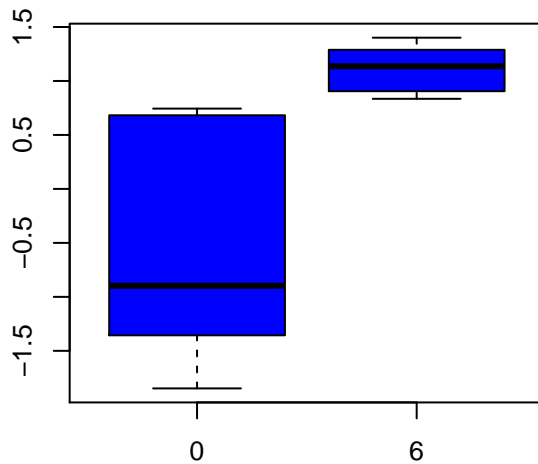


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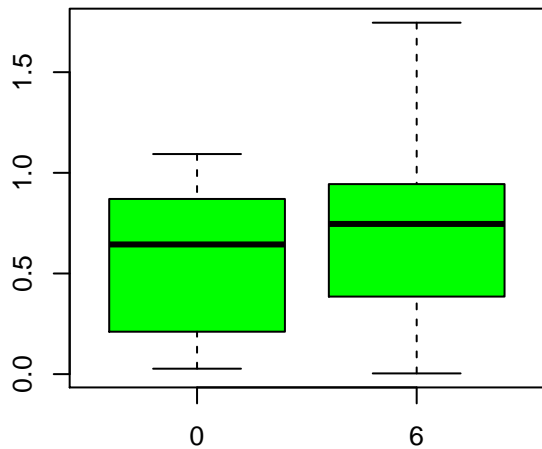
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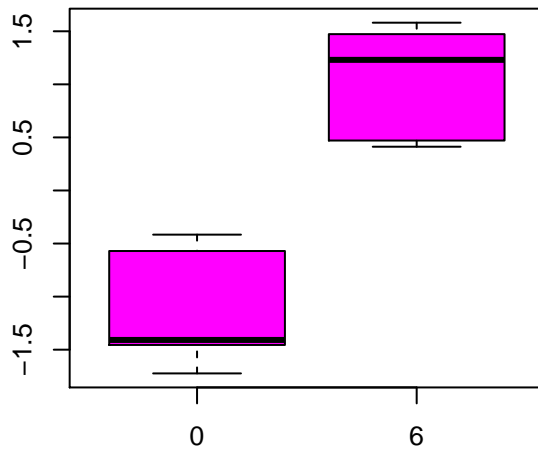
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**2-aminoadipate**



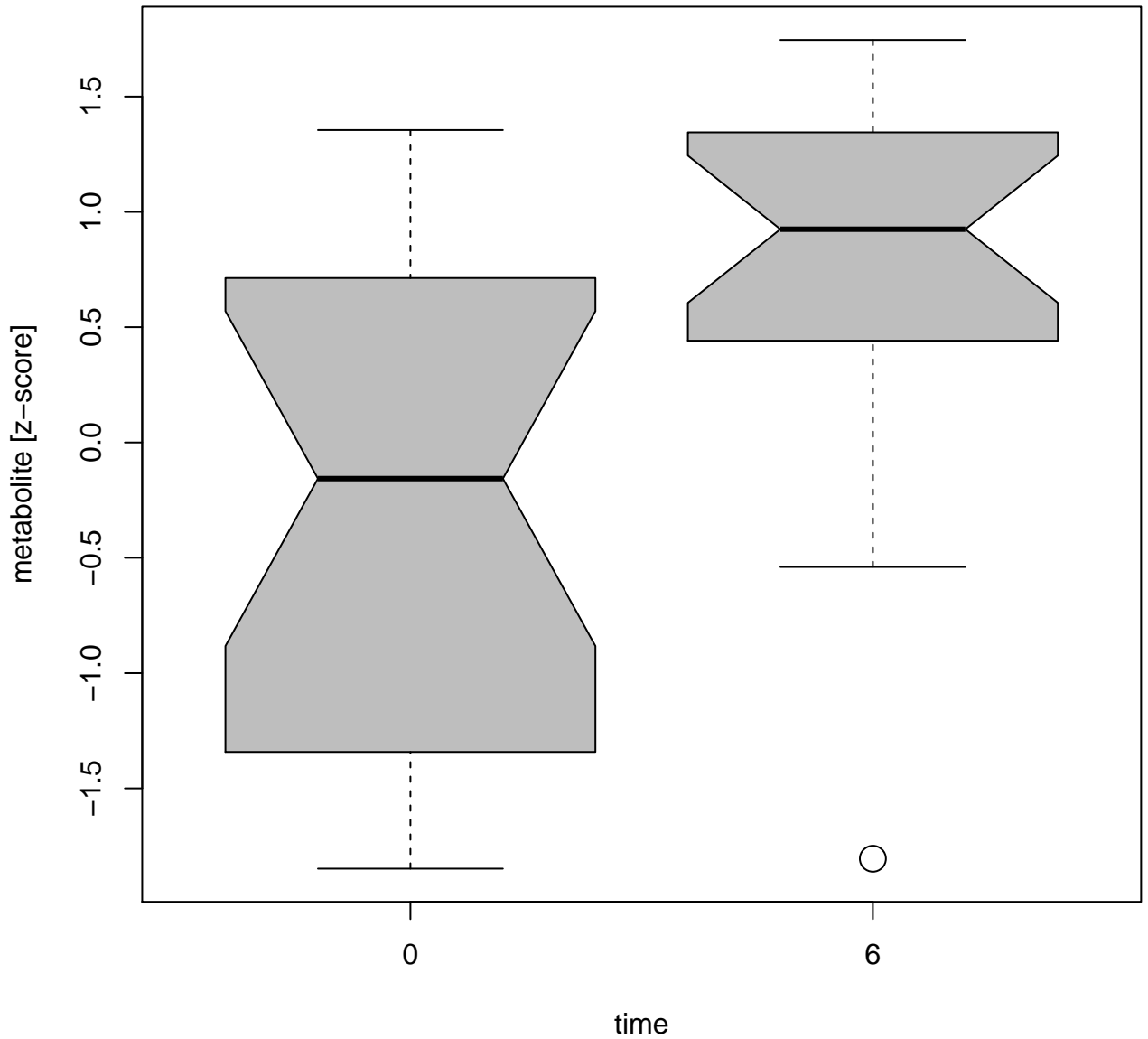
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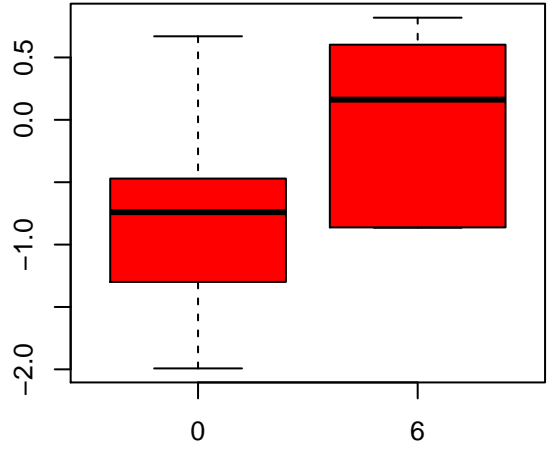


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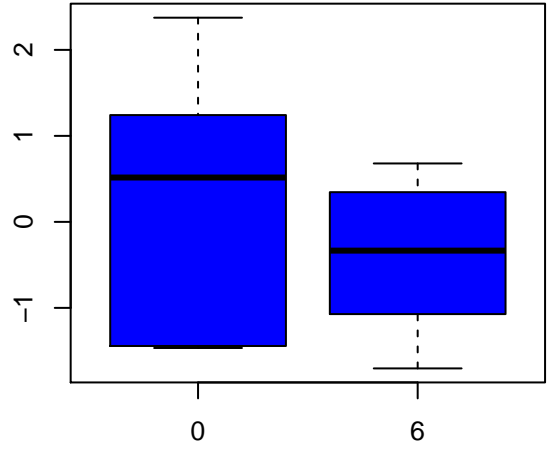
## 2-aminoadipate



**2-arachidonoylglycerophosphoethanolami 2-arachidonoylglycerophosphoethanolami**

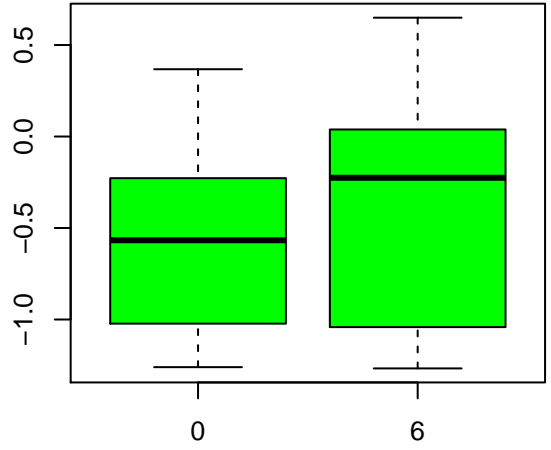


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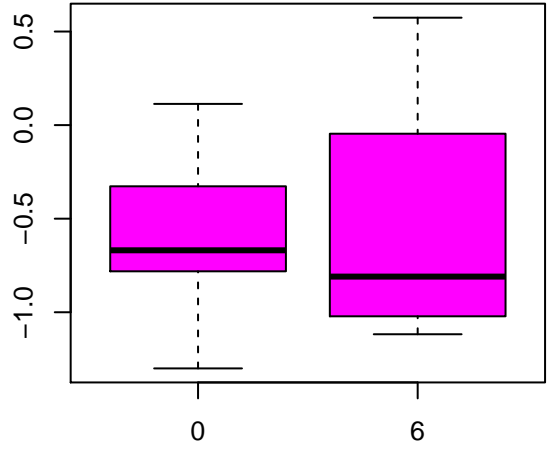


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**2-arachidonoylglycerophosphoethanolami 2-arachidonoylglycerophosphoethanolami**

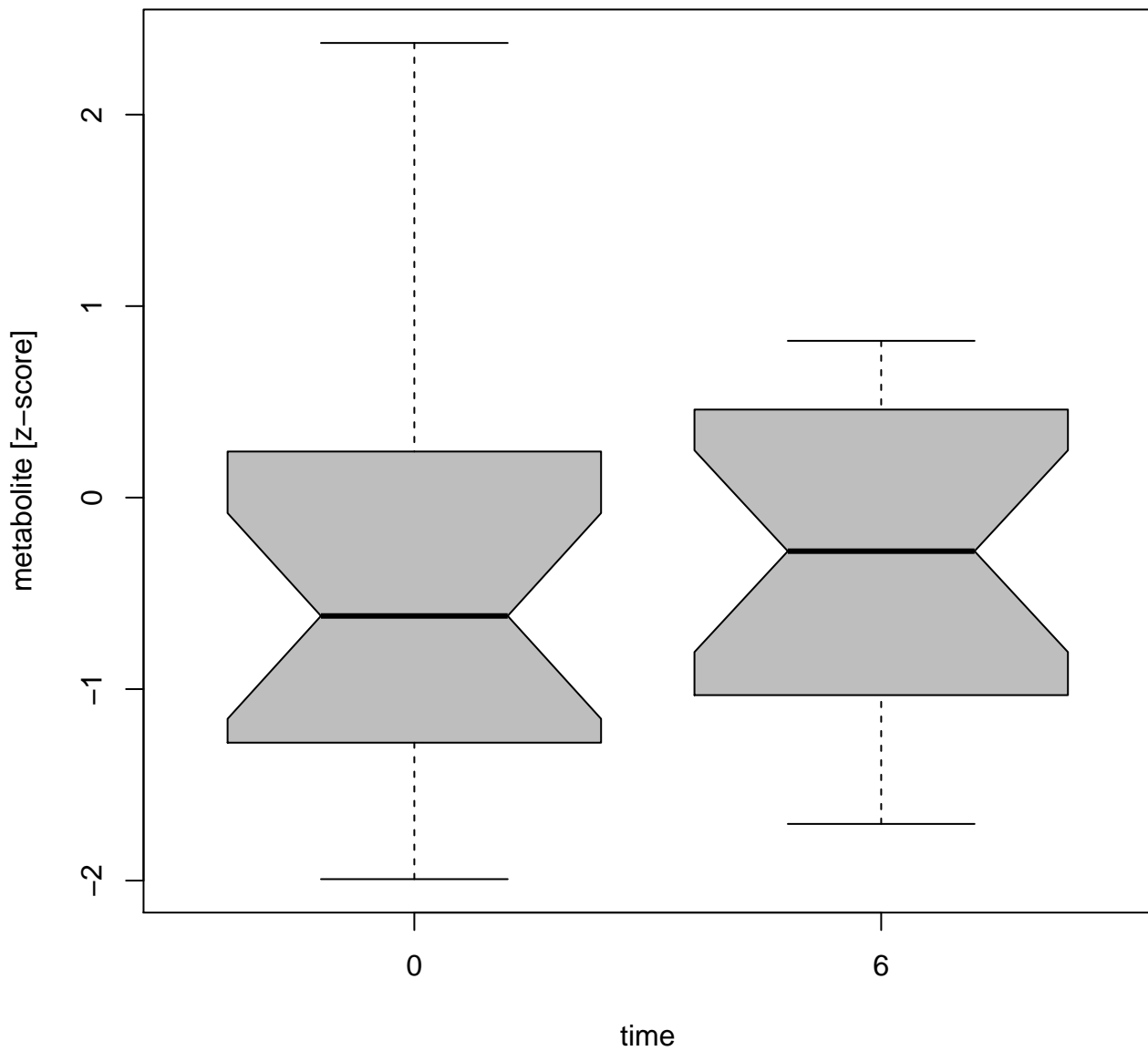


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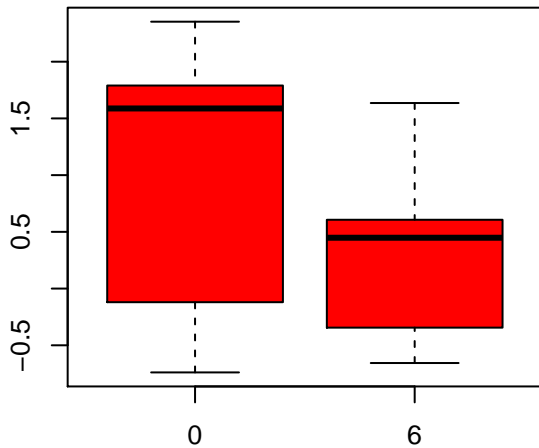


SKOV3

# 2-arachidonoylglycerophosphoethanolamine\*

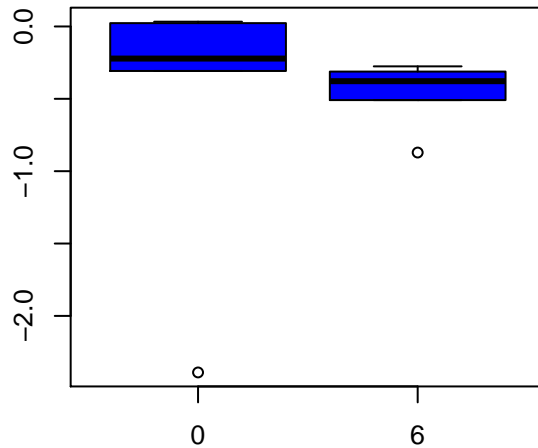


**2-methylbutyrylcarnitine (C5)**



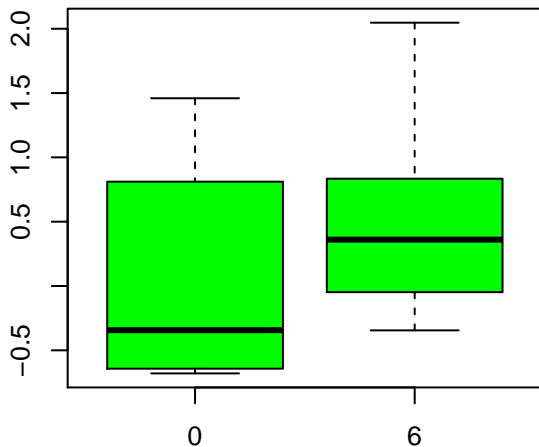
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**2-methylbutyrylcarnitine (C5)**



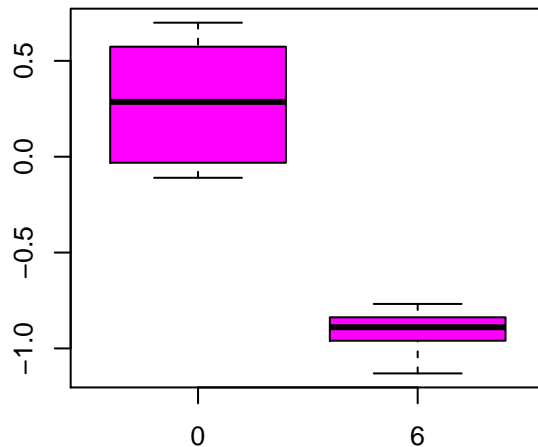
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**2-methylbutyrylcarnitine (C5)**



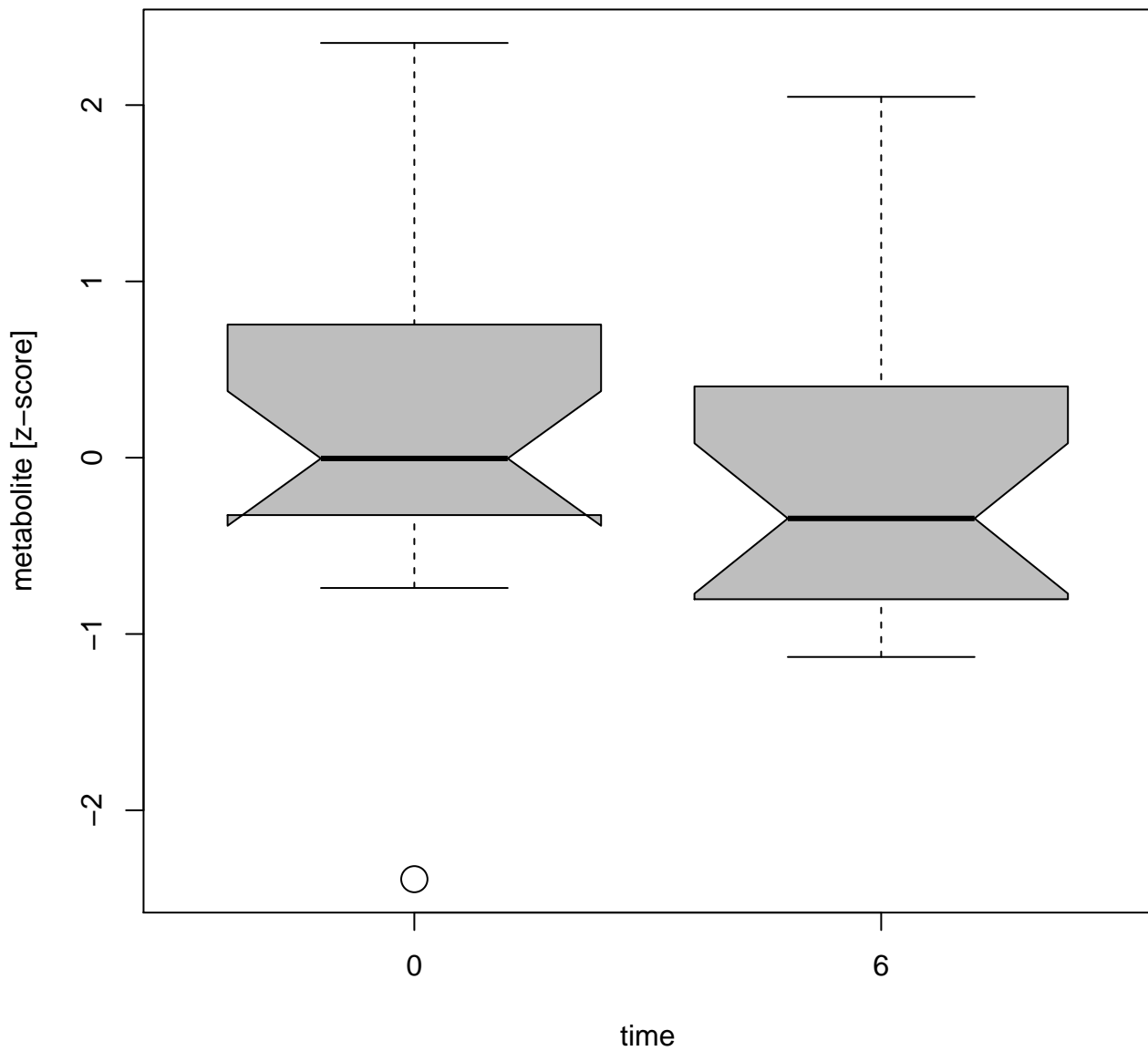
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**2-methylbutyrylcarnitine (C5)**

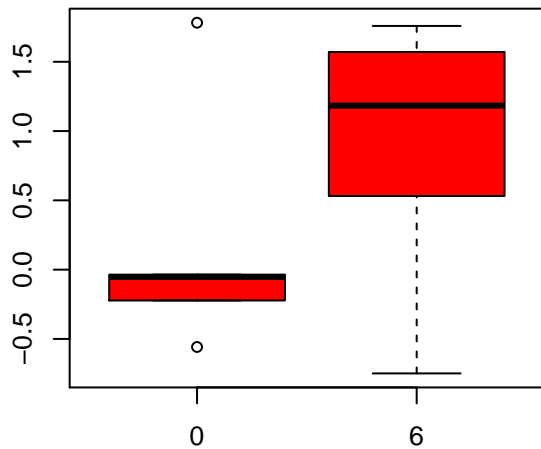


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## 2-methylbutyrylcarnitine (C5)

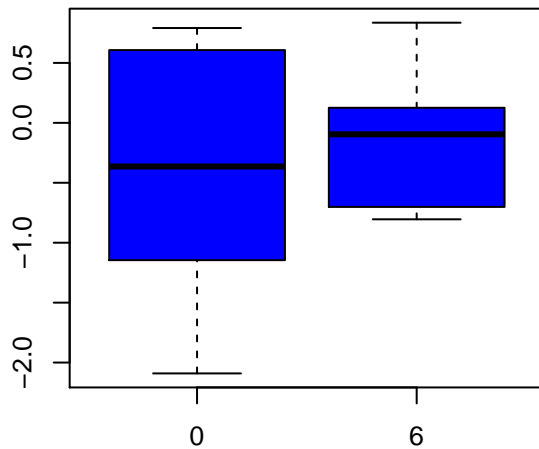


**2-oleoylglycerophosphoethanolamine\***



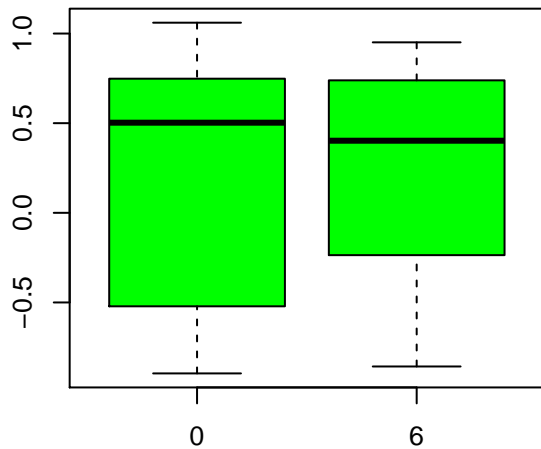
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**2-oleoylglycerophosphoethanolamine\***



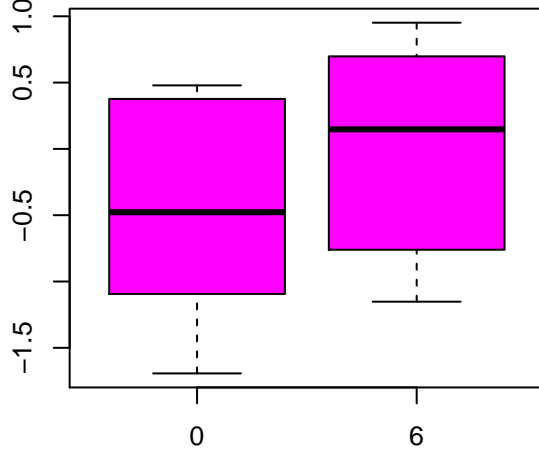
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**2-oleoylglycerophosphoethanolamine\***



HCT15

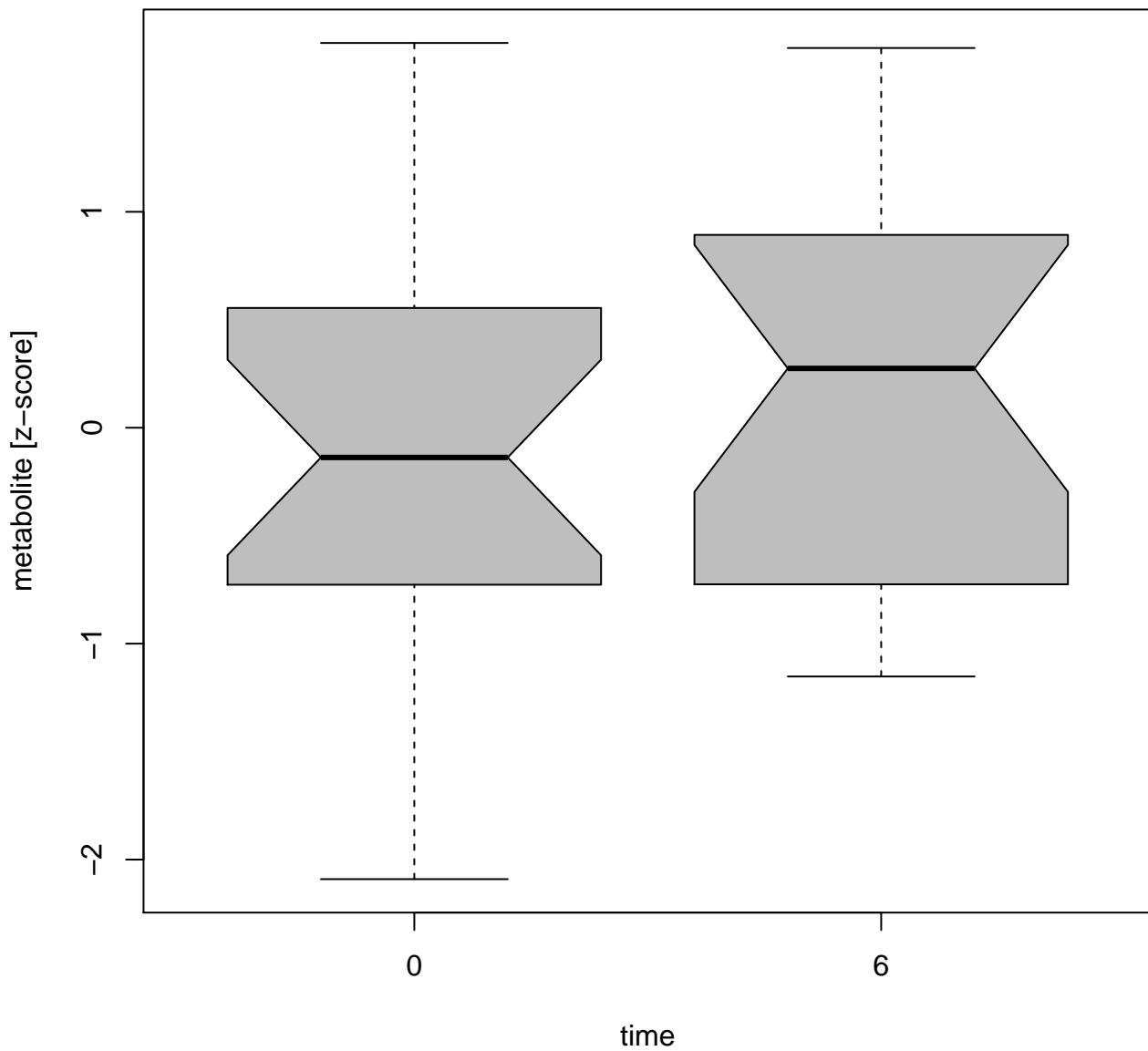
**2-oleoylglycerophosphoethanolamine\***



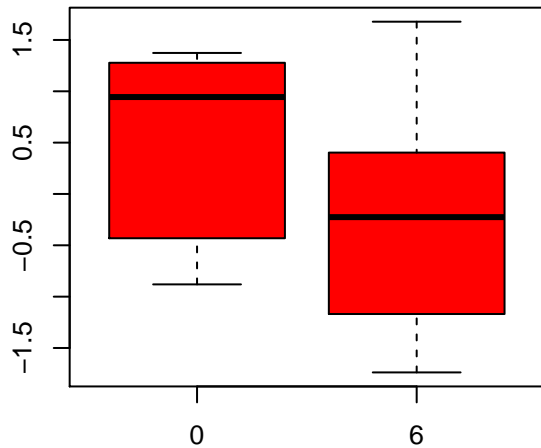
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## 2-oleoylglycerophosphoethanolamine\*

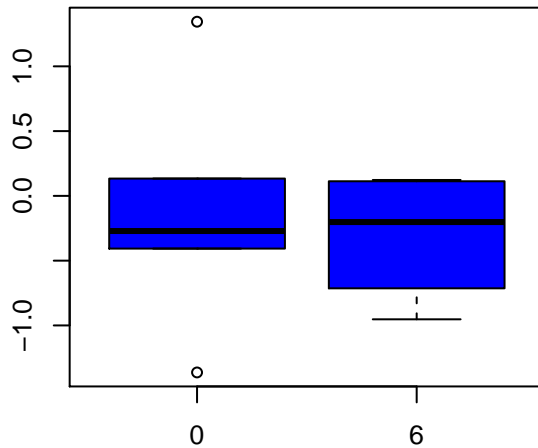


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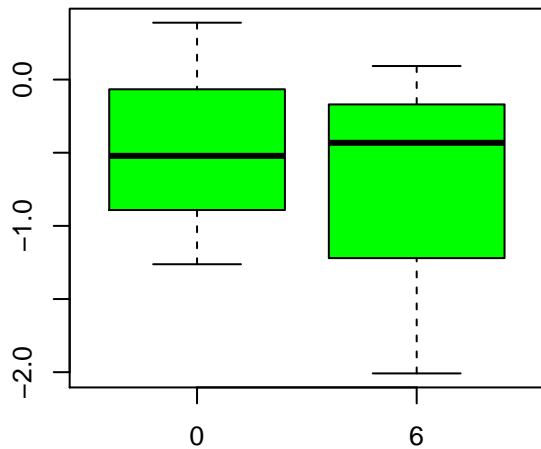
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**2-palmitoylglycerophosphoethanolamine**



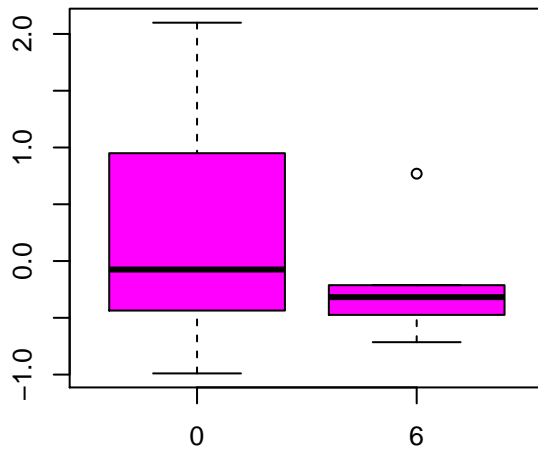
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**2-palmitoylglycerophosphoethanolamine**



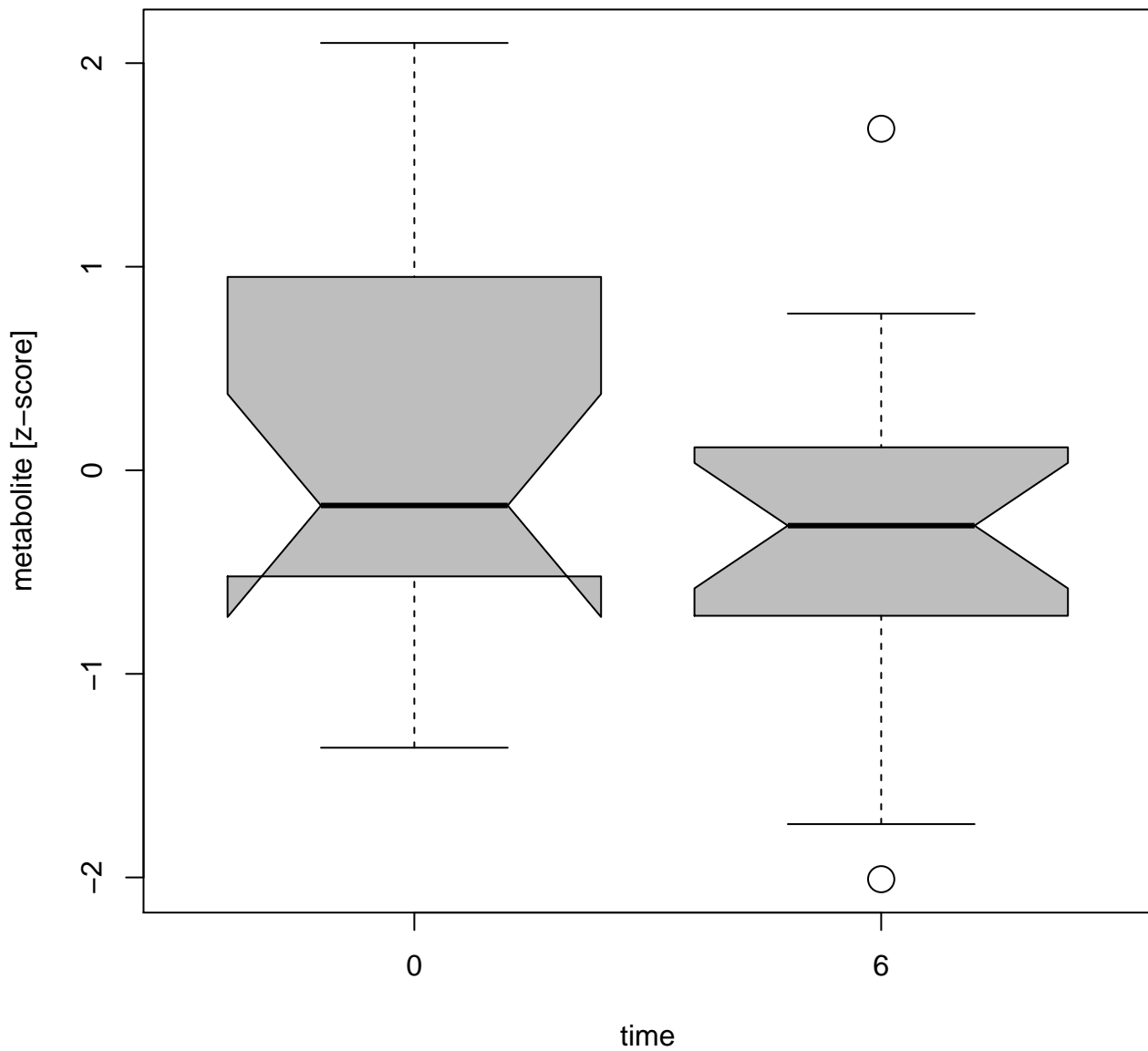
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**2-palmitoylglycerophosphoethanolamine**

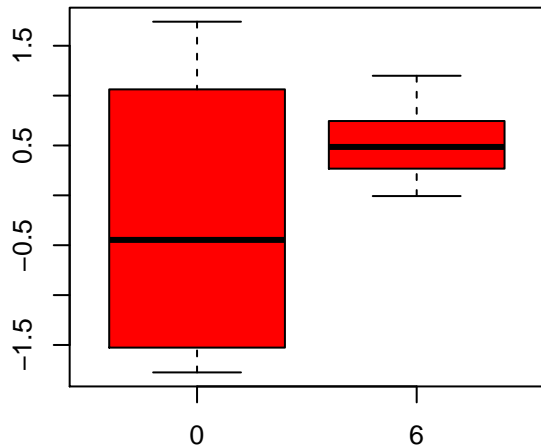


SKOV3

# 2-palmitoylglycerophosphoethanolamine\*

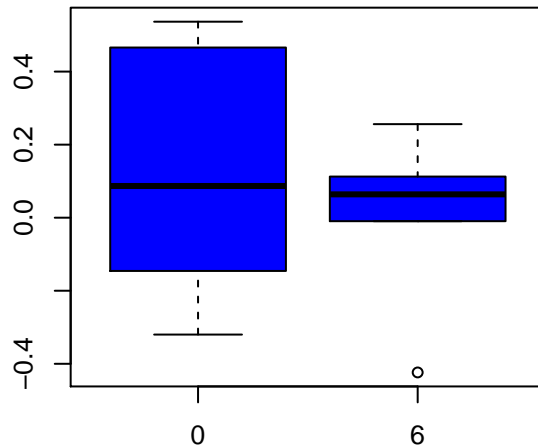


**2-phenoxyethanol**



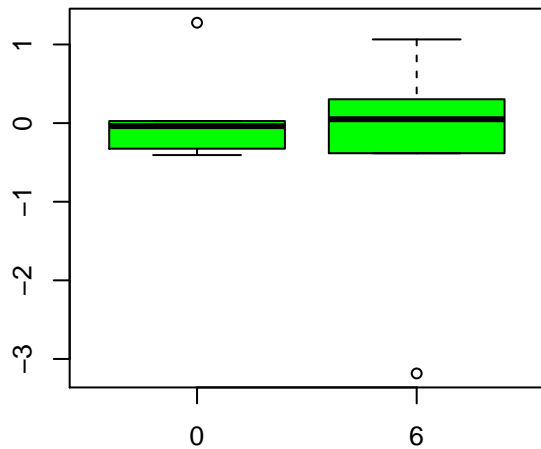
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**2-phenoxyethanol**



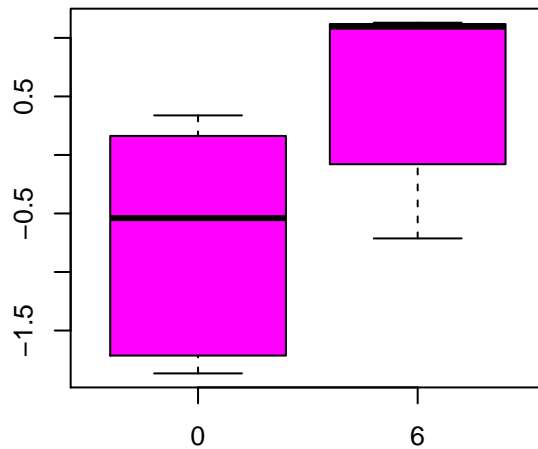
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**2-phenoxyethanol**



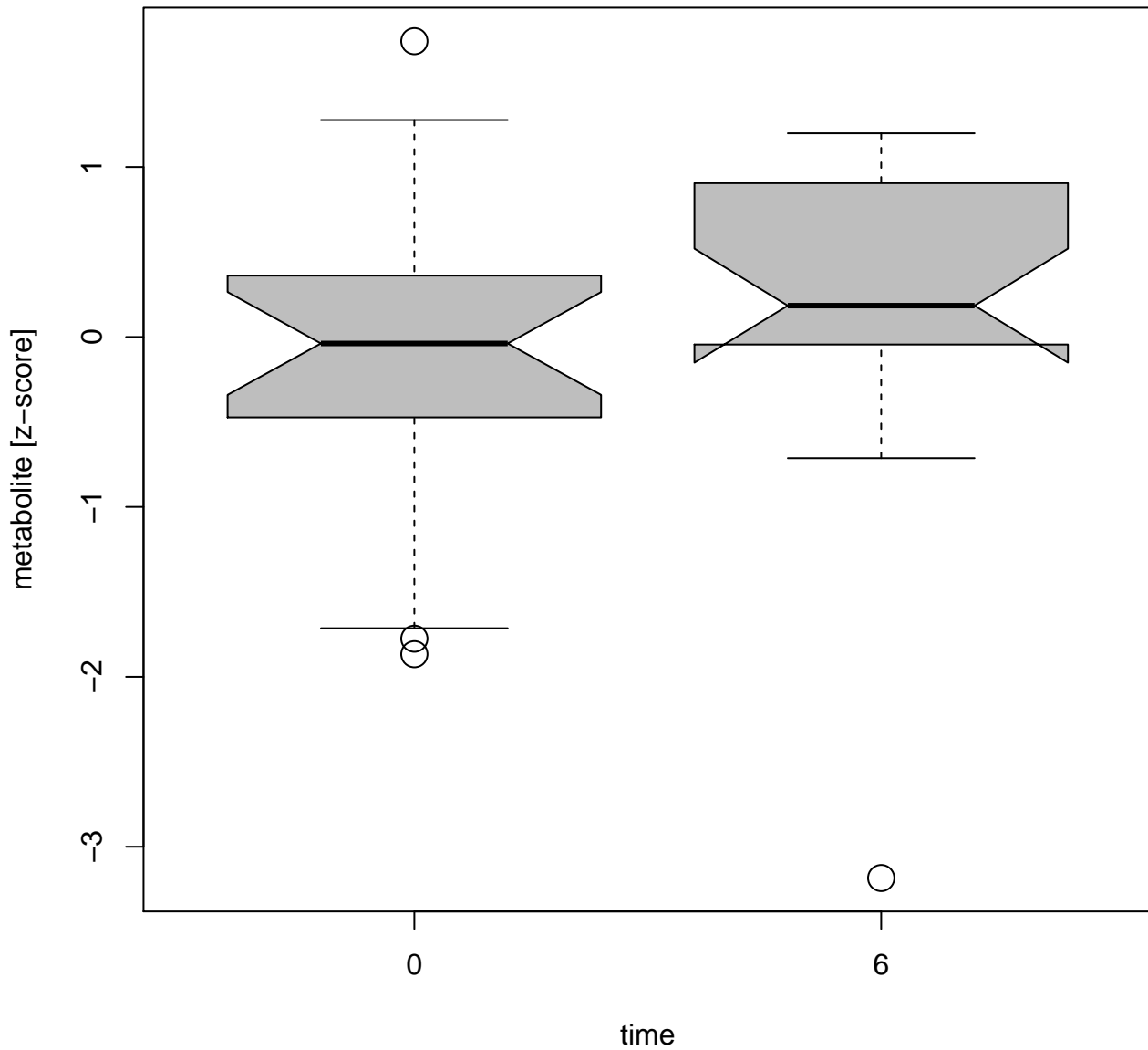
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**2-phenoxyethanol**

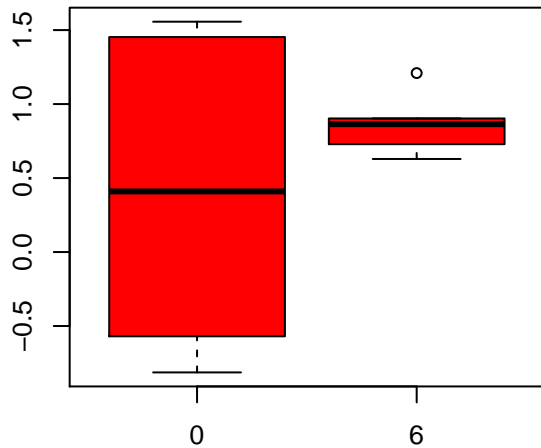


SKOV3

## 2-phenoxyethanol

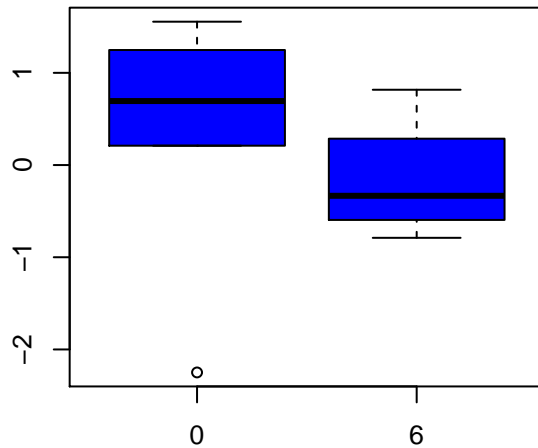


**3-phosphoglycerate**



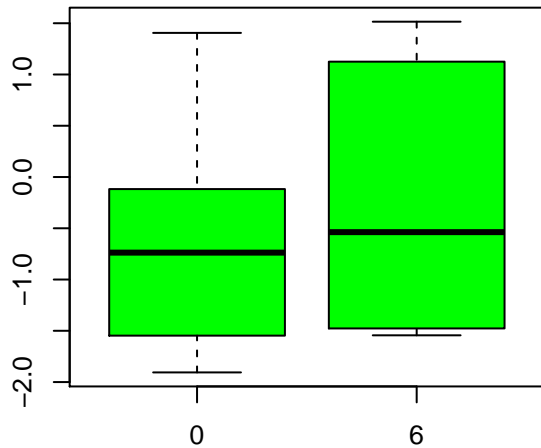
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**3-phosphoglycerate**



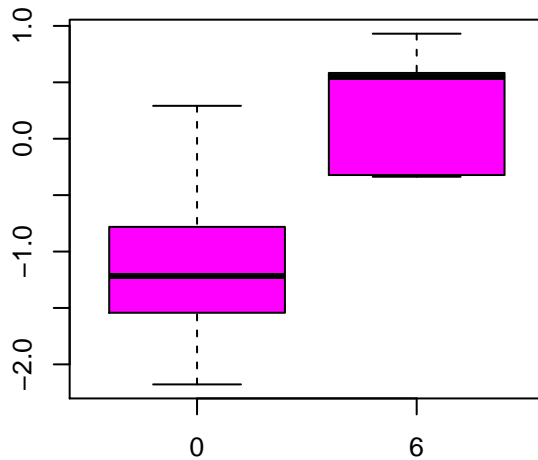
OVCAR

**3-phosphoglycerate**



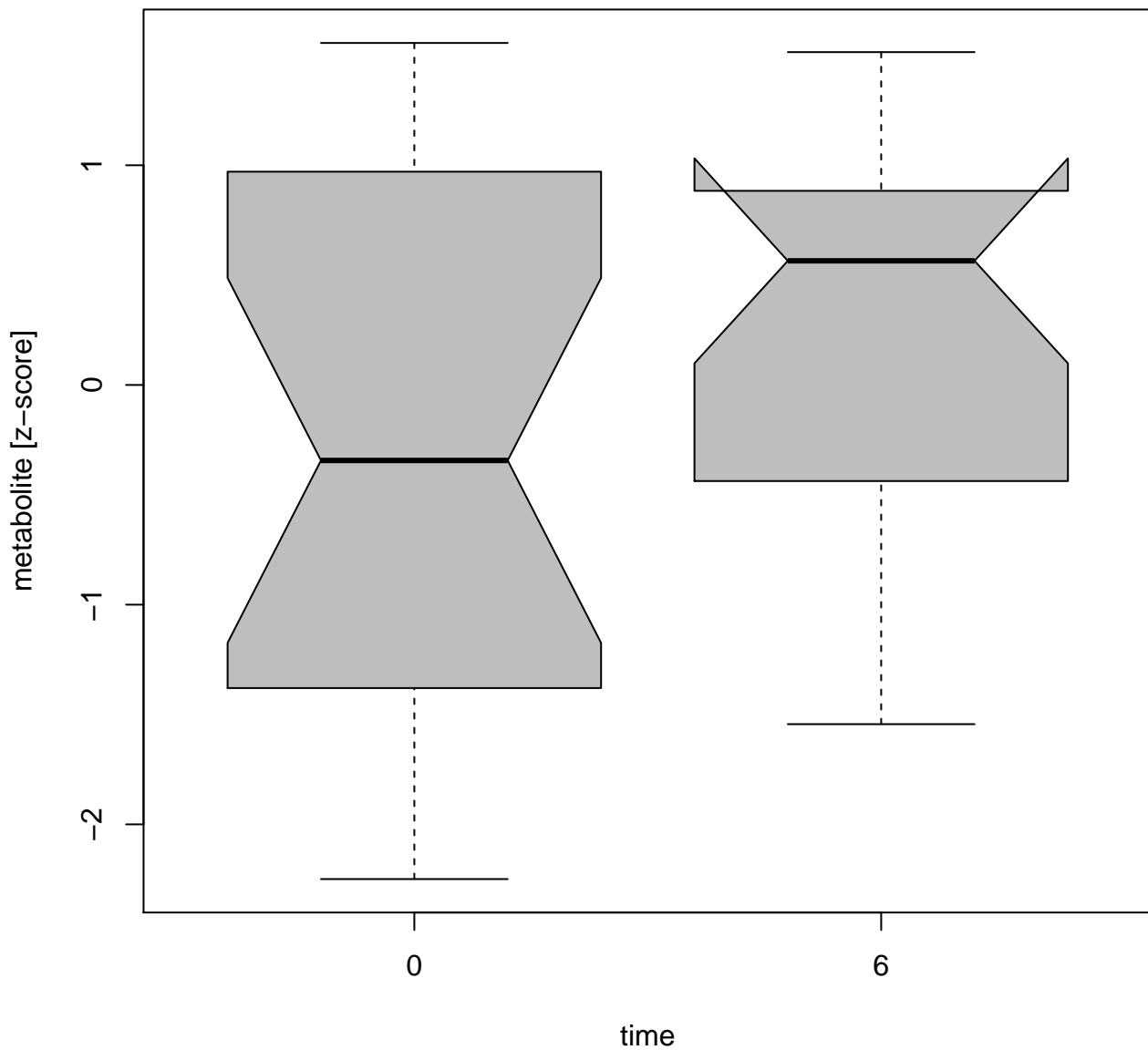
HCT15

**3-phosphoglycerate**

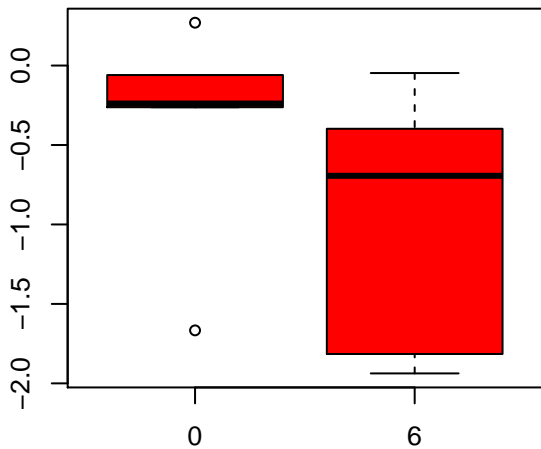


SKOV3

# 3-phosphoglycerate

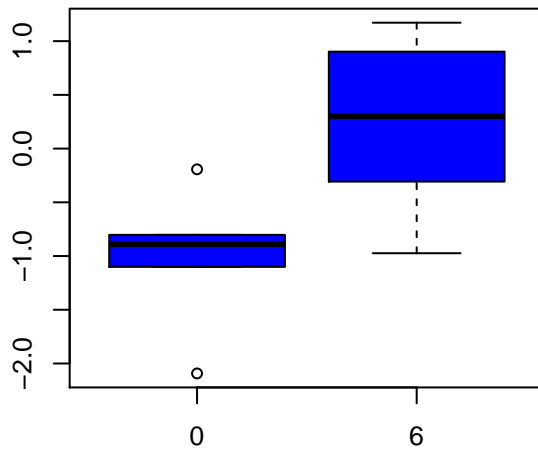


**5-methylthioadenosine (MTA)**



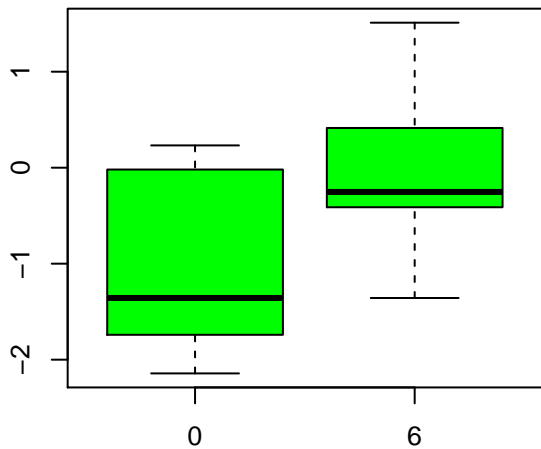
HCT116

**5-methylthioadenosine (MTA)**



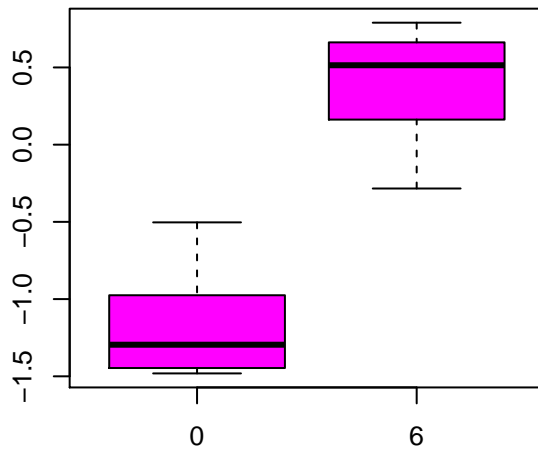
OVCAR

**5-methylthioadenosine (MTA)**



HCT15

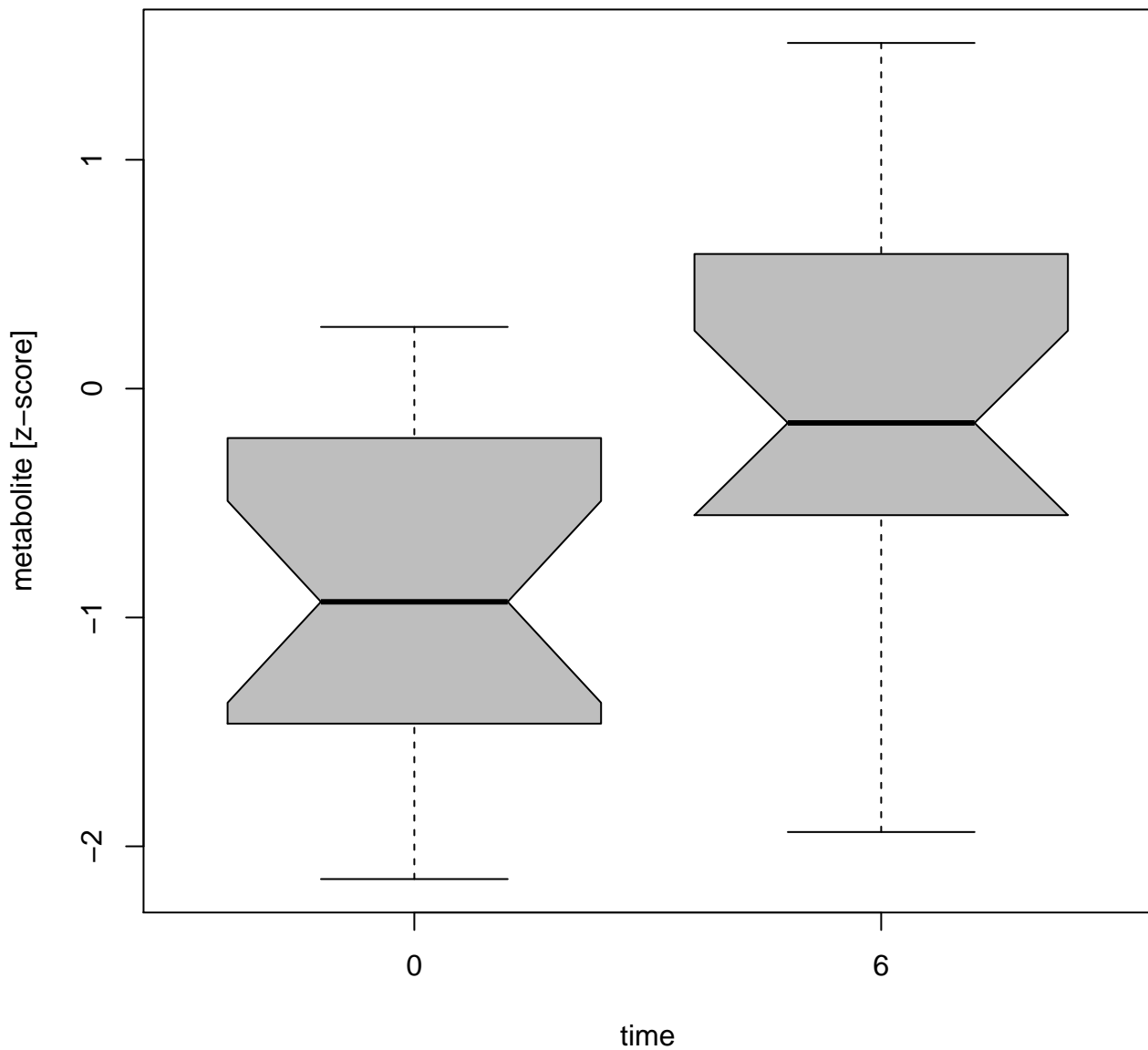
**5-methylthioadenosine (MTA)**



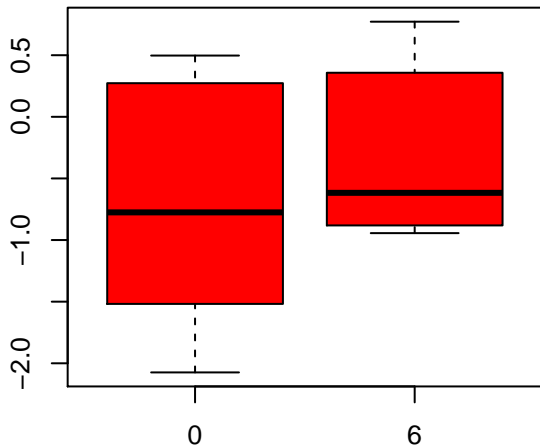
SKOV3



# 5-methylthioadenosine (MTA)

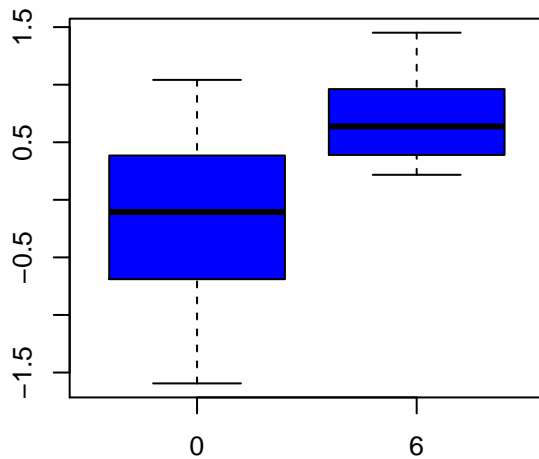


**5-oxoproline**



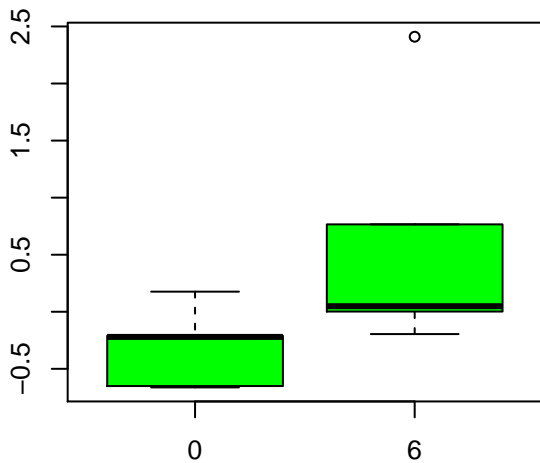
HCT116

**5-oxoproline**



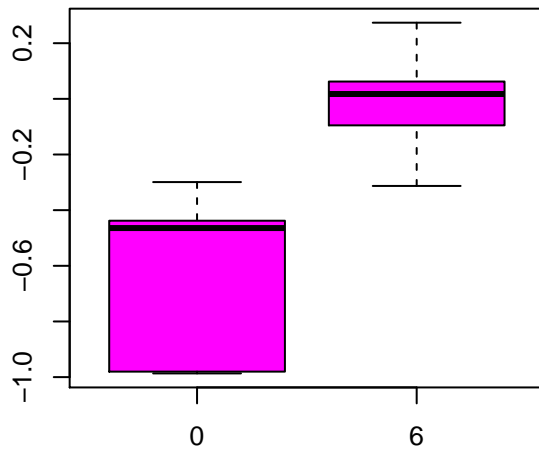
OVCAR

**5-oxoproline**



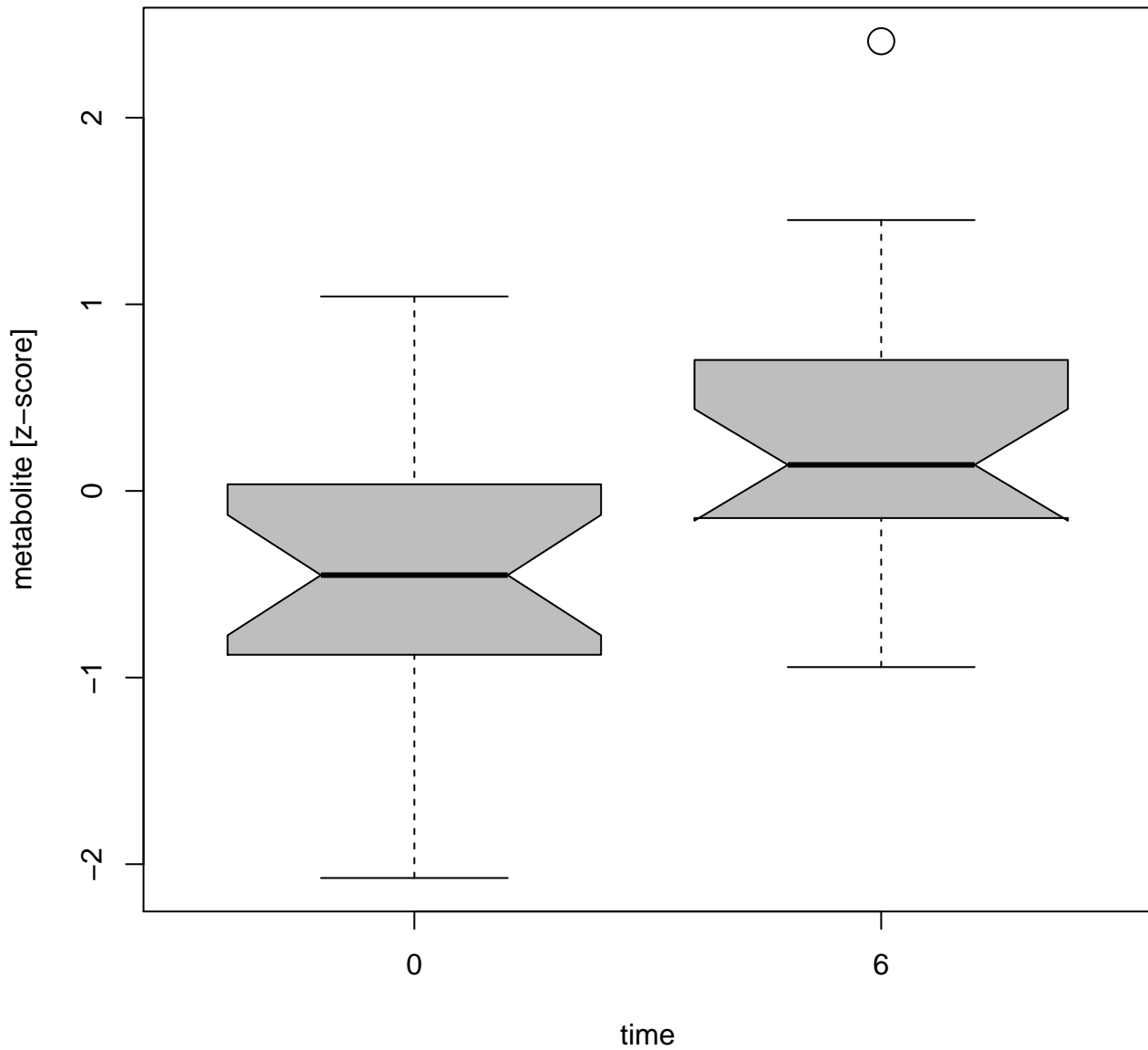
HCT15

**5-oxoproline**

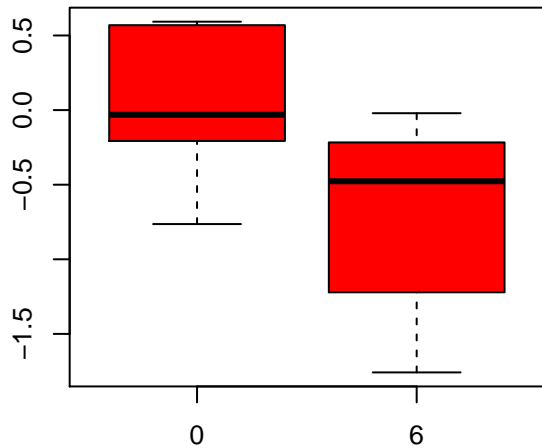


SKOV3

# 5-oxoproline

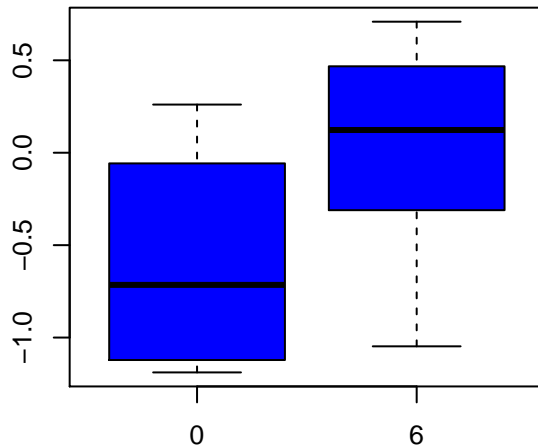


**acetylcarnitine**



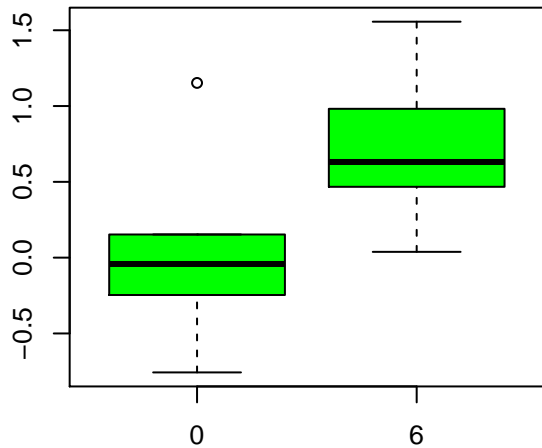
HCT116

**acetylcarnitine**



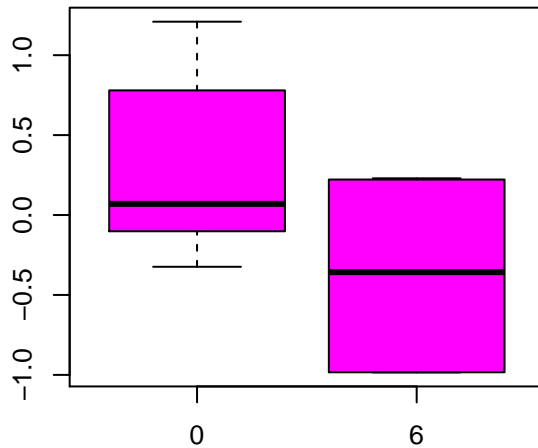
OVCAR

**acetylcarnitine**



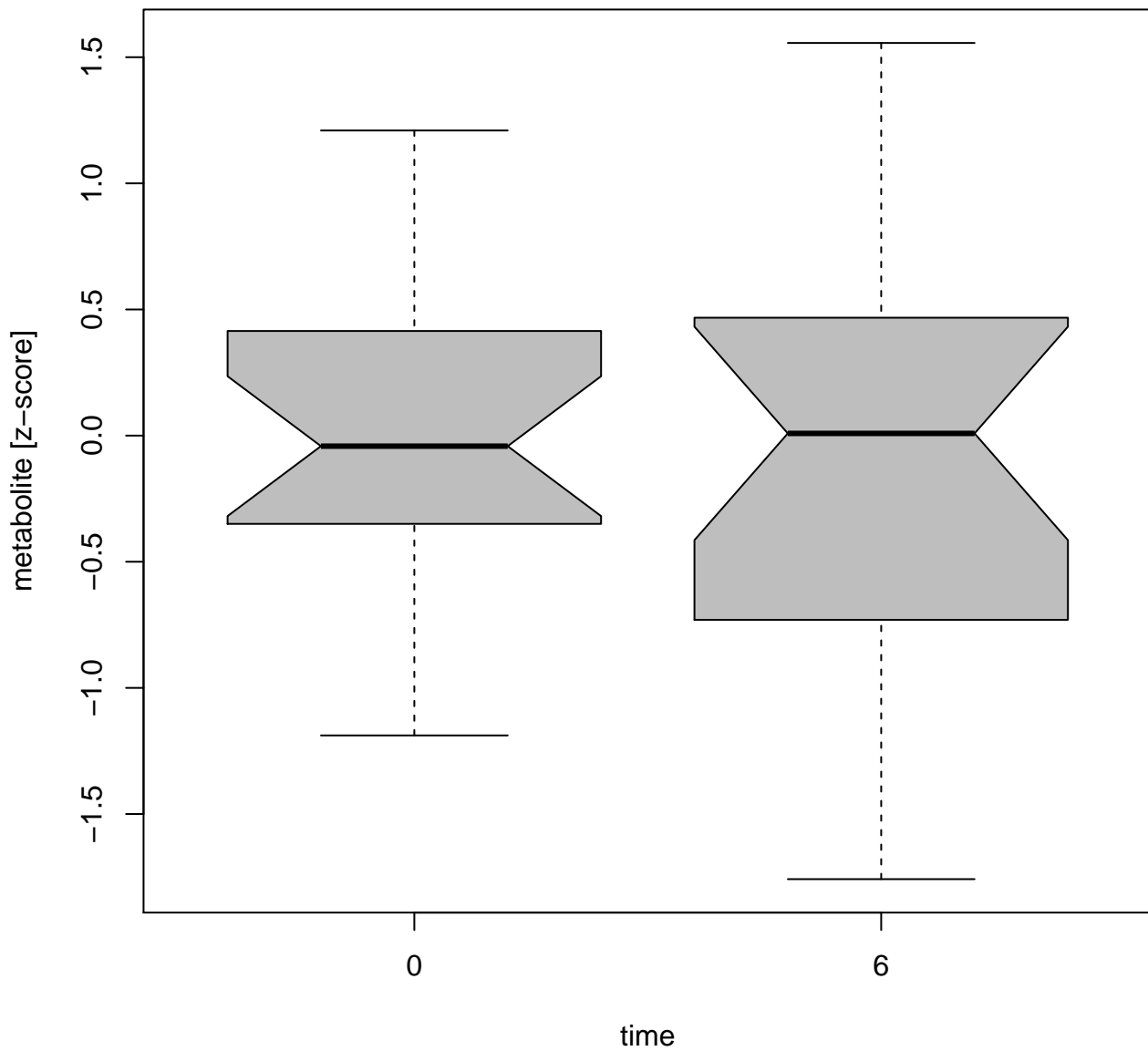
HCT15

**acetylcarnitine**

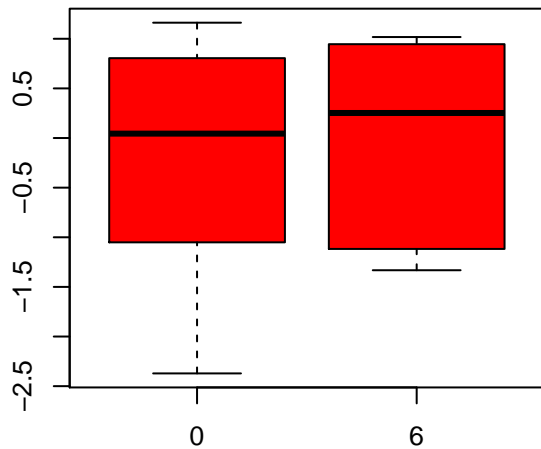


SKOV3

# acetylcarnitine

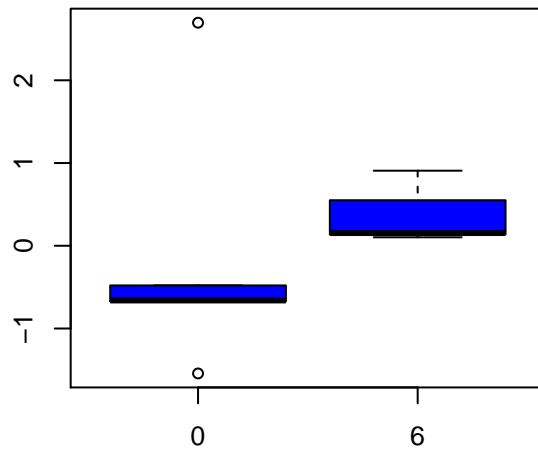


**adenine**



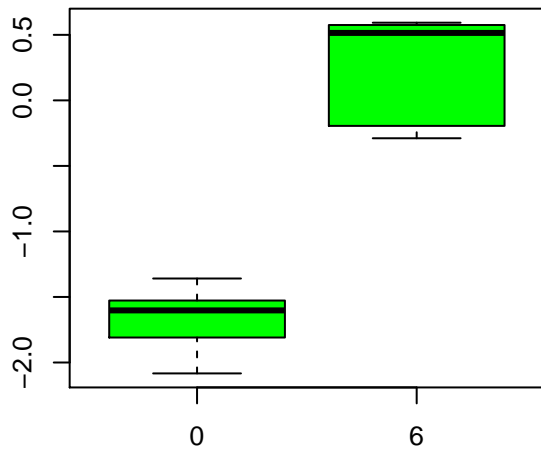
HCT116

**adenine**



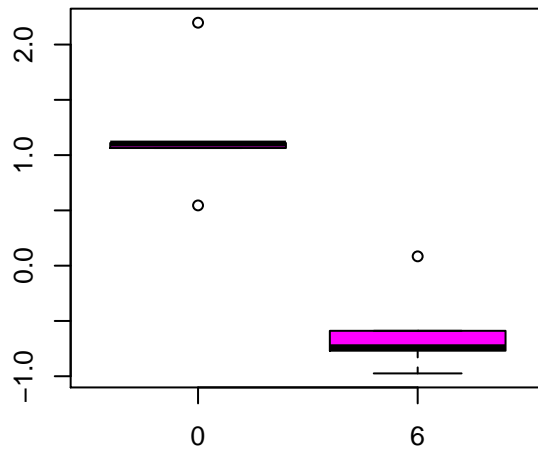
OVCAR

**adenine**



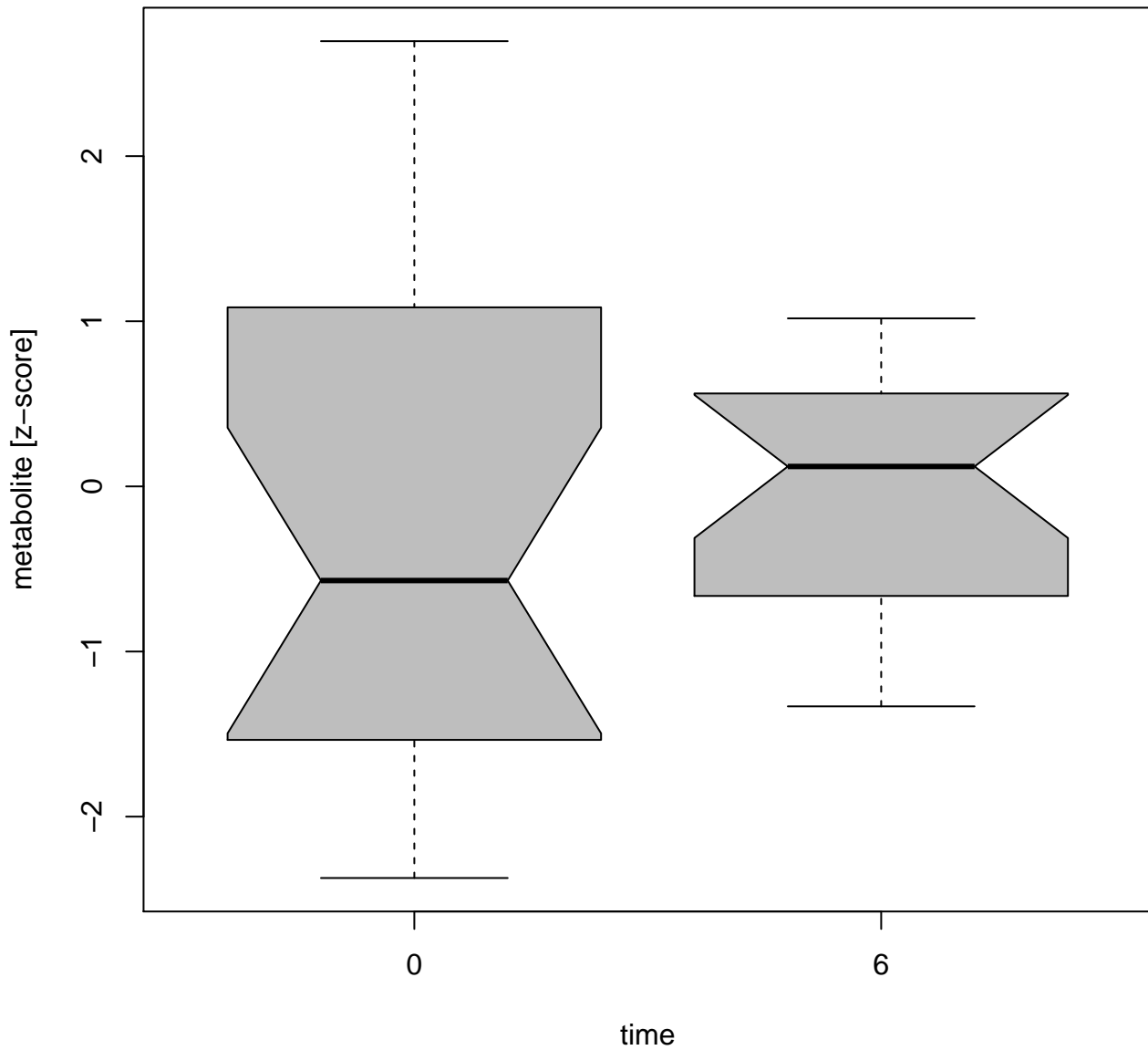
HCT15

**adenine**

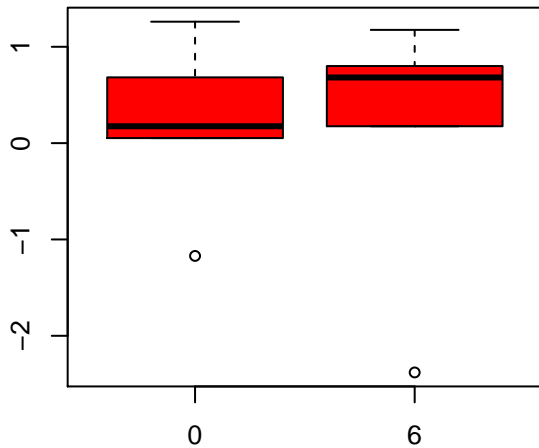


SKOV3

# adenine

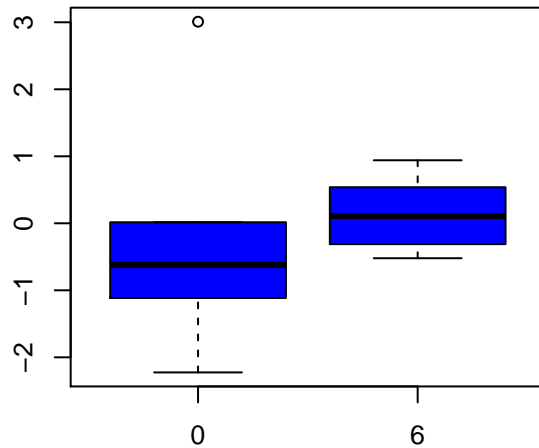


**adenosine**



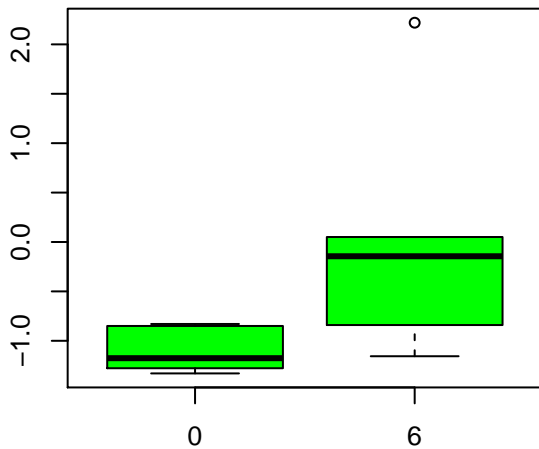
HCT116

**adenosine**



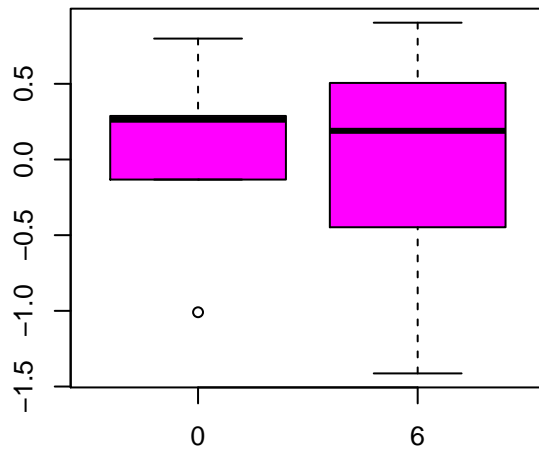
OVCAR

**adenosine**



HCT15

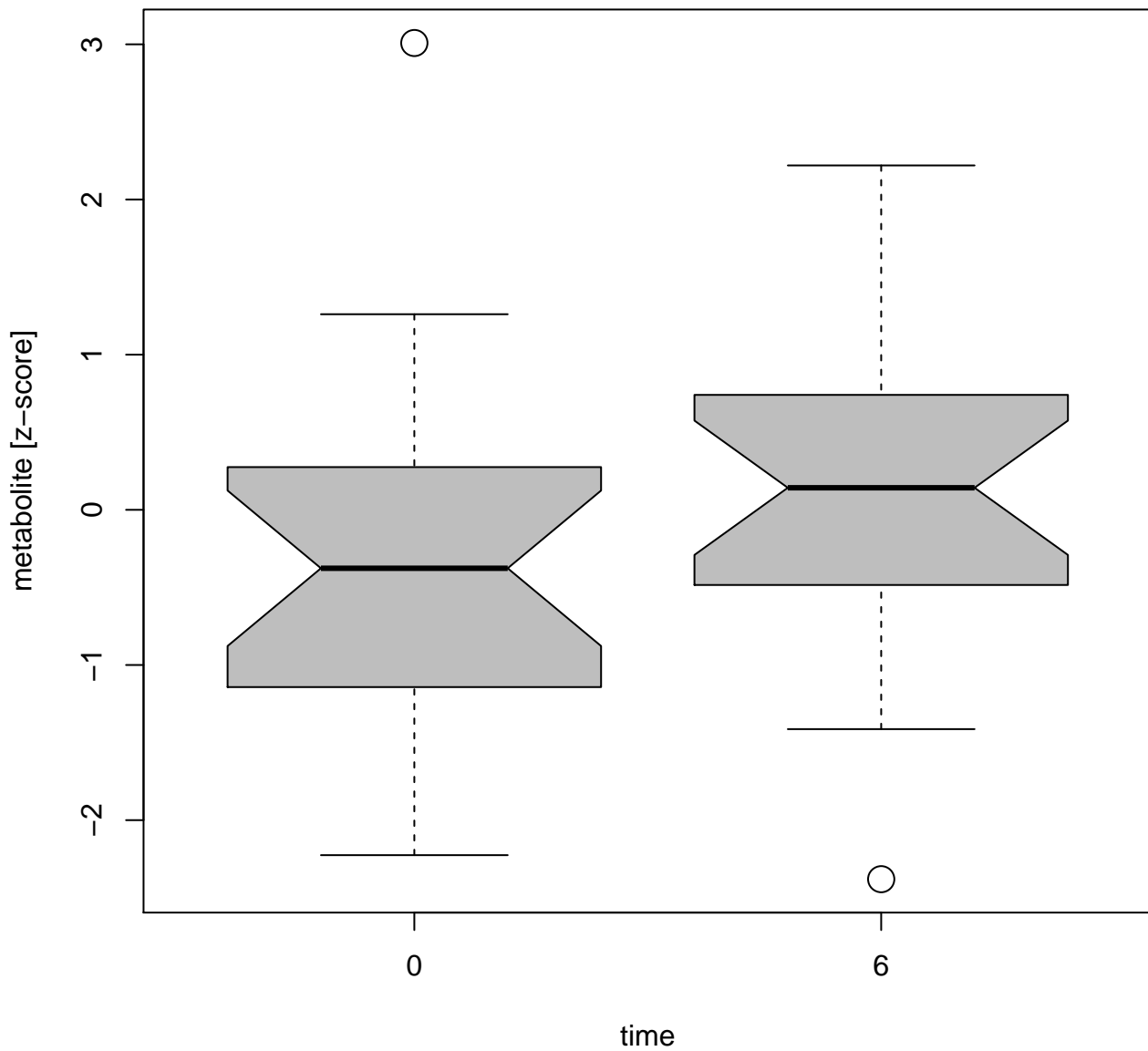
**adenosine**



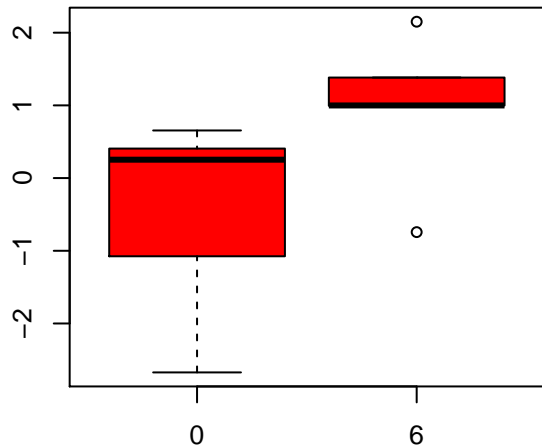
SKOV3



# adenosine

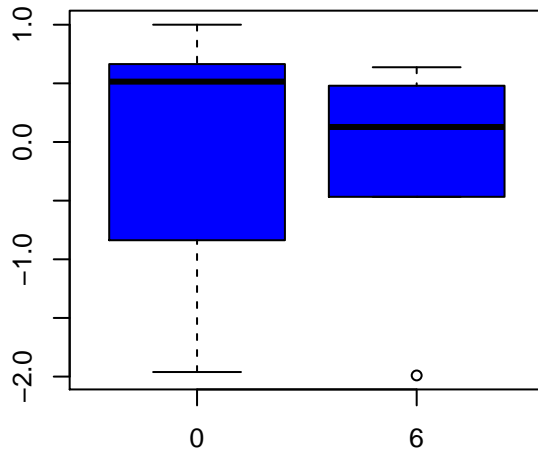


adenosine 3'-monophosphate (3'-AMP)



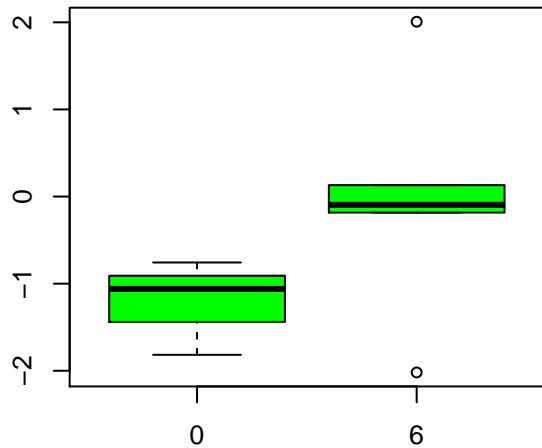
HCT116

adenosine 3'-monophosphate (3'-AMP)



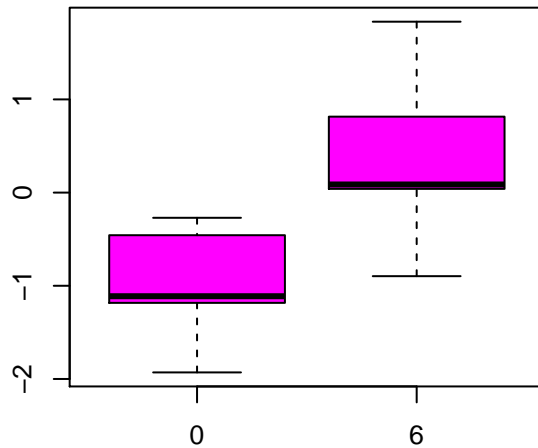
OVCAR

adenosine 3'-monophosphate (3'-AMP)



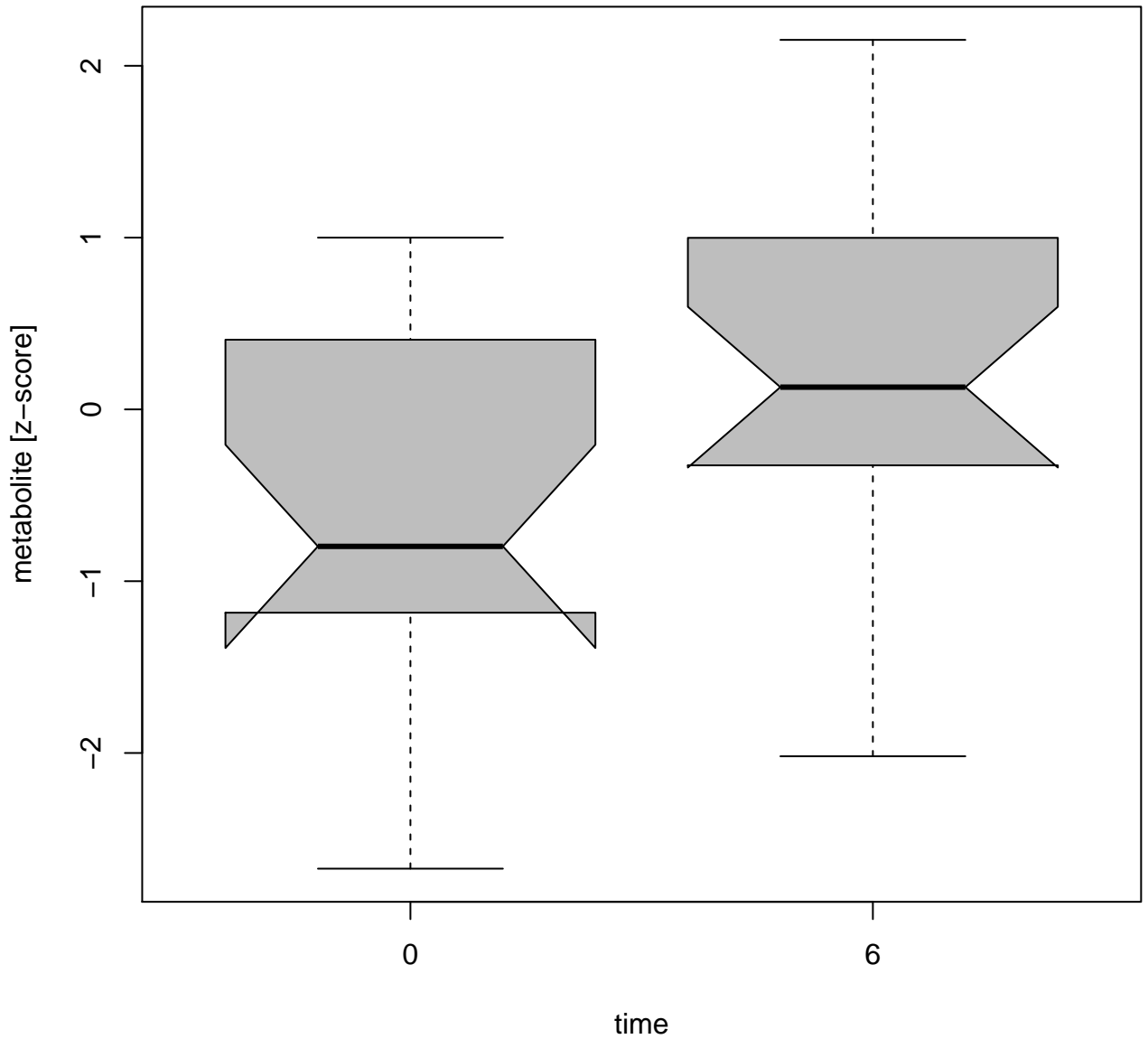
HCT15

adenosine 3'-monophosphate (3'-AMP)

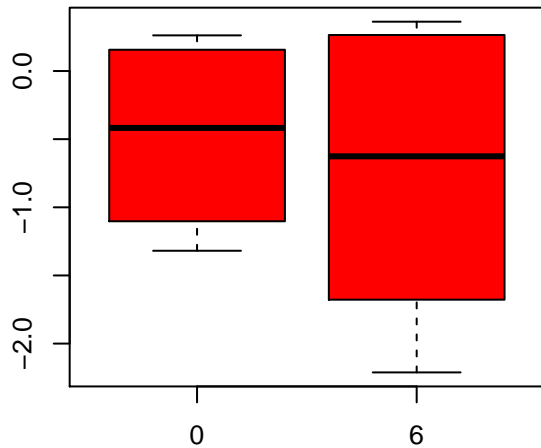


SKOV3

# adenosine 3'-monophosphate (3'-AMP)

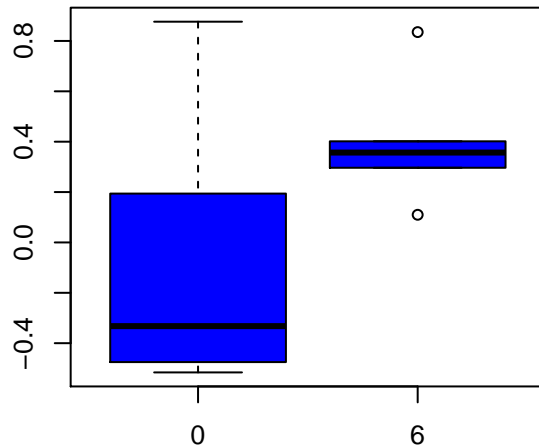


**adenosine 5'-diphosphate (ADP)**



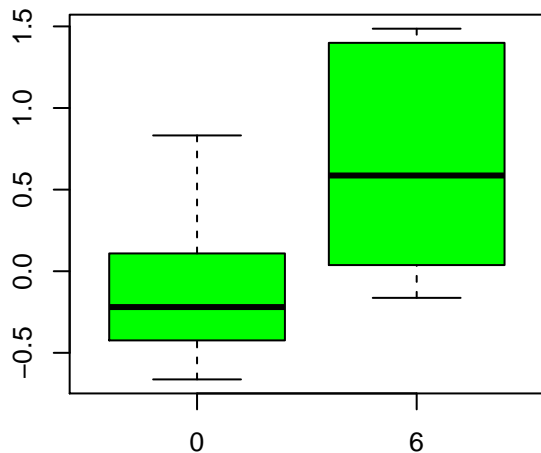
HCT116

**adenosine 5'-diphosphate (ADP)**



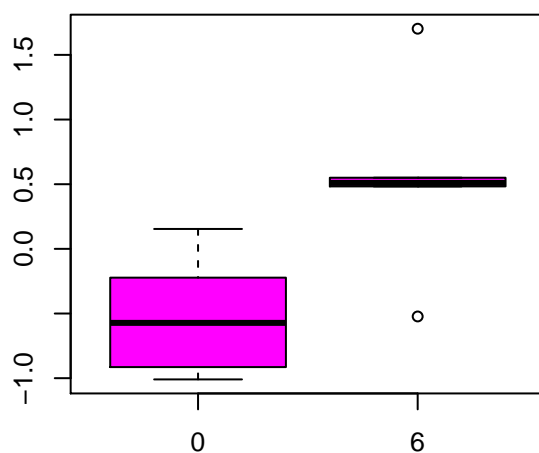
OVCAR

**adenosine 5'-diphosphate (ADP)**



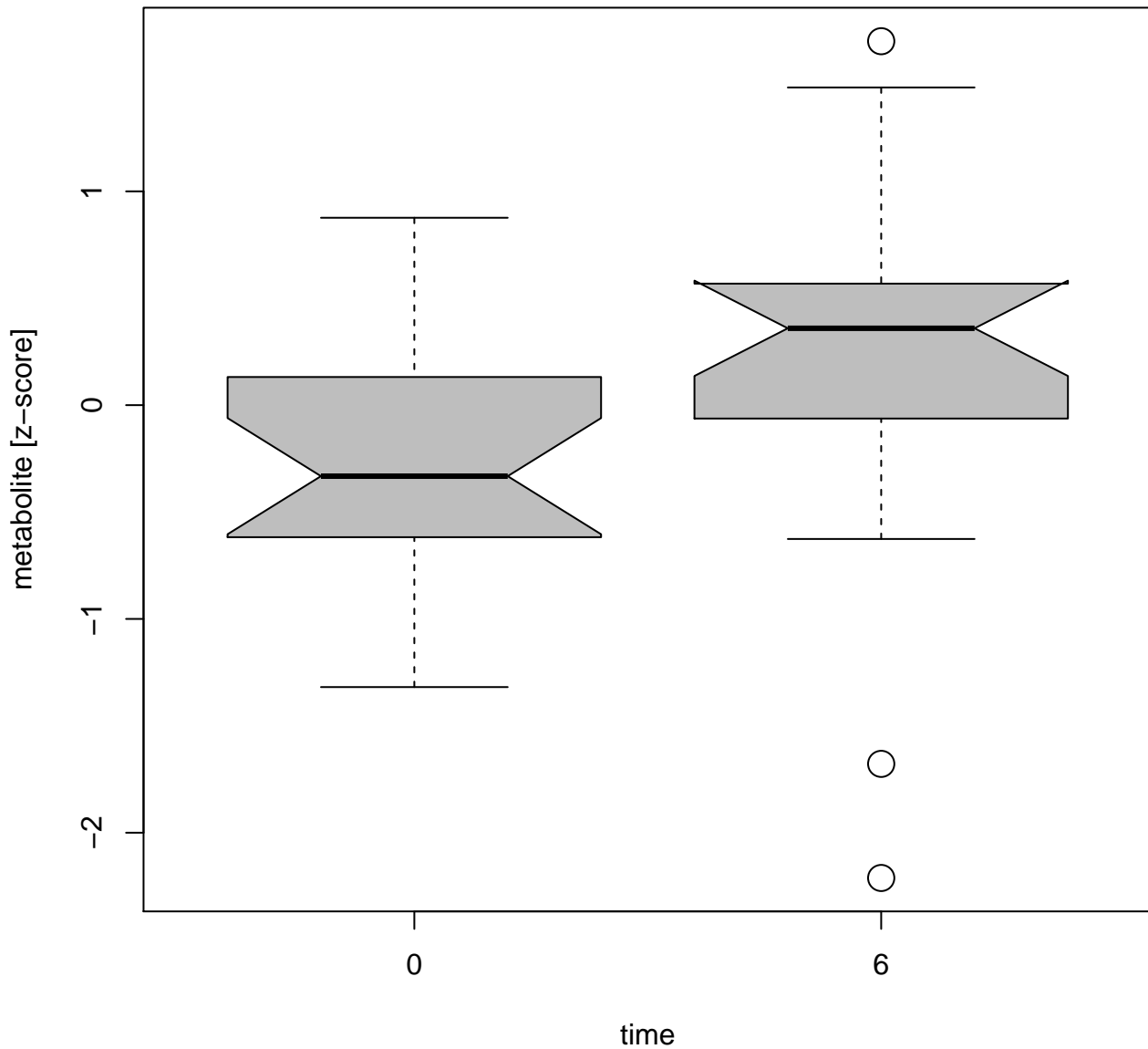
HCT15

**adenosine 5'-diphosphate (ADP)**

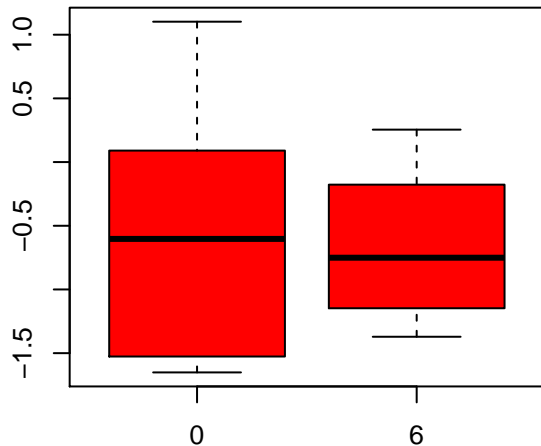


SKOV3

# adenosine 5'-diphosphate (ADP)

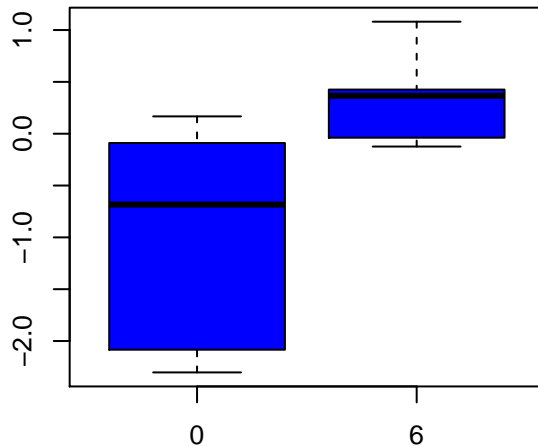


**adenosine 5'-monophosphate (AMP)**



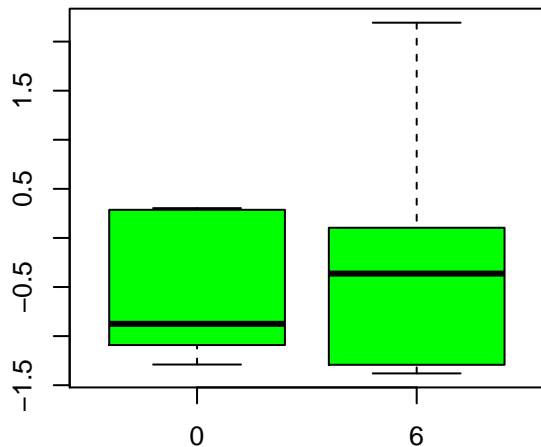
HCT116

**adenosine 5'-monophosphate (AMP)**



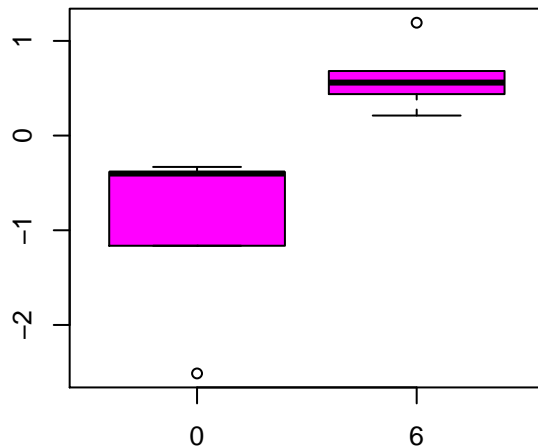
OVCAR

**adenosine 5'-monophosphate (AMP)**



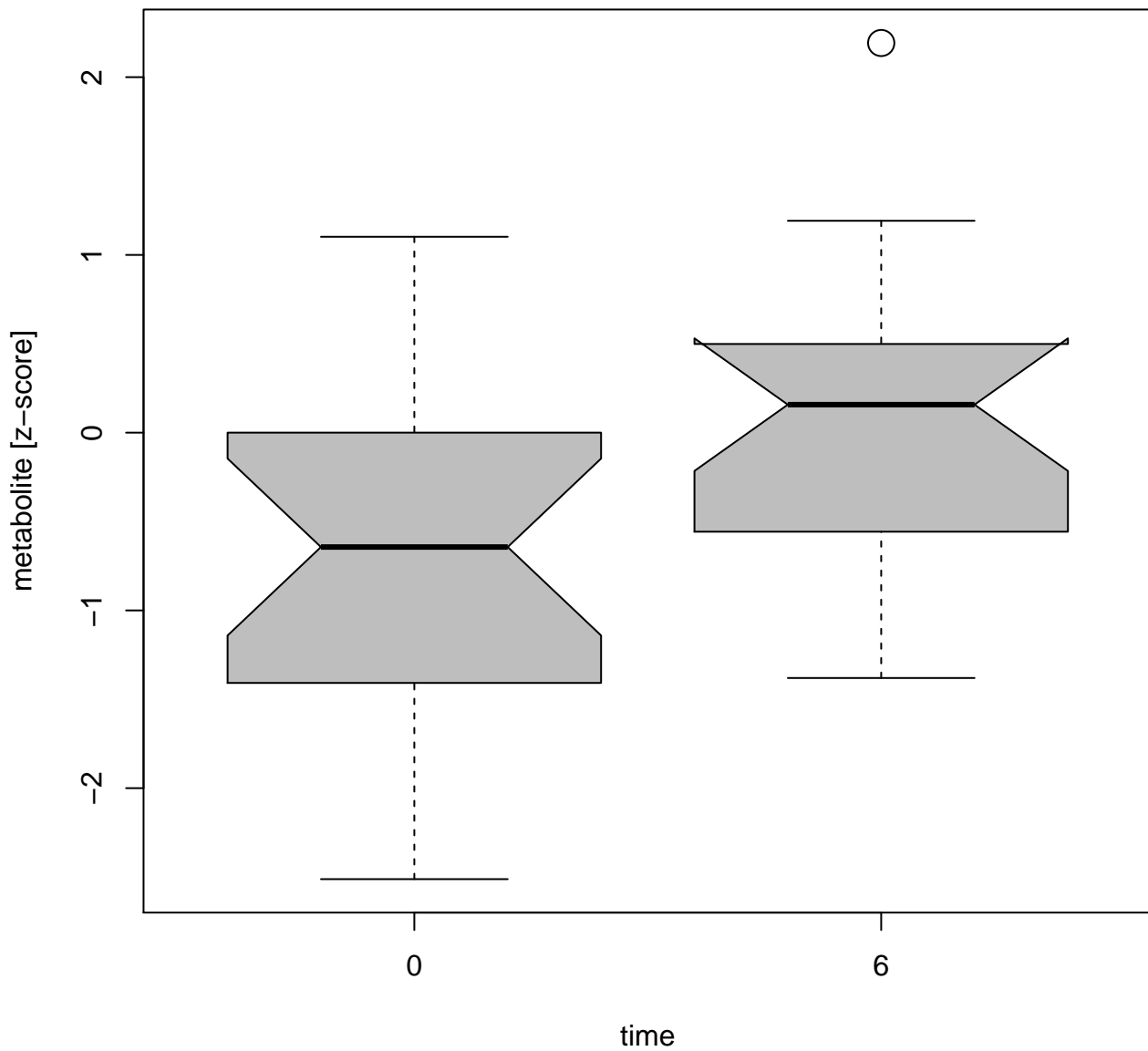
HCT15

**adenosine 5'-monophosphate (AMP)**

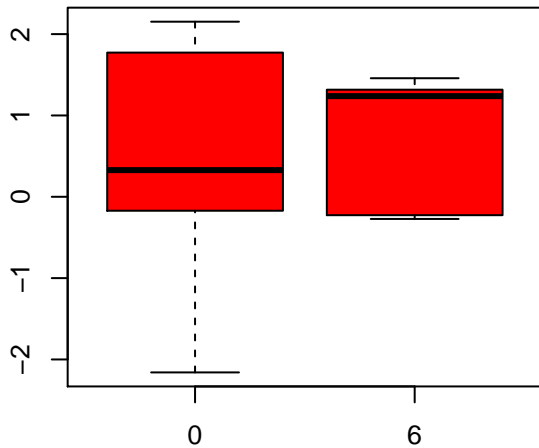


SKOV3

# adenosine 5'-monophosphate (AMP)

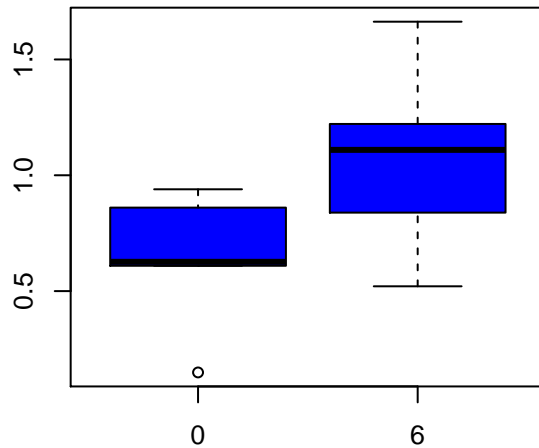


**adenosine 5'diphosphoribose**



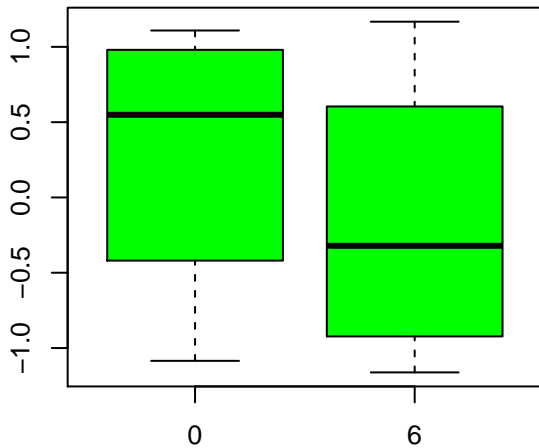
HCT116

**adenosine 5'diphosphoribose**



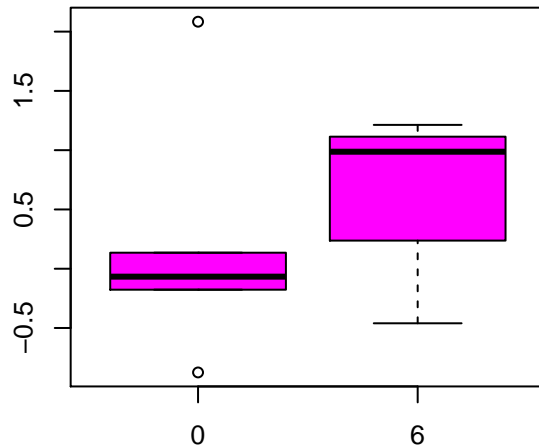
OVCAR

**adenosine 5'diphosphoribose**



HCT15

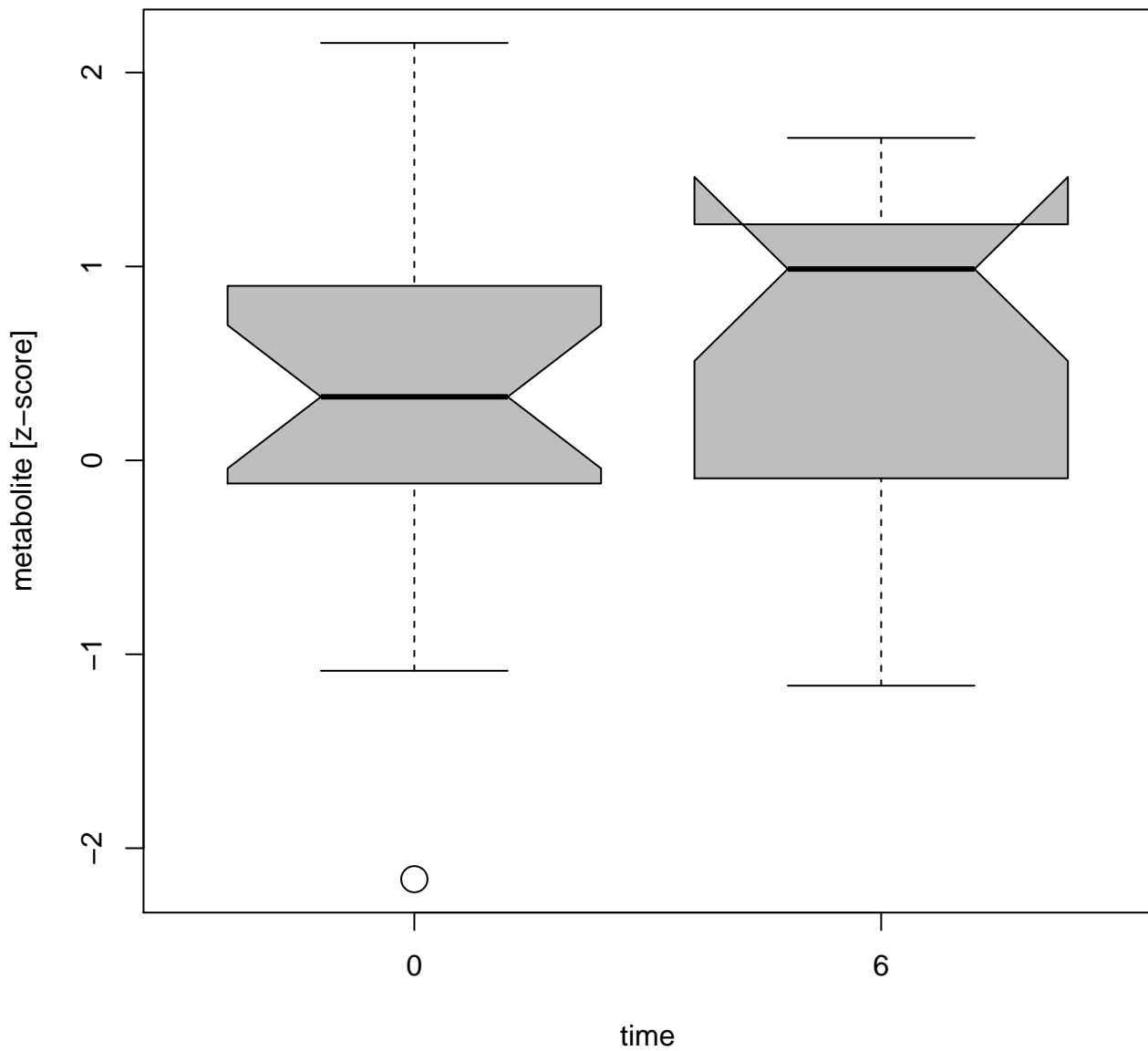
**adenosine 5'diphosphoribose**



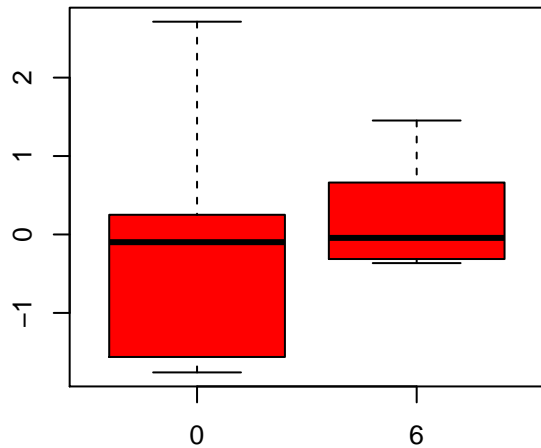
SKOV3



# adenosine 5'diphosphoribose

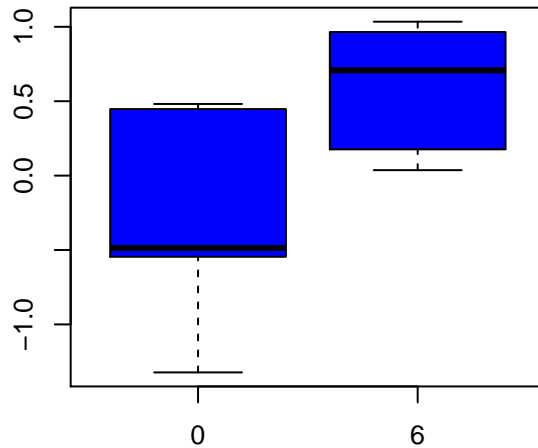


**alanine**



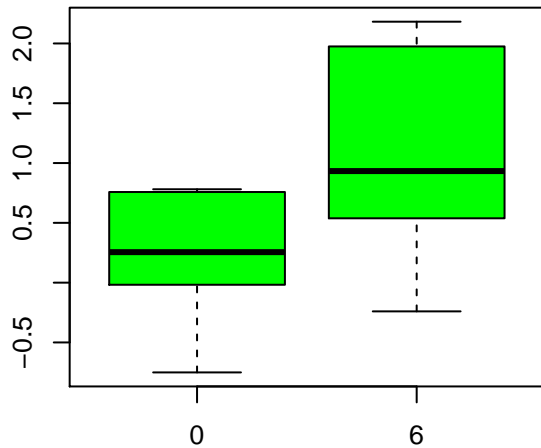
HCT116

**alanine**



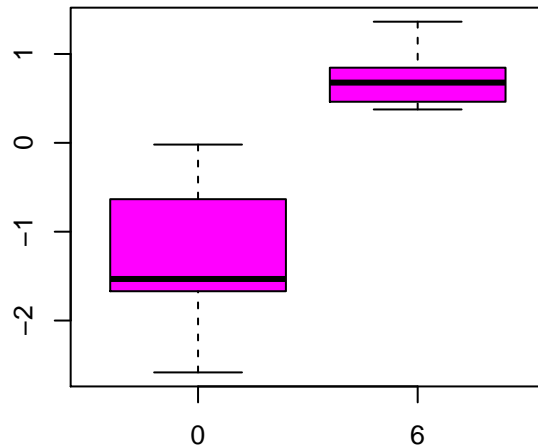
OVCAR

**alanine**



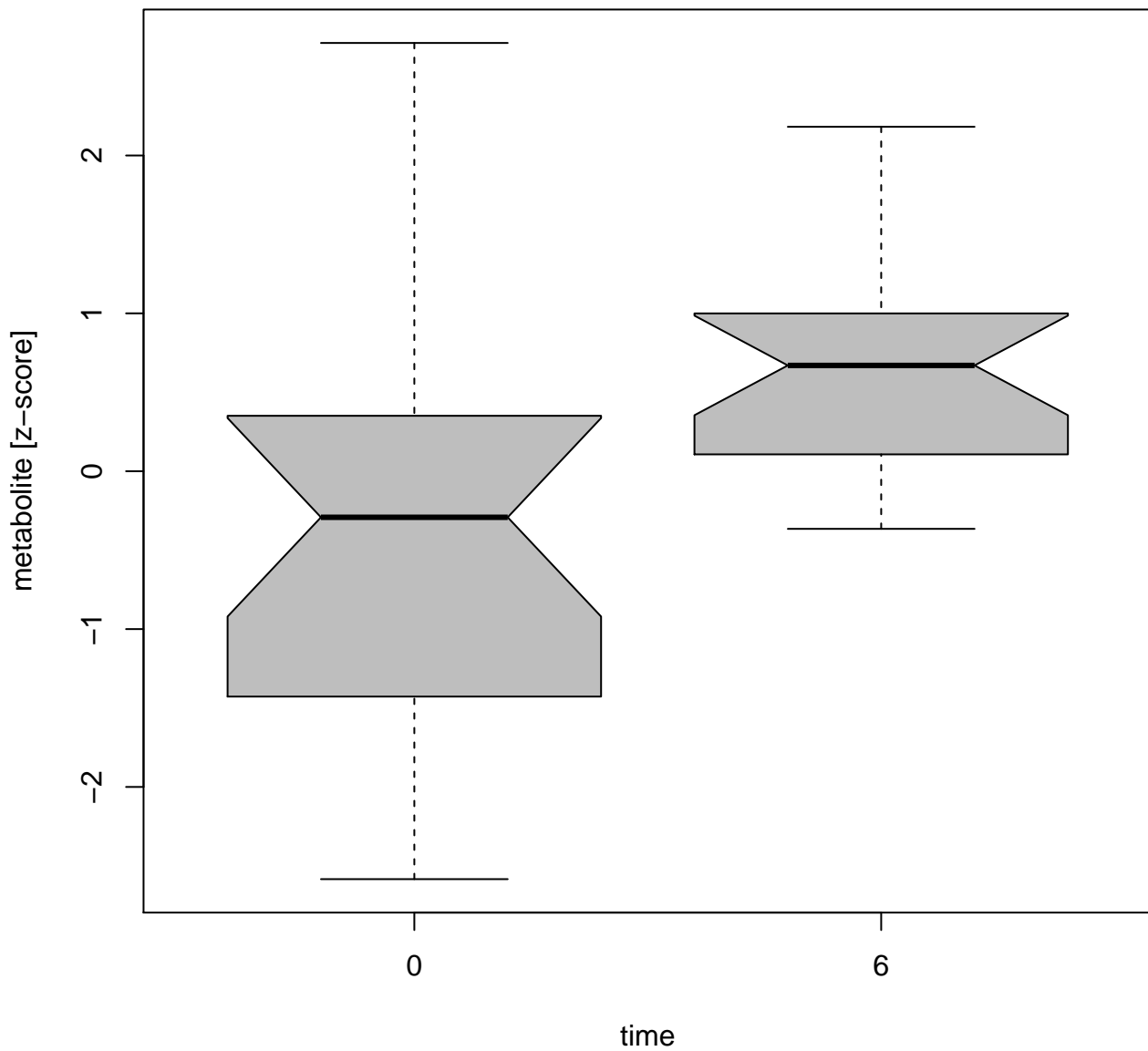
HCT15

**alanine**

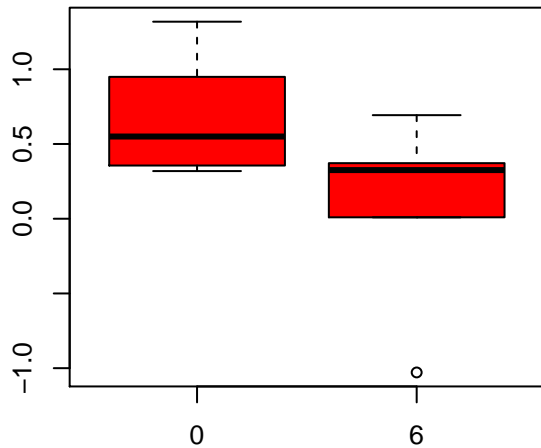


SKOV3

# alanine

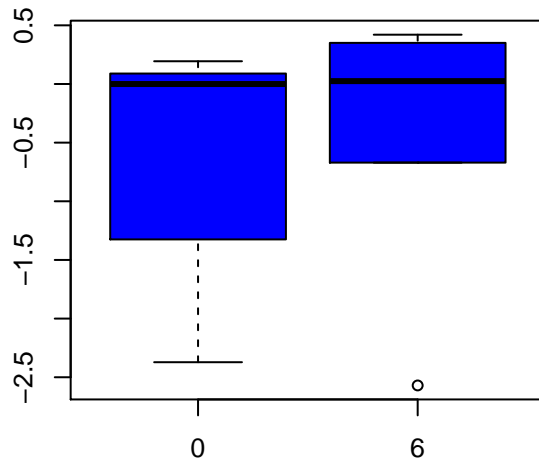


**alanylleucine**



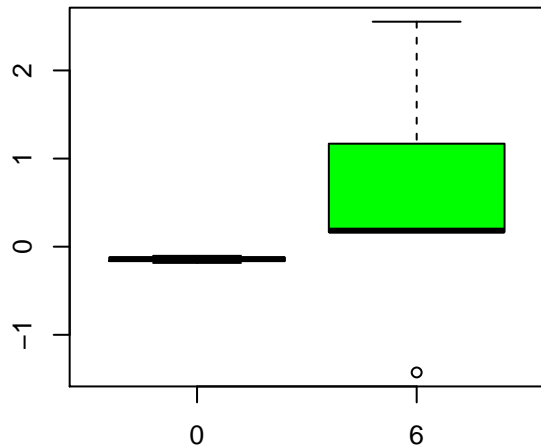
HCT116

**alanylleucine**



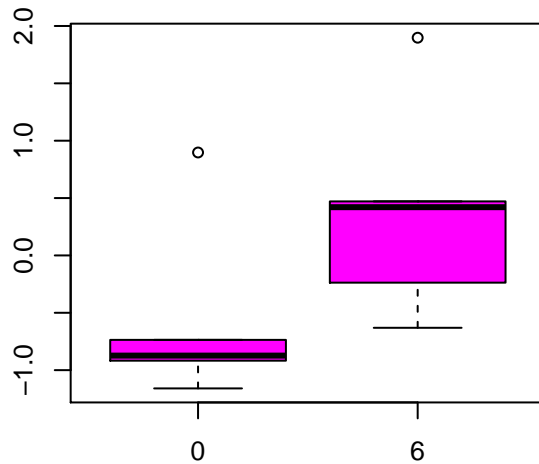
OVCAR

**alanylleucine**



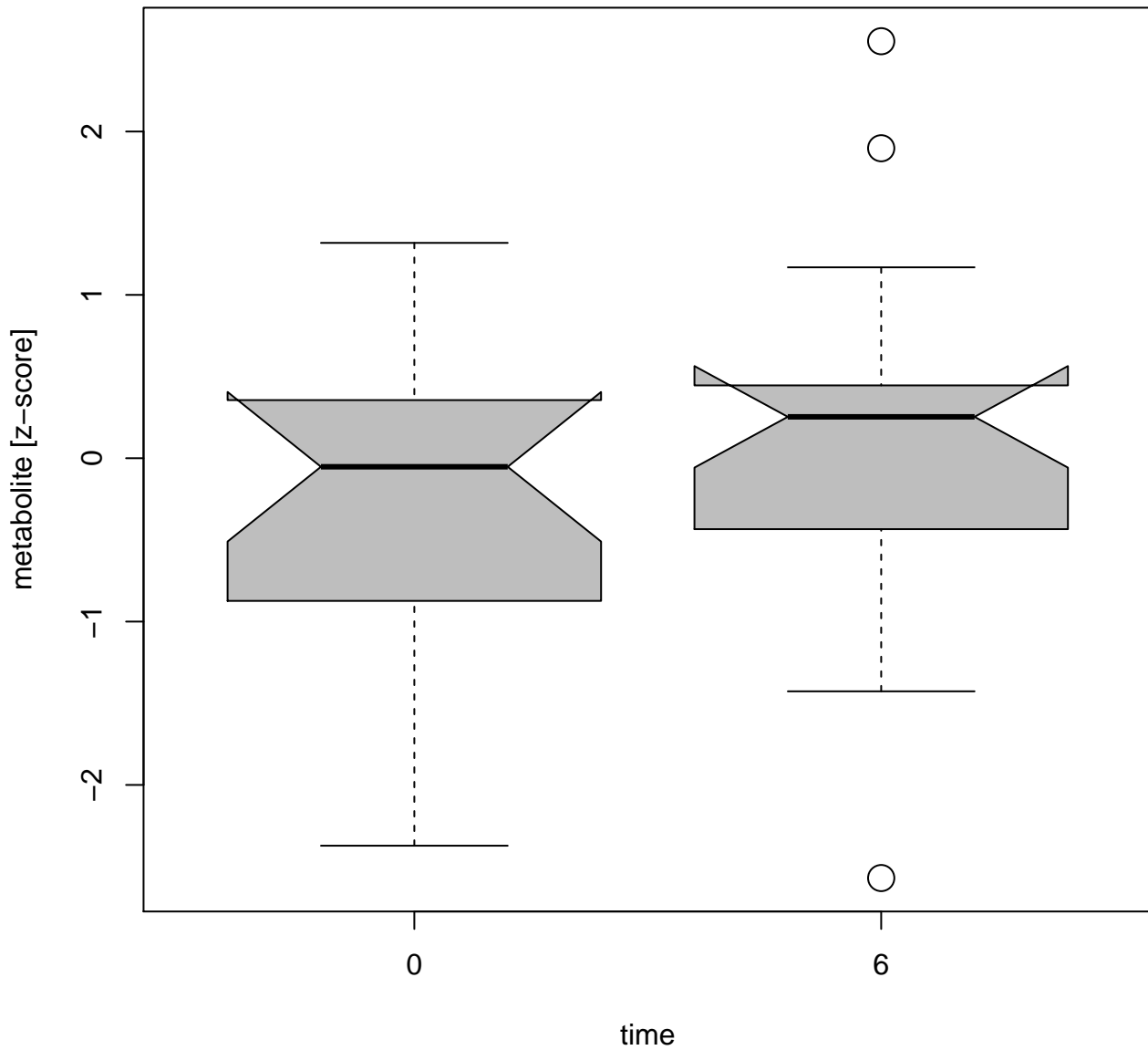
HCT15

**alanylleucine**

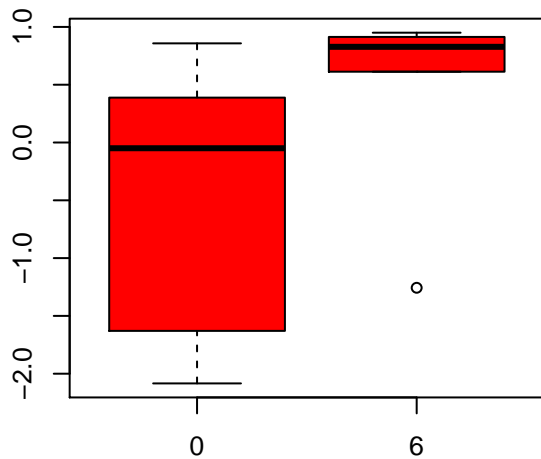


SKOV3

# alanylleucine

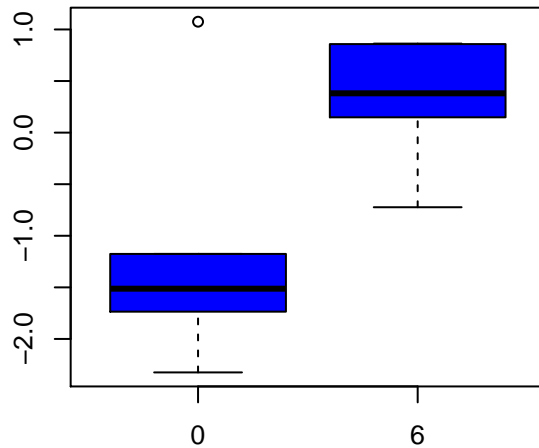


**arachidonate (20:4n6)**



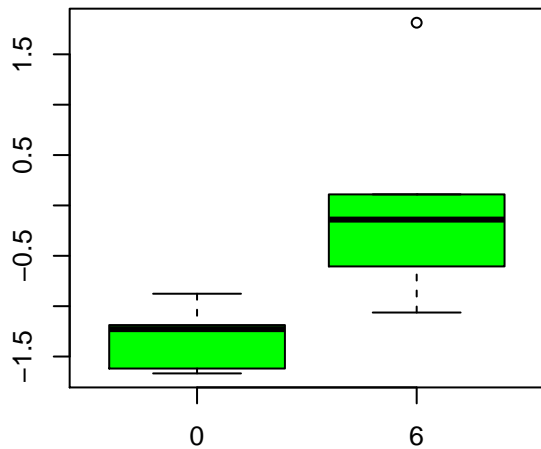
HCT116

**arachidonate (20:4n6)**



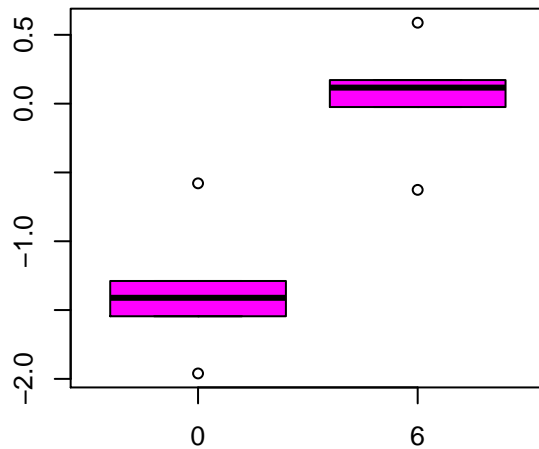
OVCAR

**arachidonate (20:4n6)**



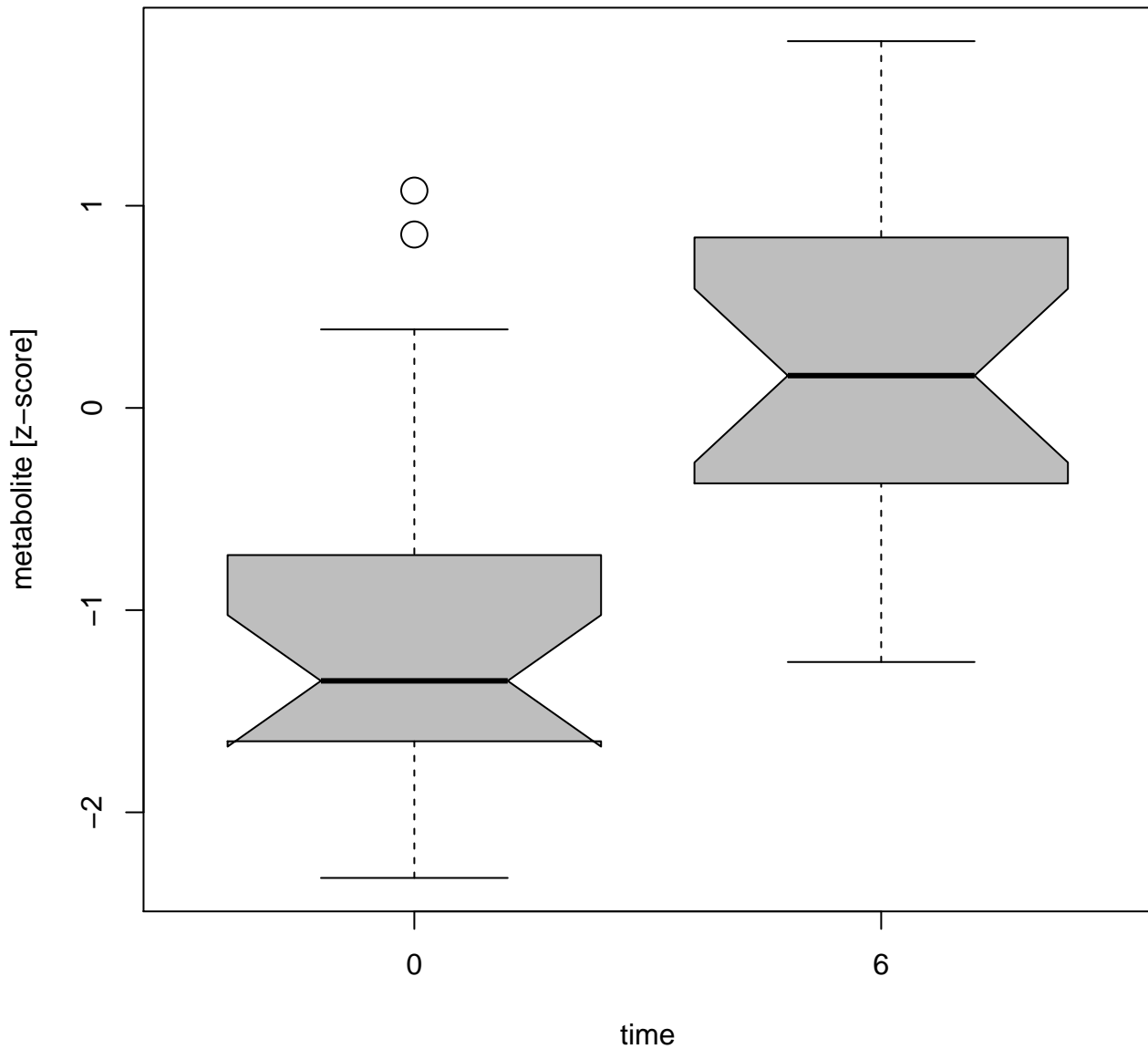
HCT15

**arachidonate (20:4n6)**

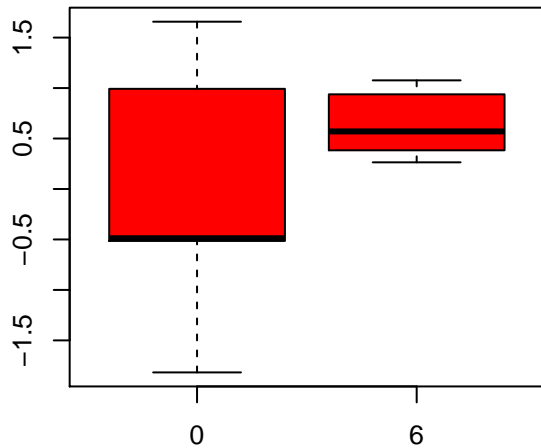


SKOV3

# arachidonate (20:4n6)

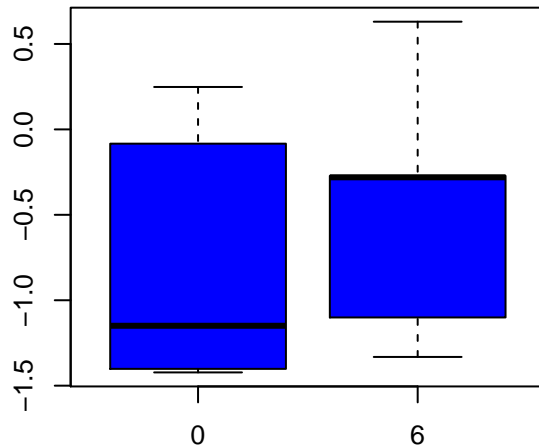


**arginine**



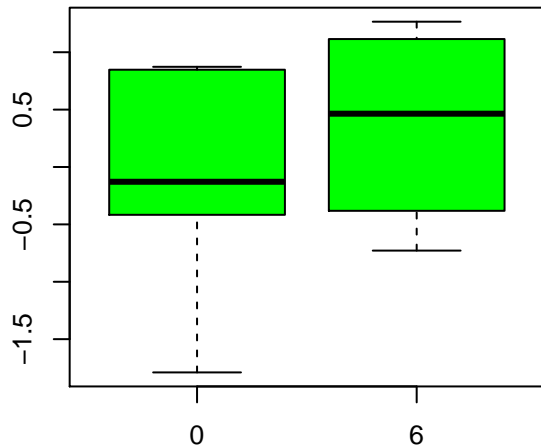
HCT116

**arginine**



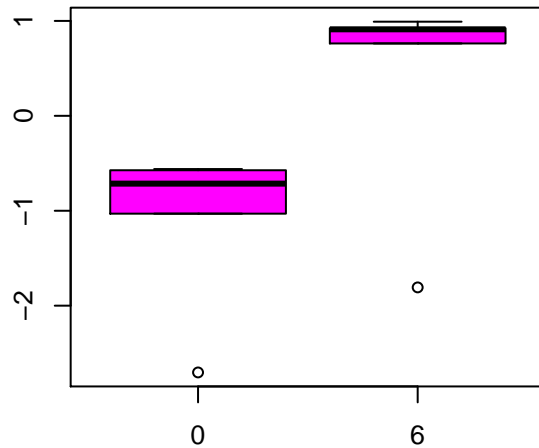
OVCAR

**arginine**



HCT15

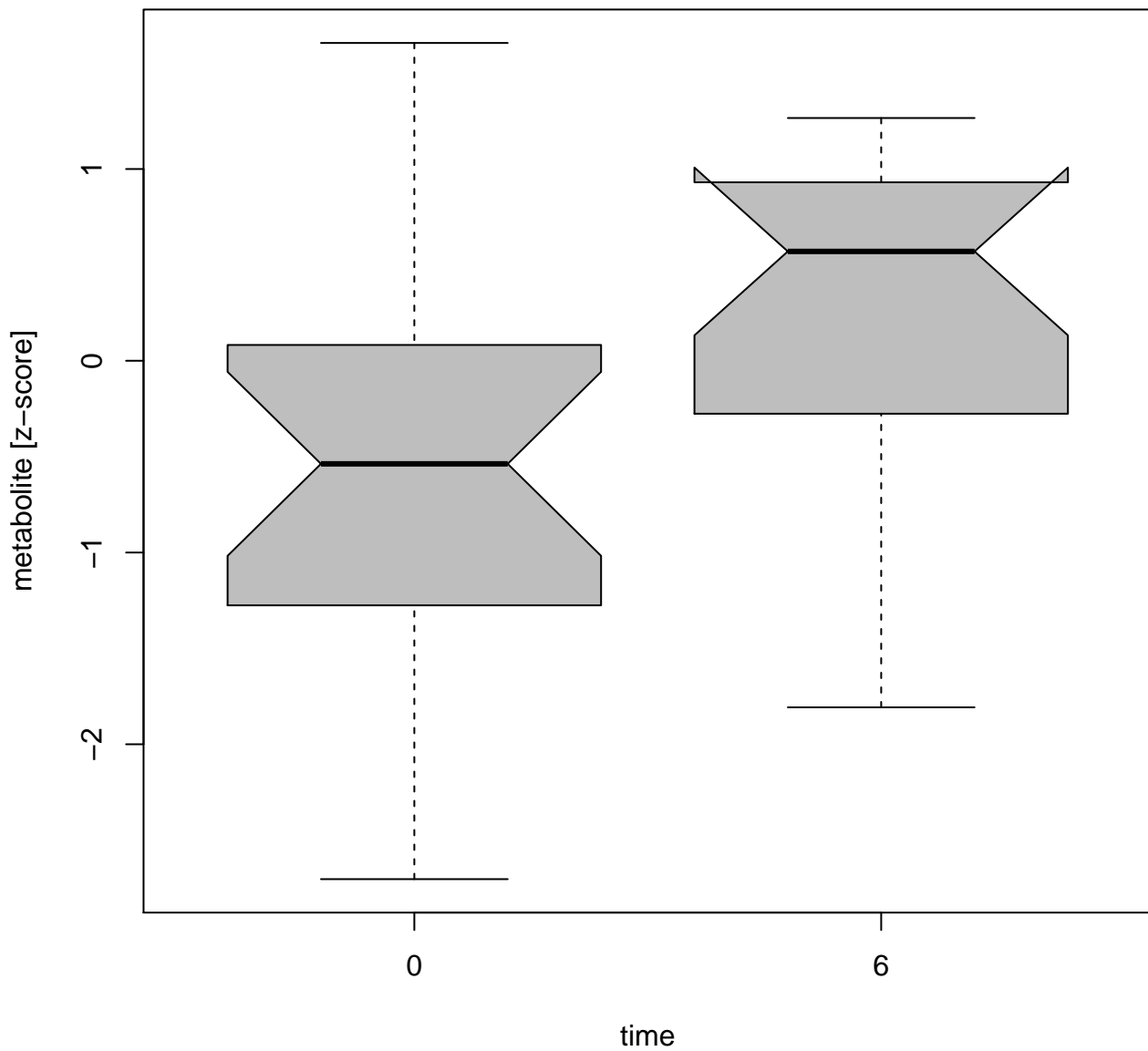
**arginine**



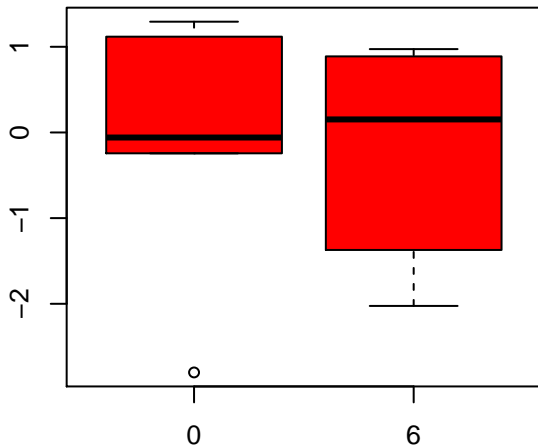
SKOV3



# arginine

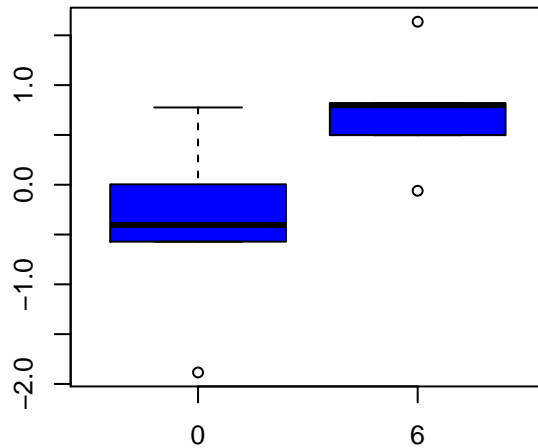


**aspartate**



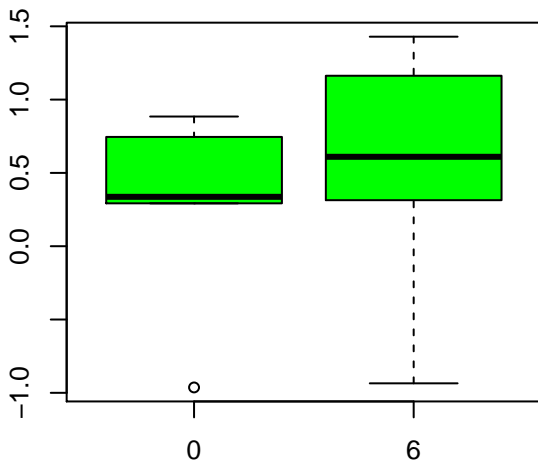
HCT116

**aspartate**



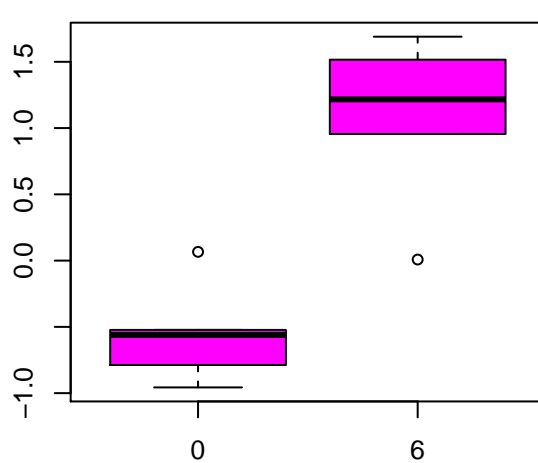
OVCAR

**aspartate**



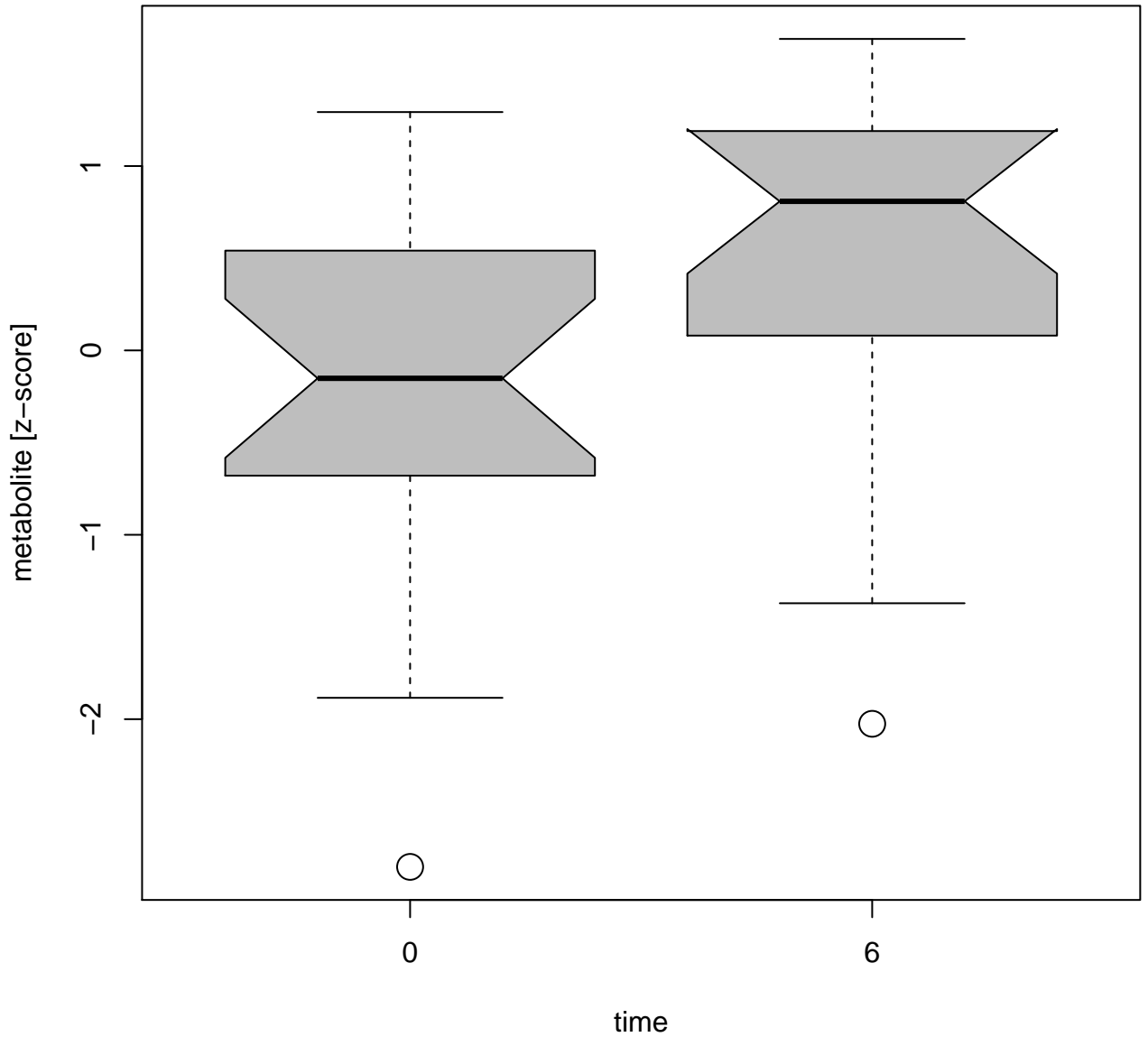
HCT15

**aspartate**

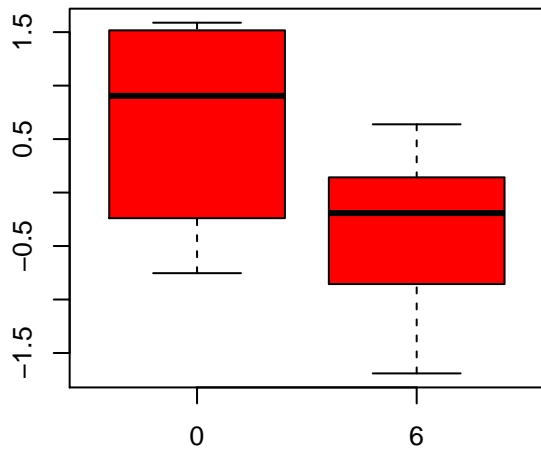


SKOV3

# aspartate

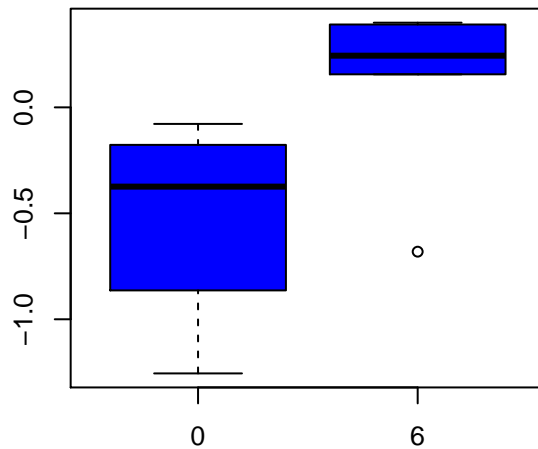


**butyrylcarnitine**



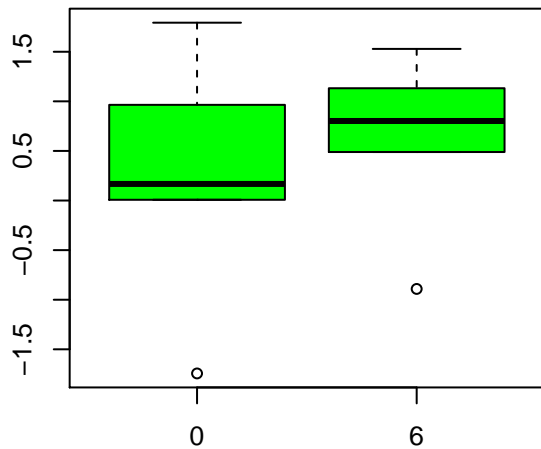
HCT116

**butyrylcarnitine**



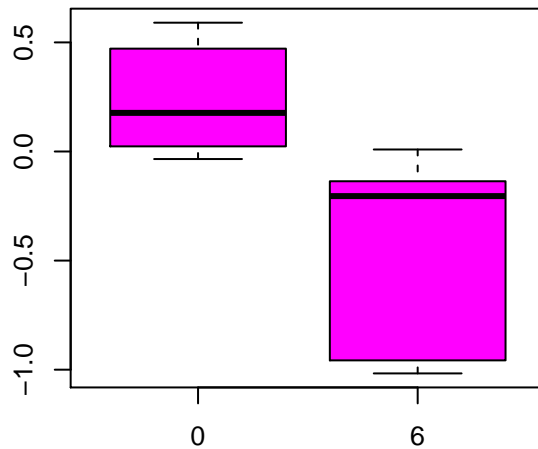
OVCAR

**butyrylcarnitine**



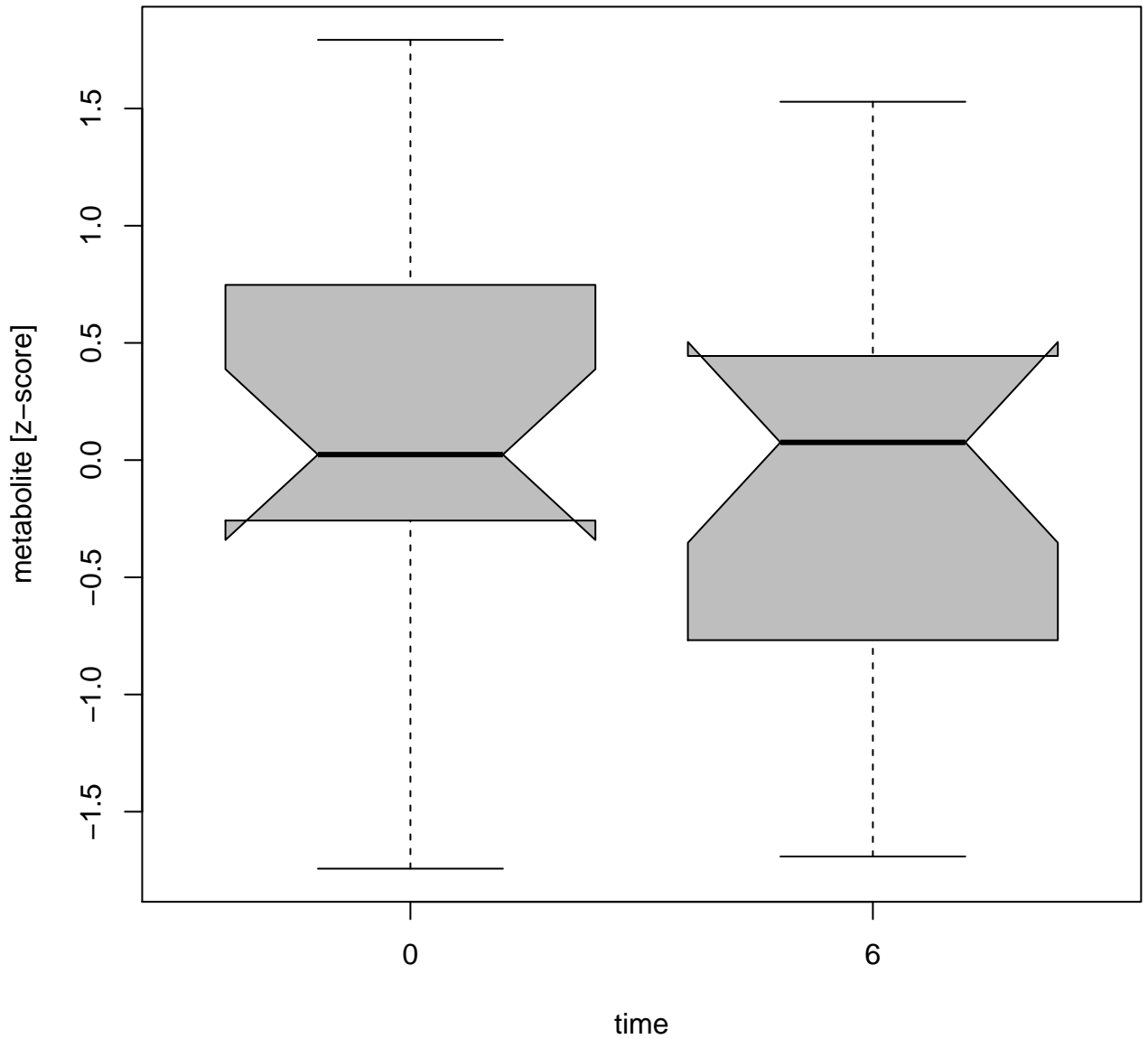
HCT15

**butyrylcarnitine**

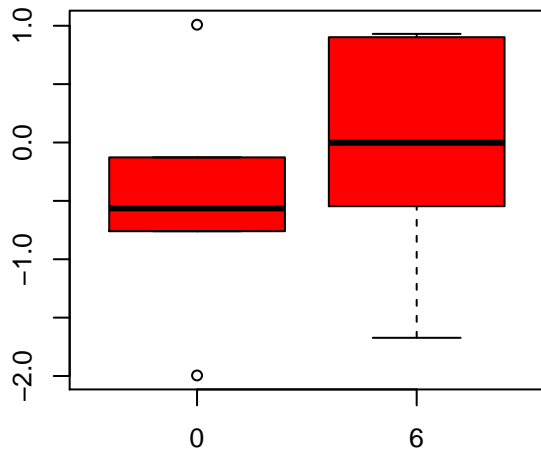


SKOV3

# butyrylcarnitine

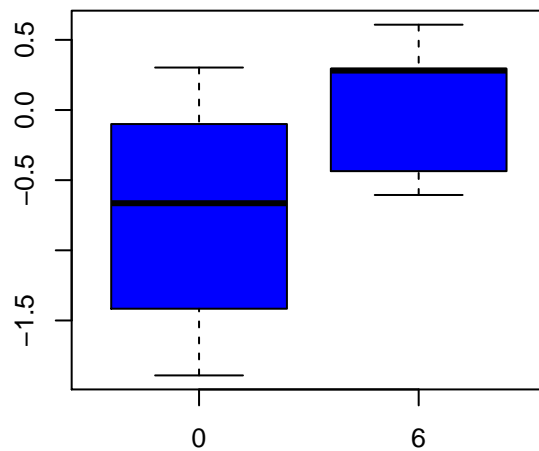


**carnitine**



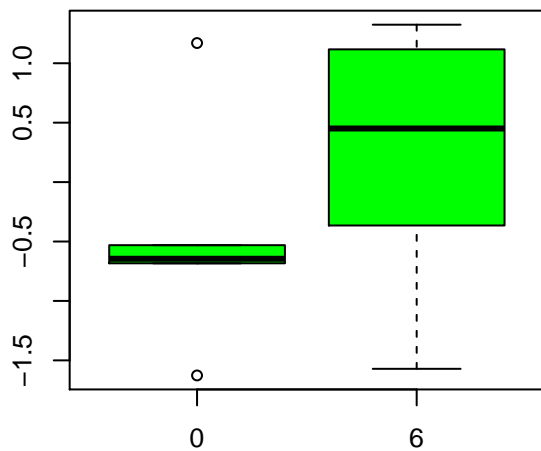
HCT116

**carnitine**



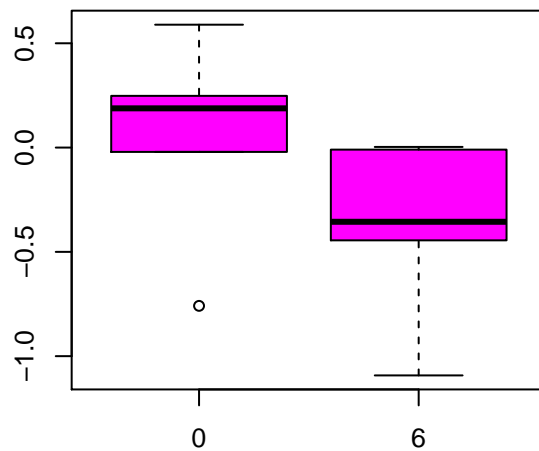
OVCAR

**carnitine**



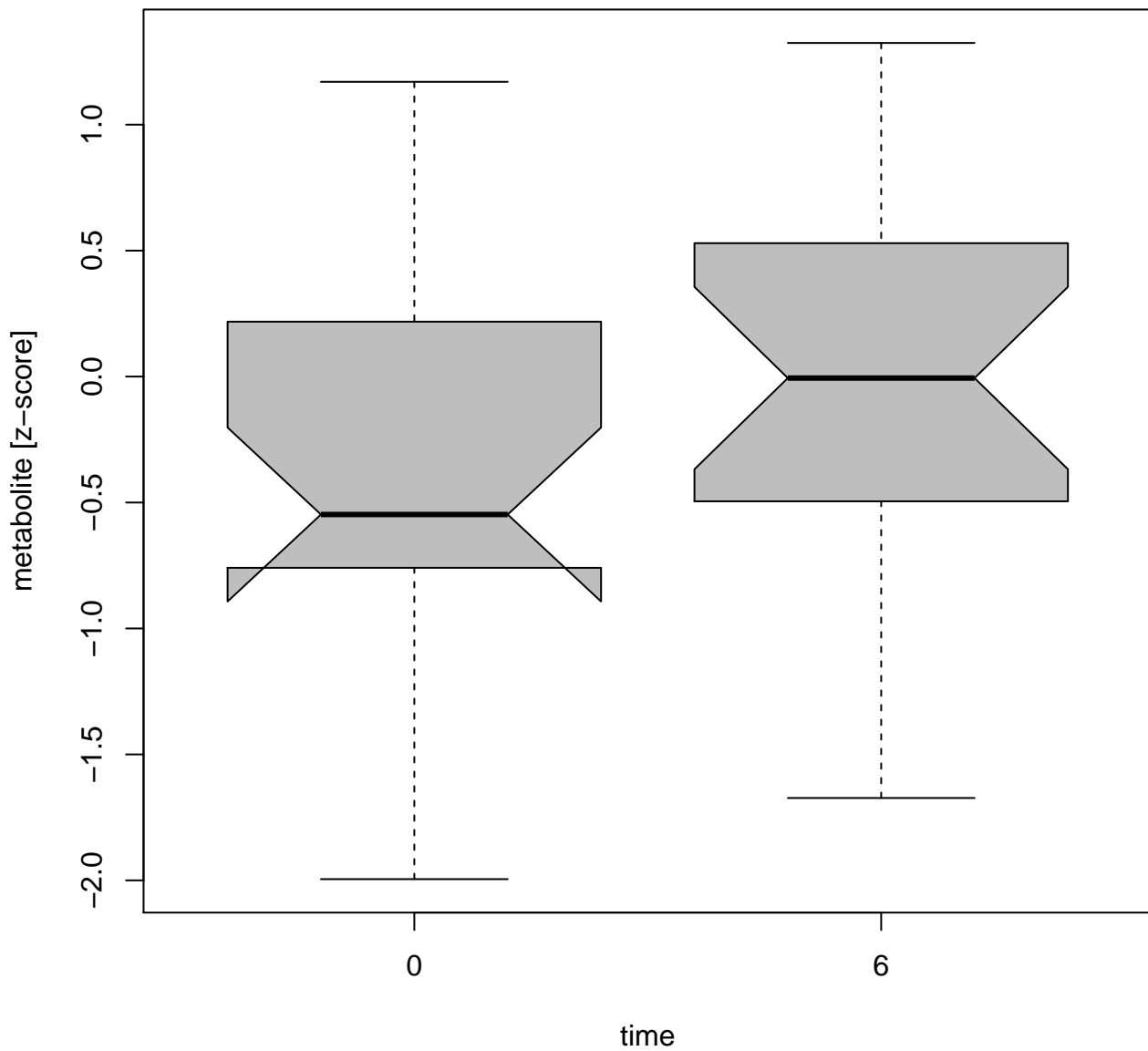
HCT15

**carnitine**

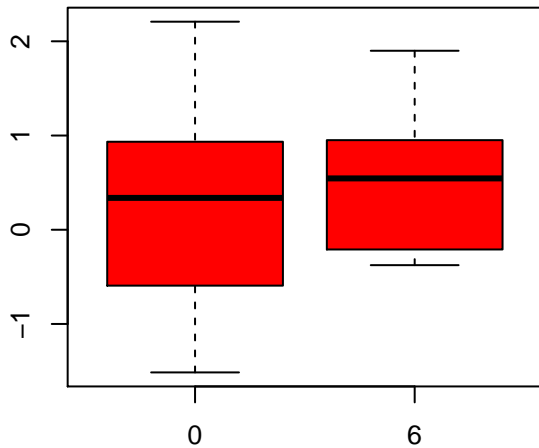


SKOV3

# carnitine

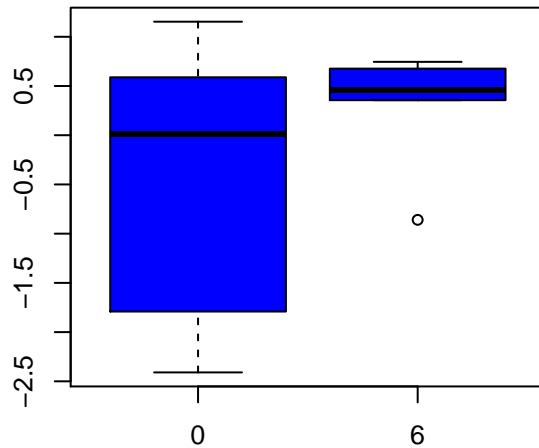


**cholesterol**



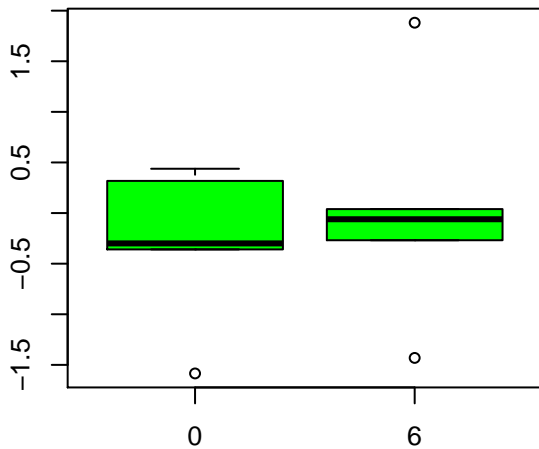
HCT116

**cholesterol**



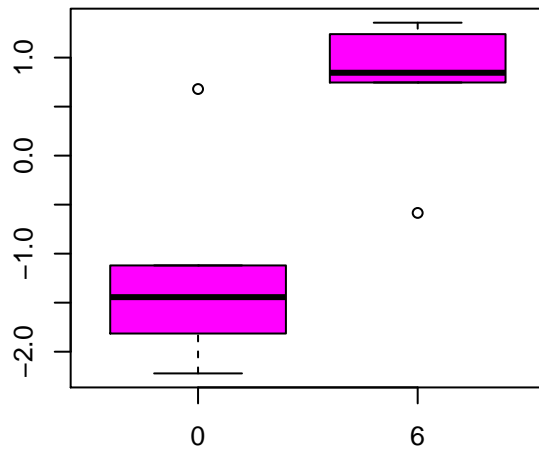
OVCAR

**cholesterol**



HCT15

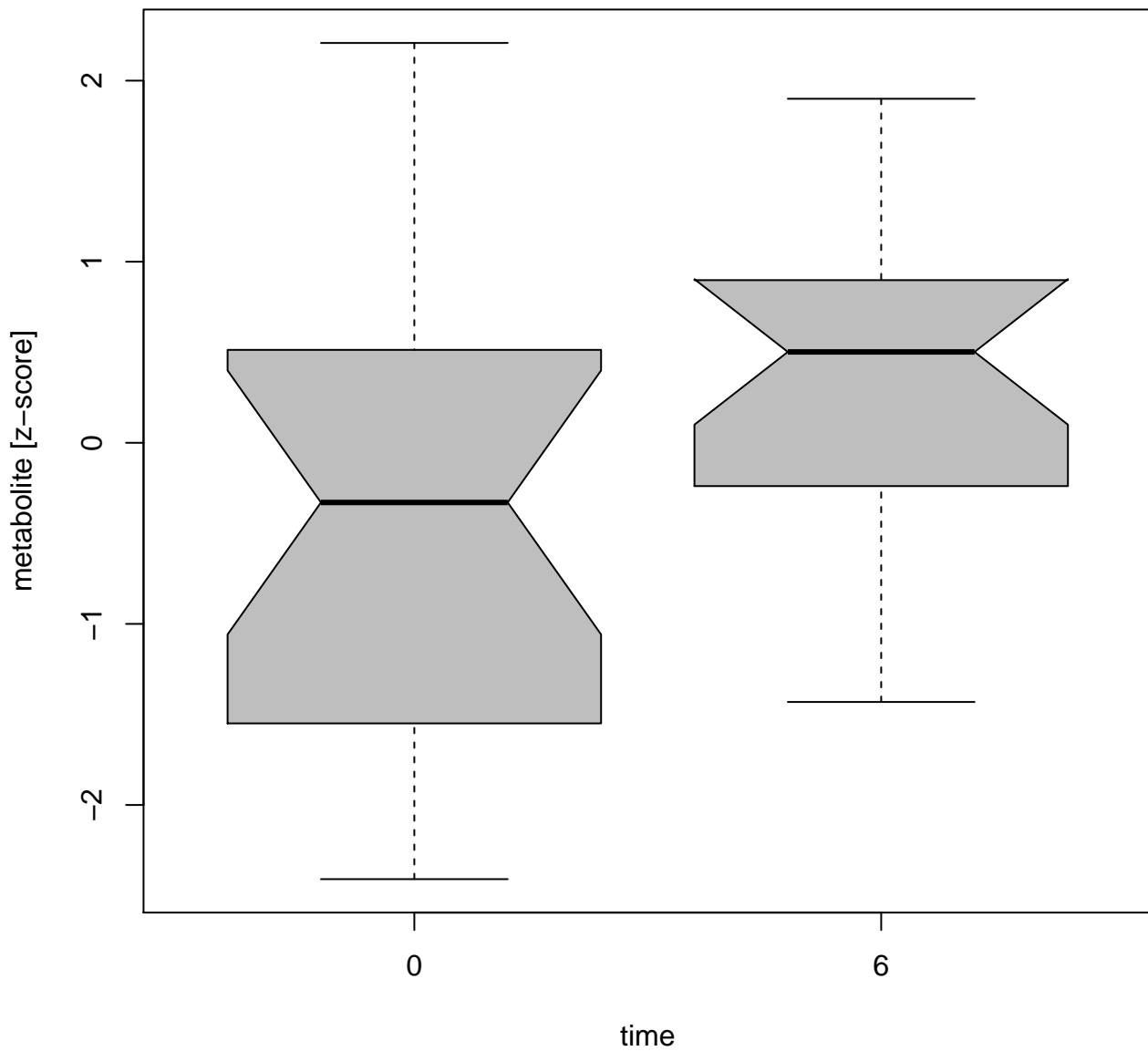
**cholesterol**



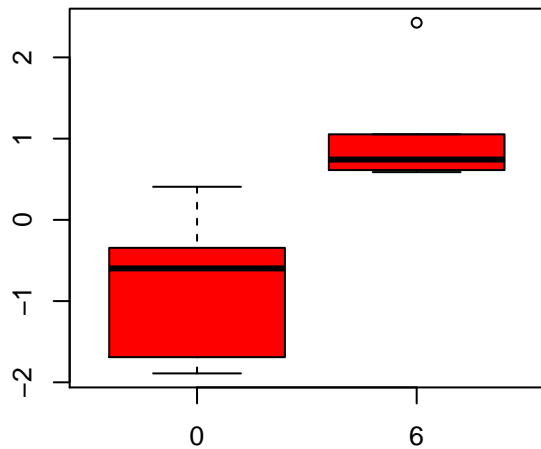
SKOV3



# cholesterol

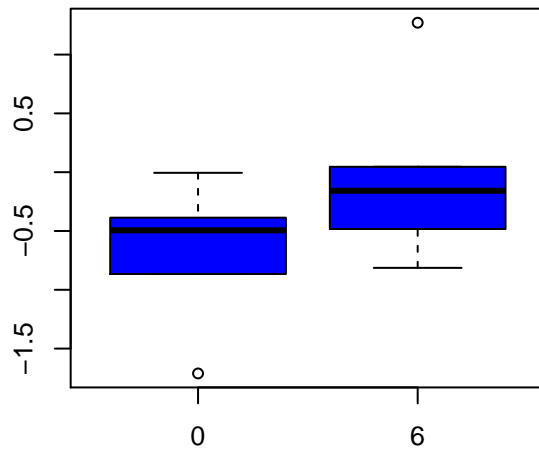


**choline**



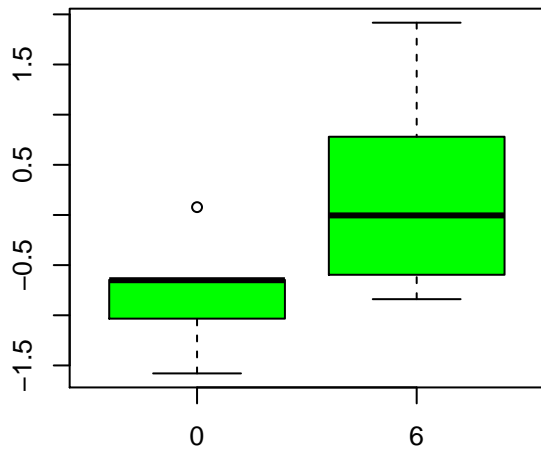
HCT116

**choline**



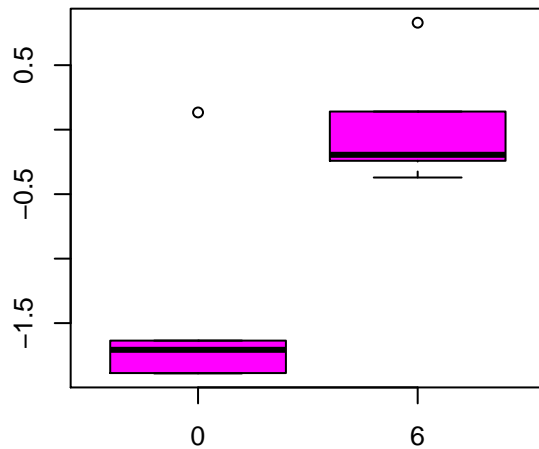
OVCAR

**choline**



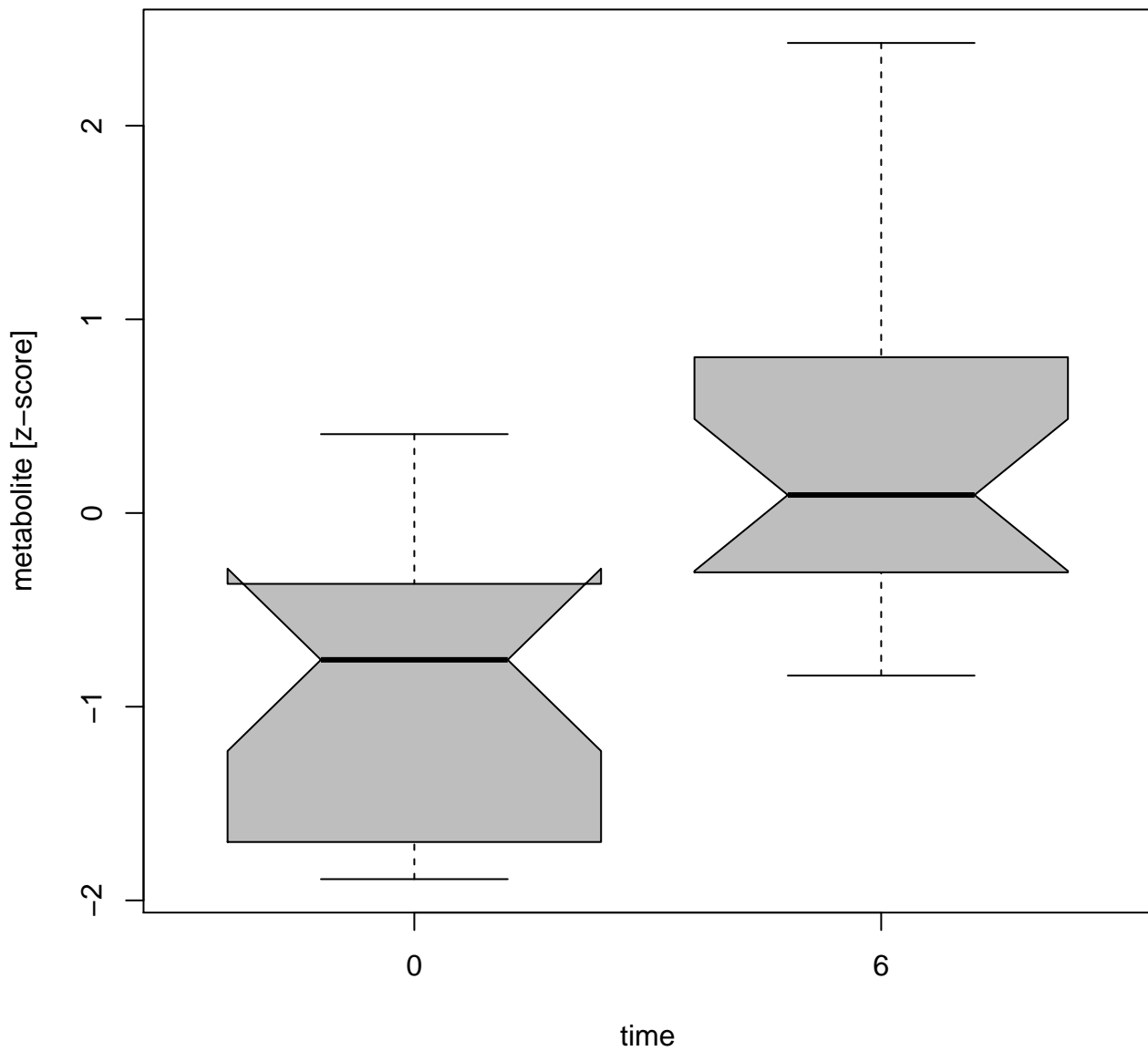
HCT15

**choline**

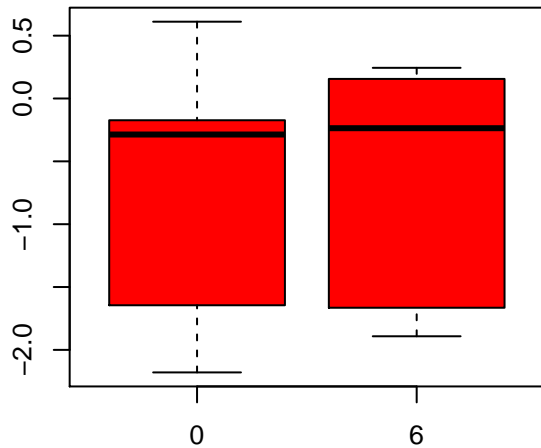


SKOV3

# choline

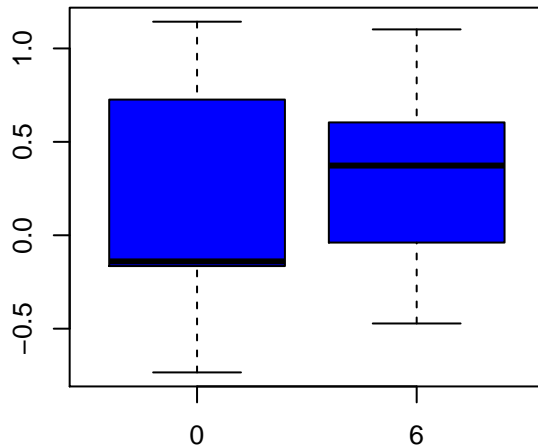


**choline phosphate**



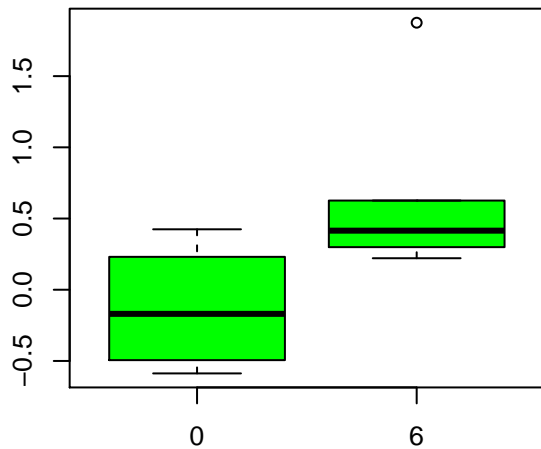
HCT116

**choline phosphate**



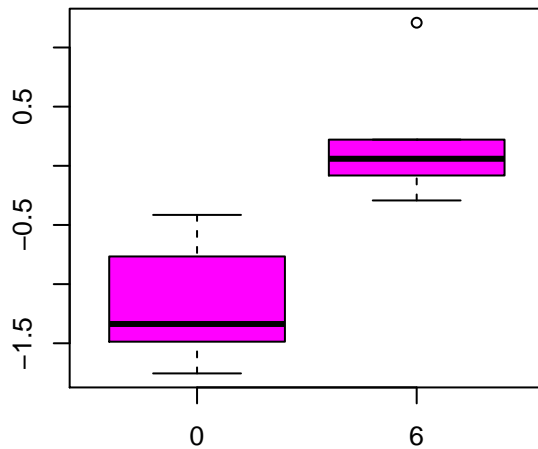
OVCAR

**choline phosphate**



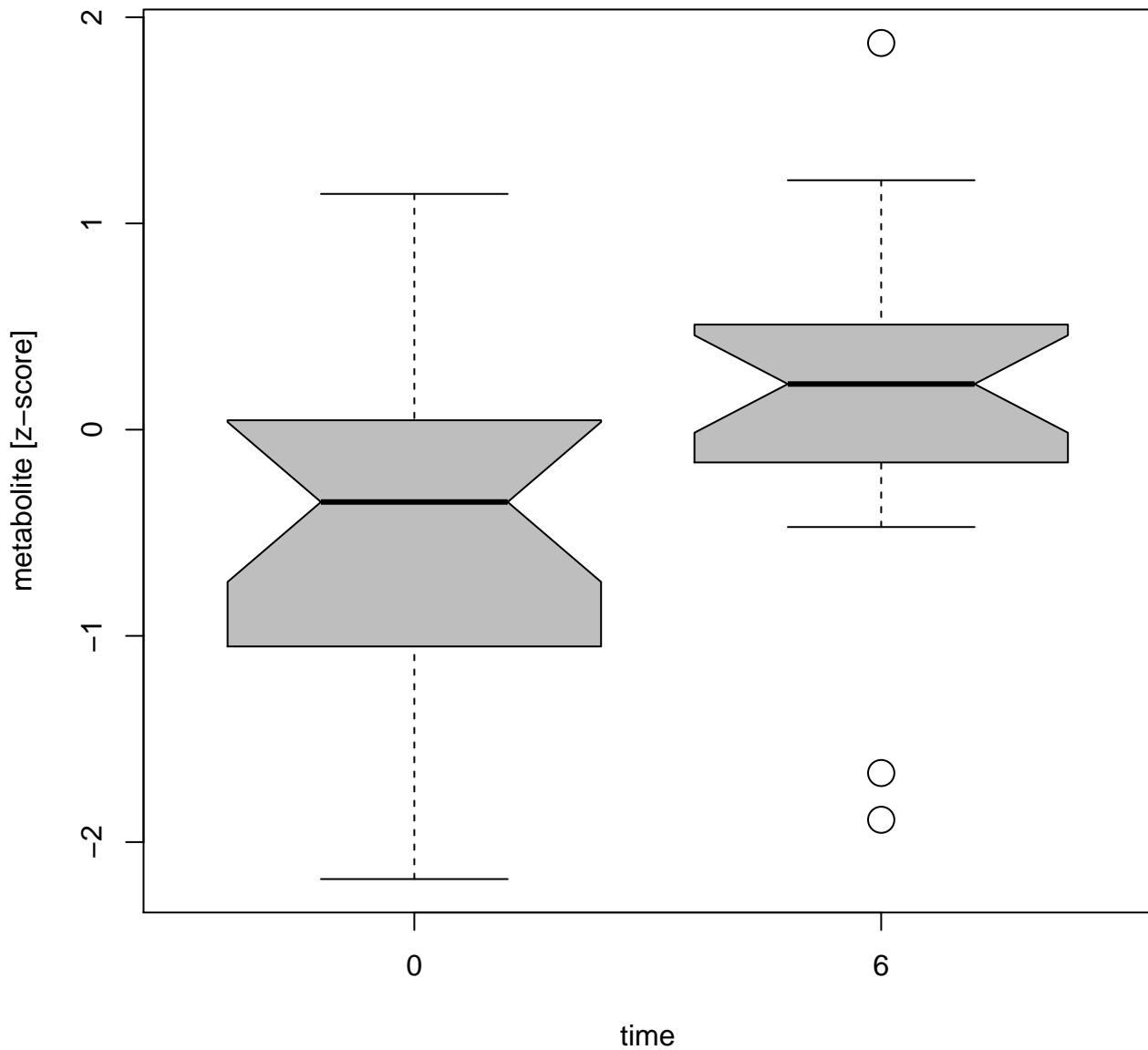
HCT15

**choline phosphate**

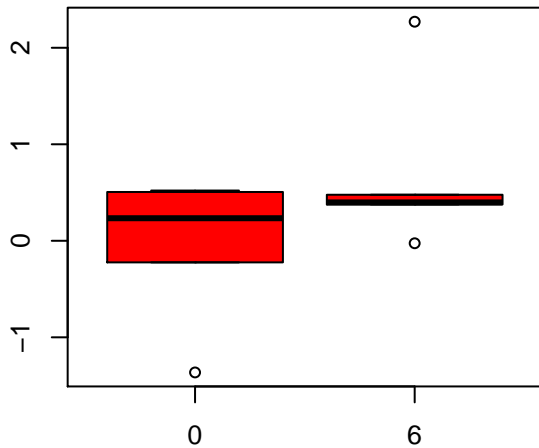


SKOV3

# choline phosphate

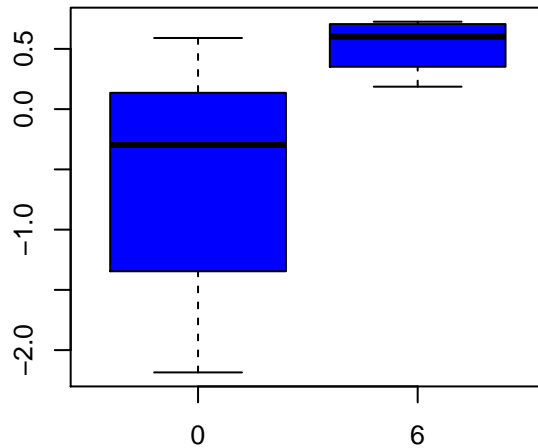


**cis-vaccenate (18:1n7)**



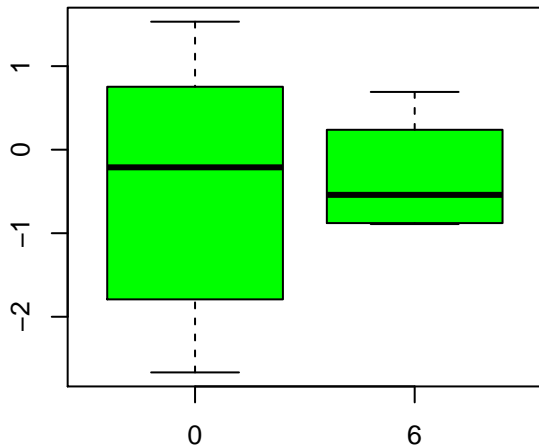
HCT116

**cis-vaccenate (18:1n7)**



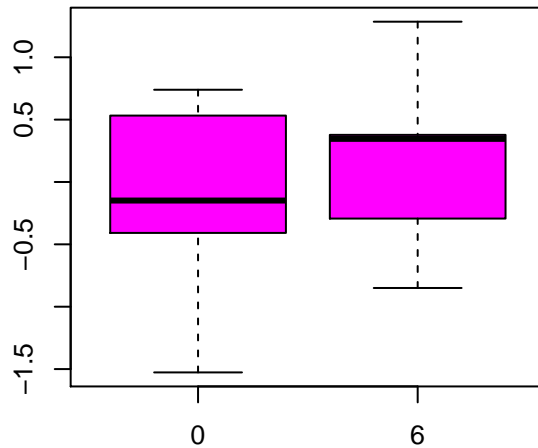
OVCAR

**cis-vaccenate (18:1n7)**



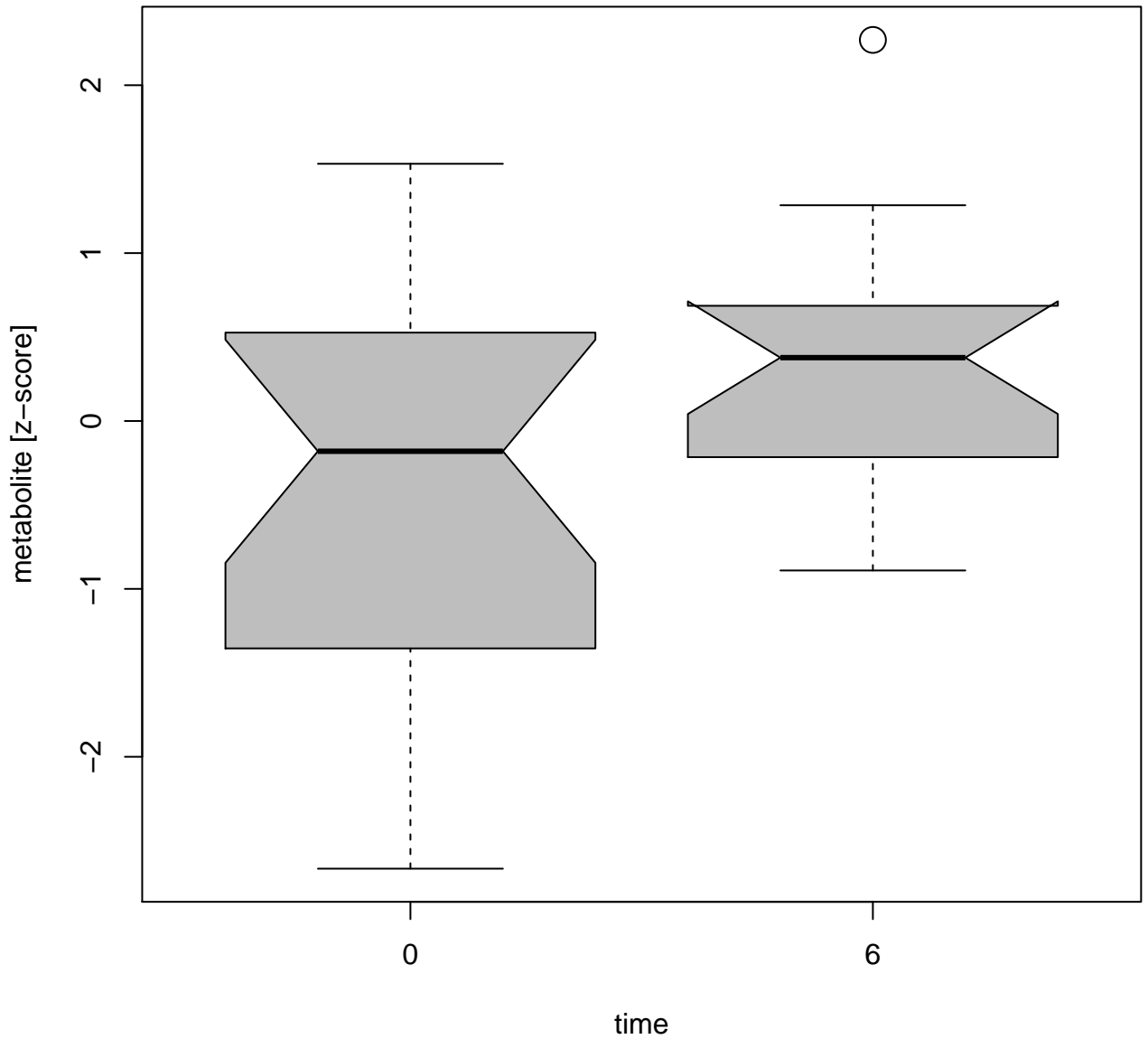
HCT15

**cis-vaccenate (18:1n7)**

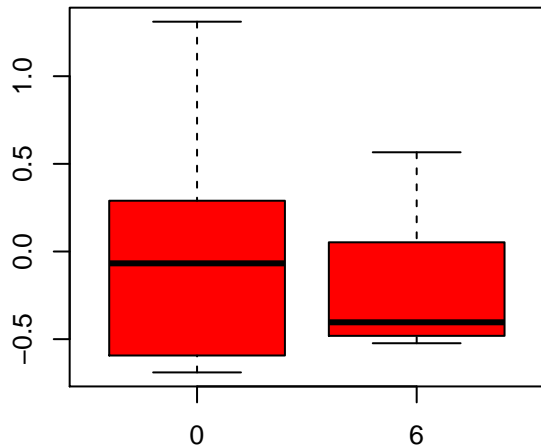


SKOV3

# cis-vaccenate (18:1n7)

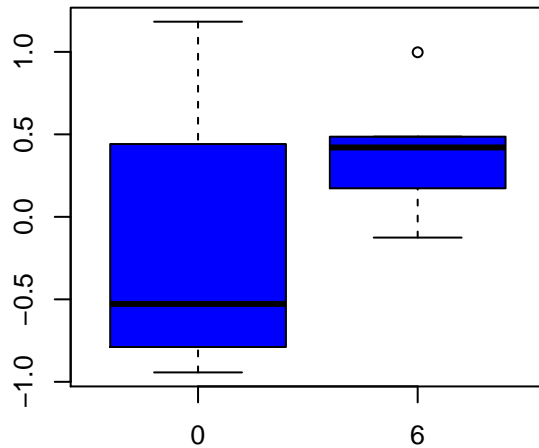


**citrate**



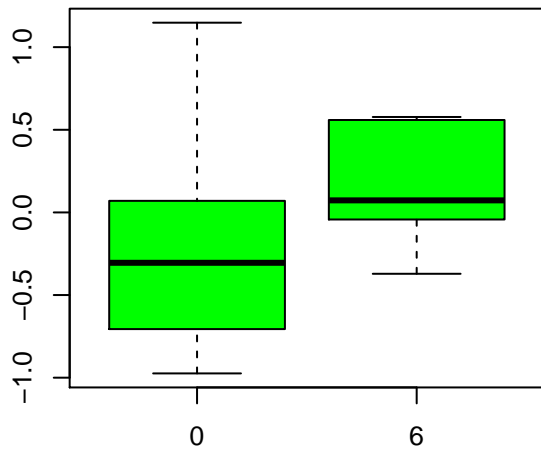
HCT116

**citrate**



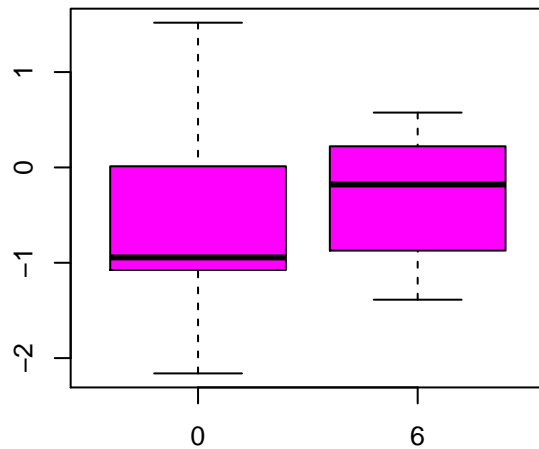
OVCAR

**citrate**



HCT15

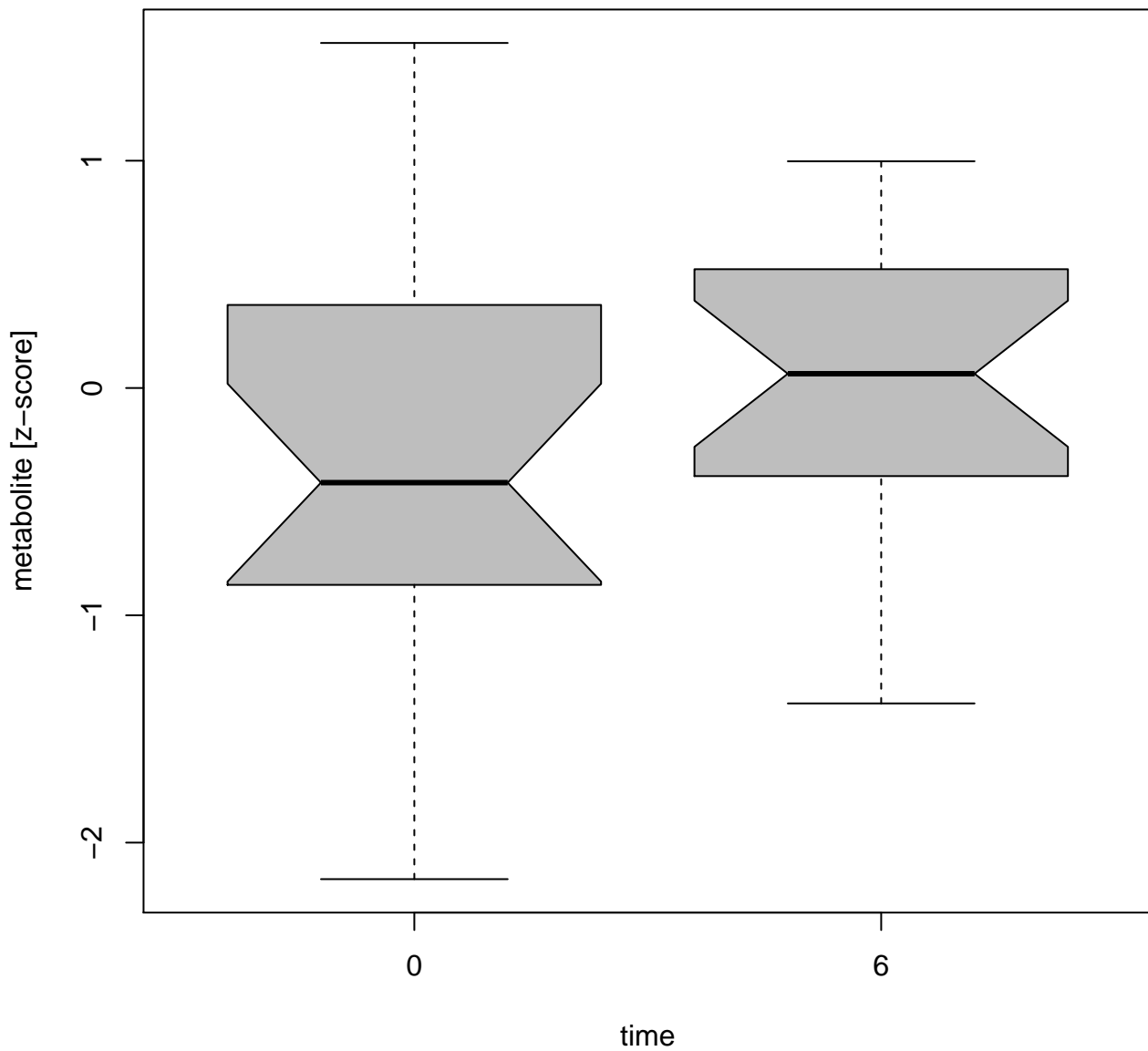
**citrate**



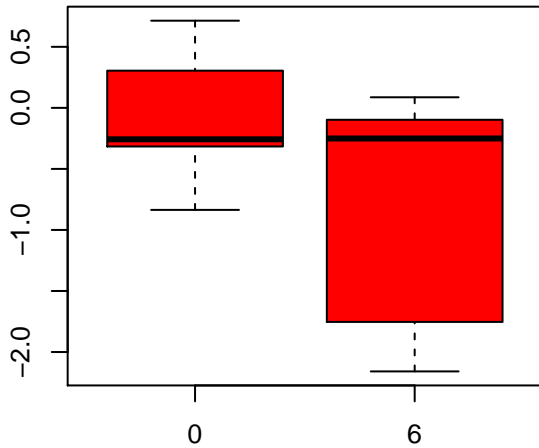
SKOV3



# citrate

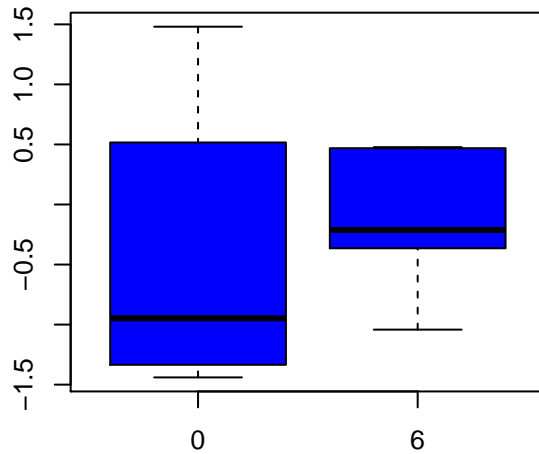


**creatine**



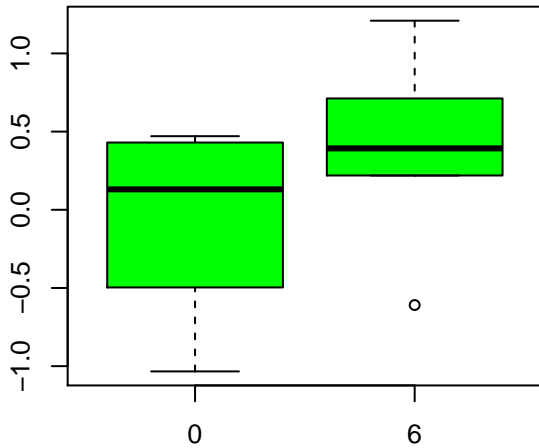
HCT116

**creatine**



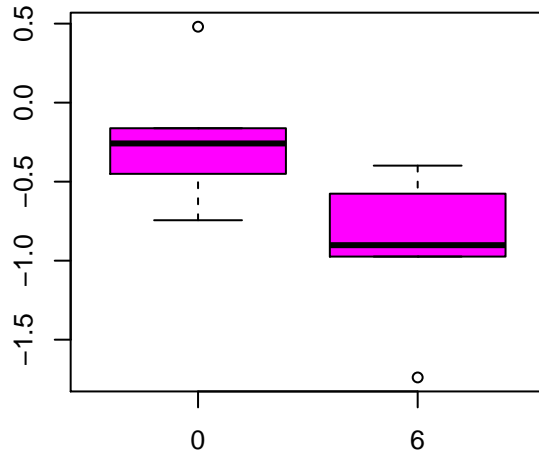
OVCAR

**creatine**



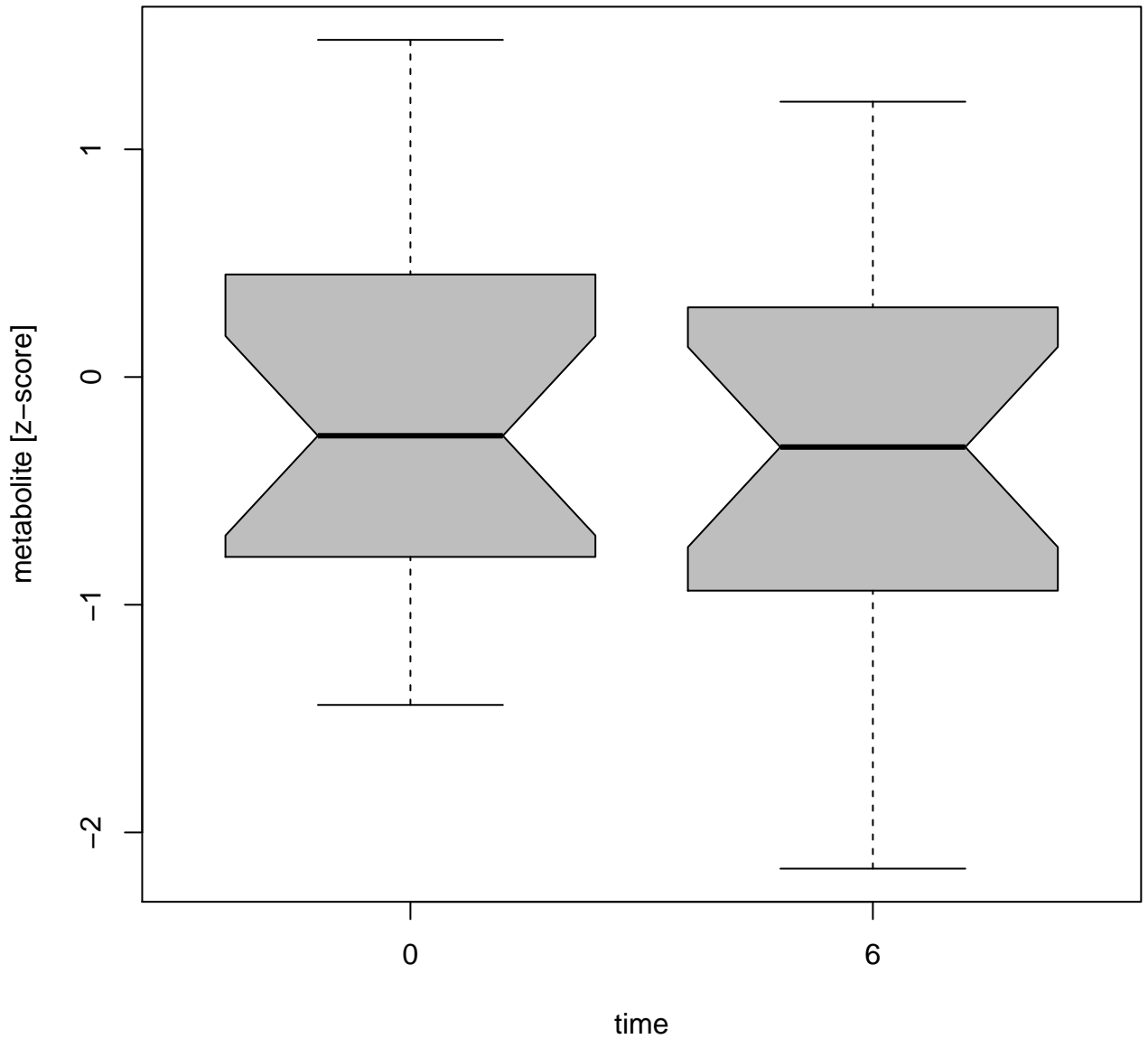
HCT15

**creatine**

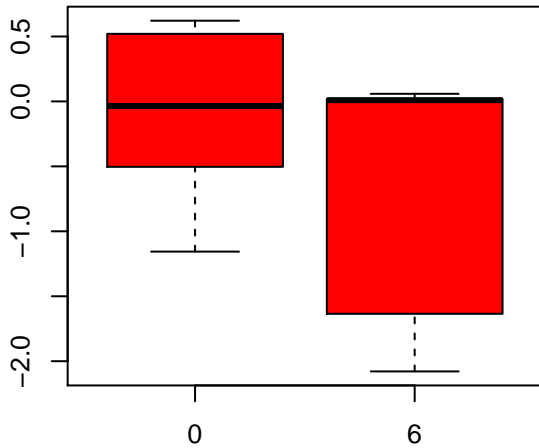


SKOV3

# creatine

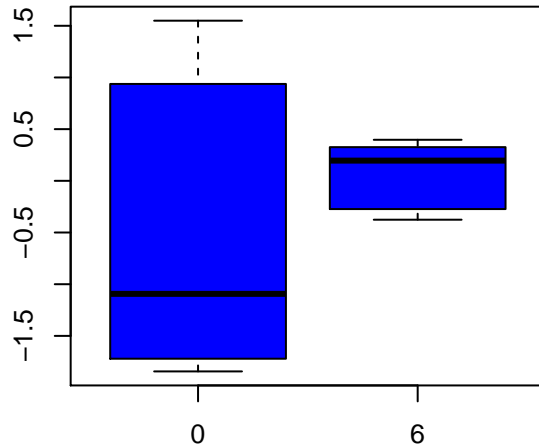


**creatinine**



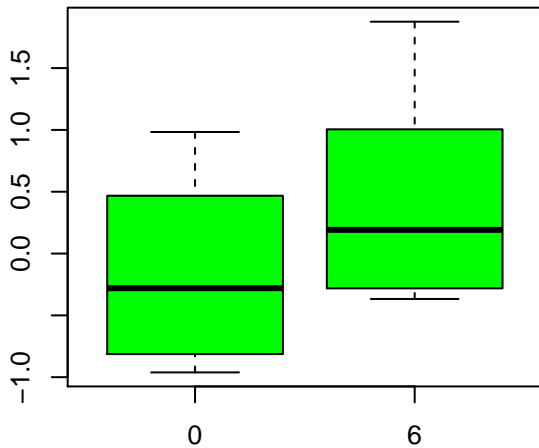
HCT116

**creatinine**



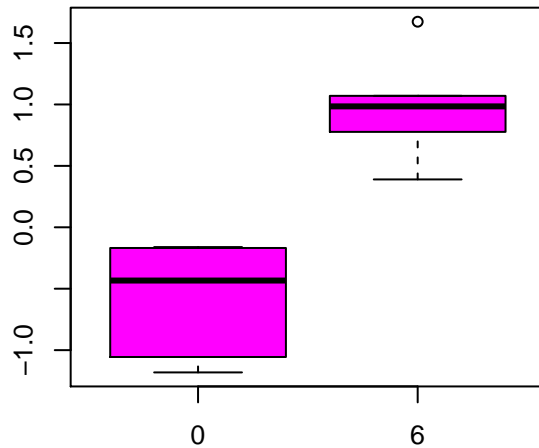
OVCAR

**creatinine**



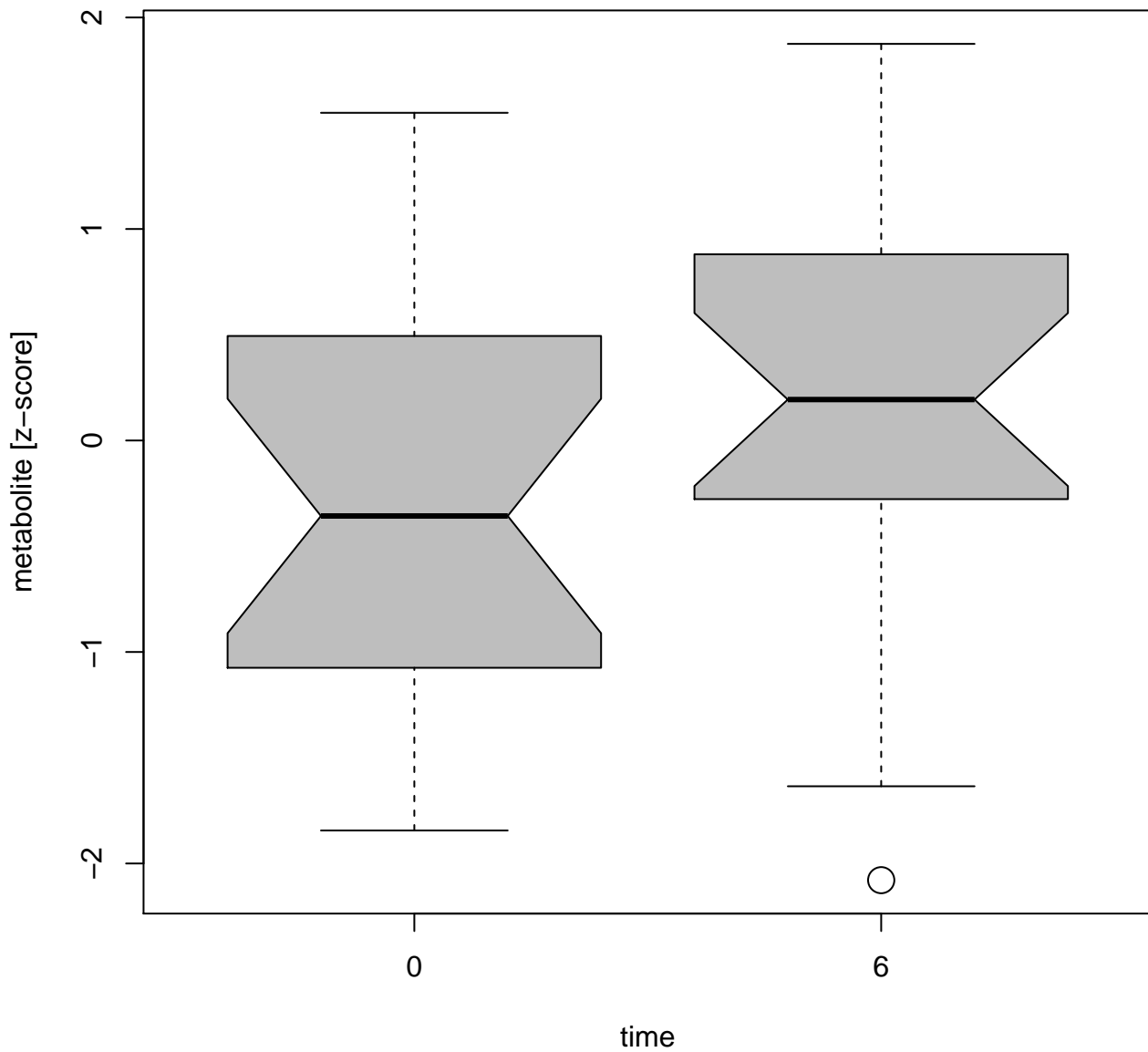
HCT15

**creatinine**

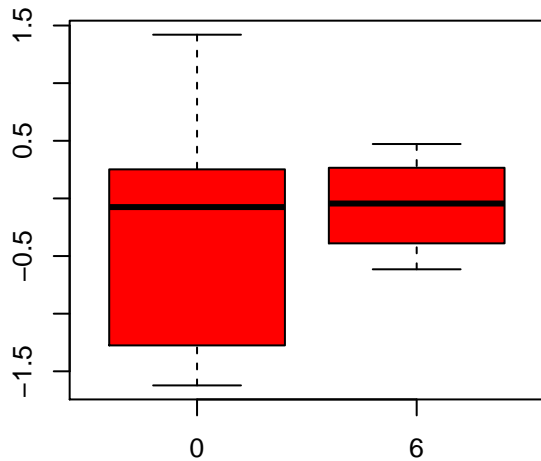


SKOV3

# creatinine

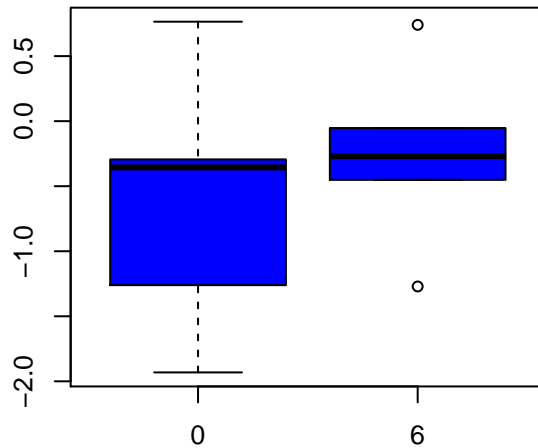


**cysteinyglycine**



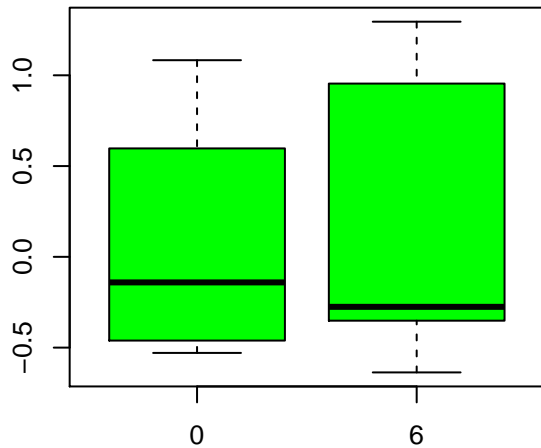
HCT116

**cysteinyglycine**



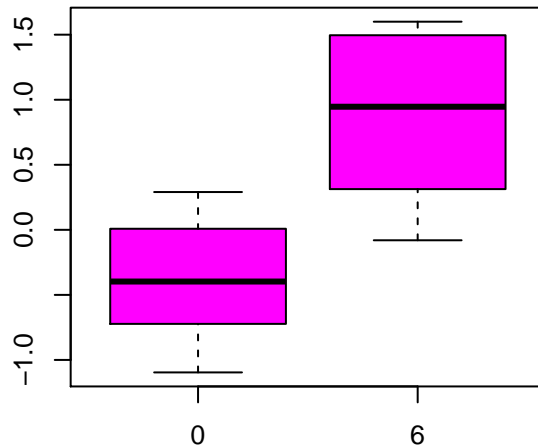
OVCAR

**cysteinyglycine**



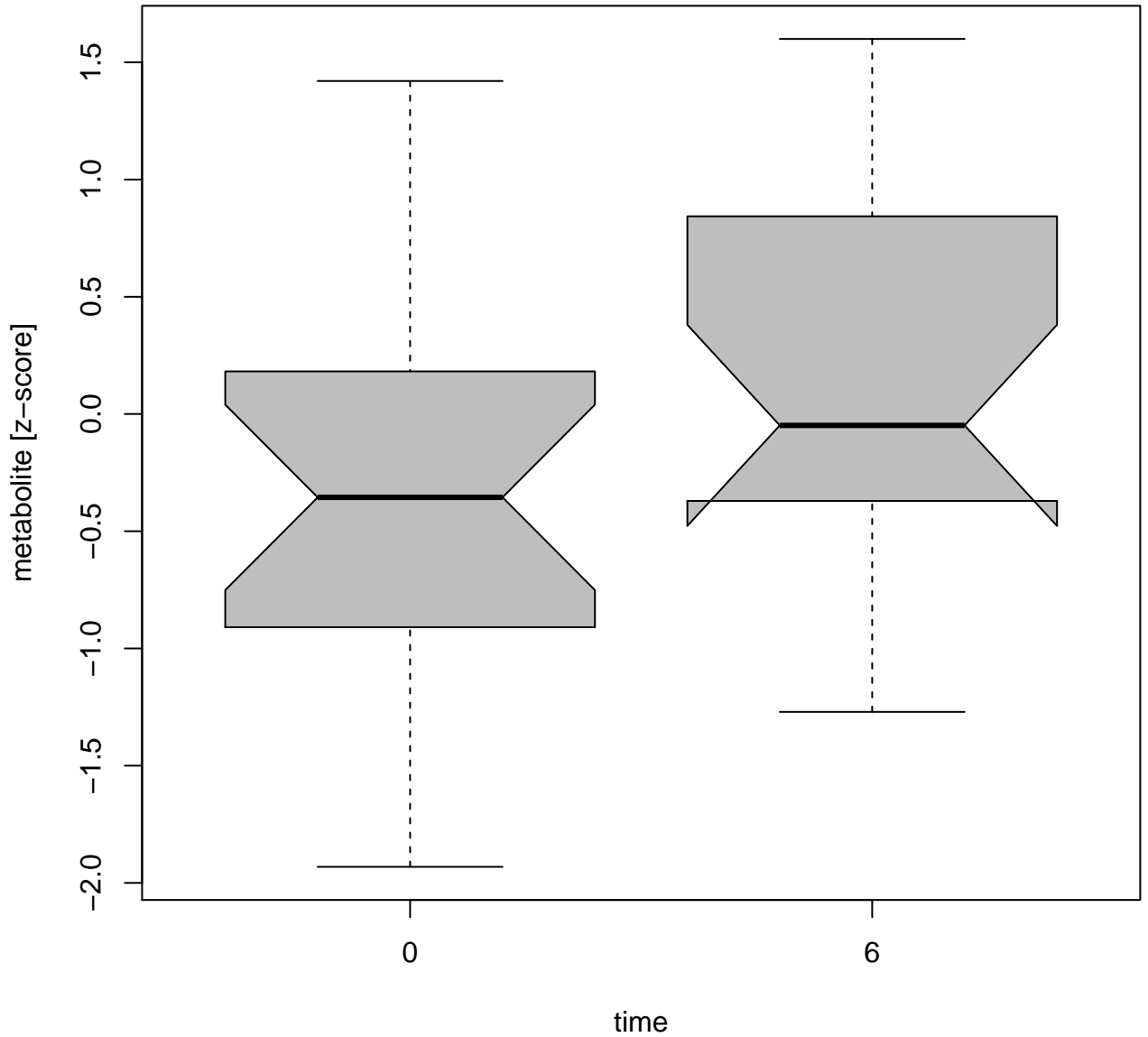
HCT15

**cysteinyglycine**

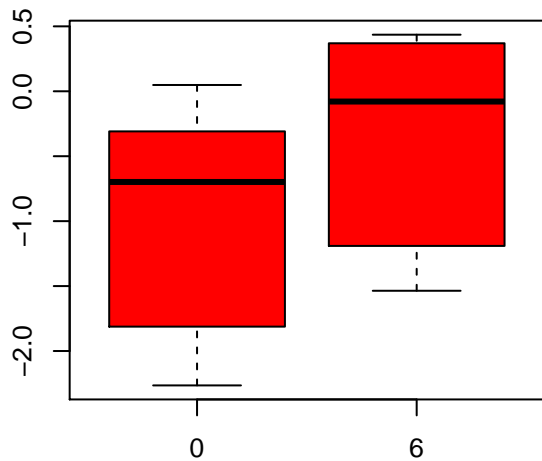


SKOV3

# cysteinylglycine

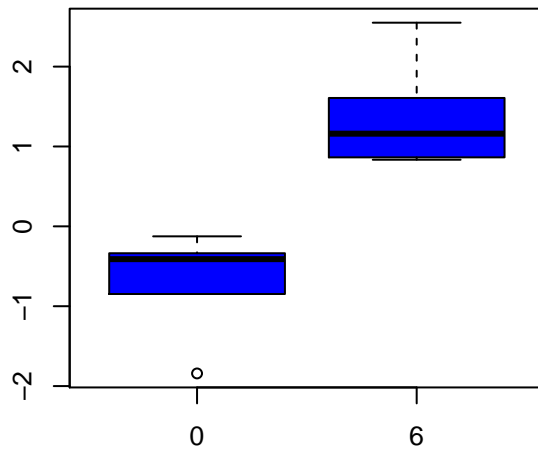


**cytidine 5'-diphosphocholine**



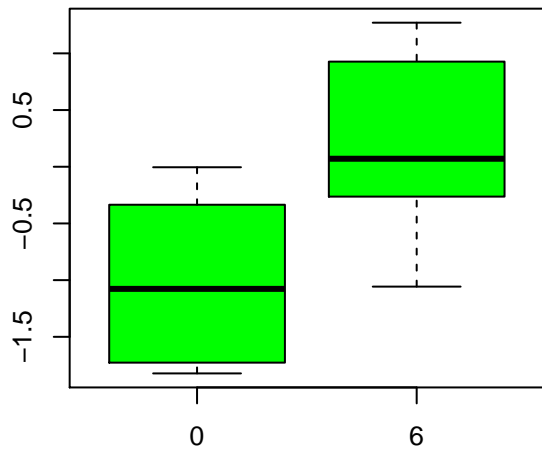
HCT116

**cytidine 5'-diphosphocholine**



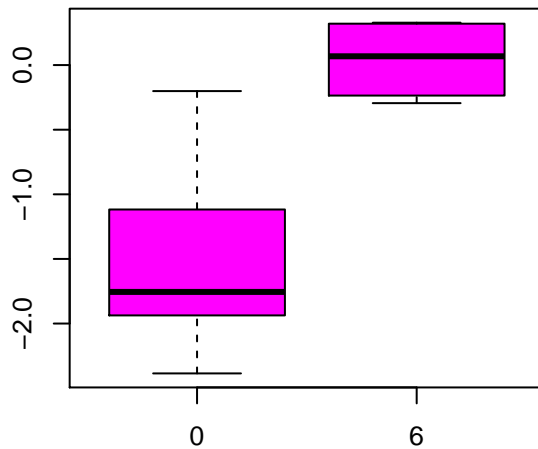
OVCAR

**cytidine 5'-diphosphocholine**



HCT15

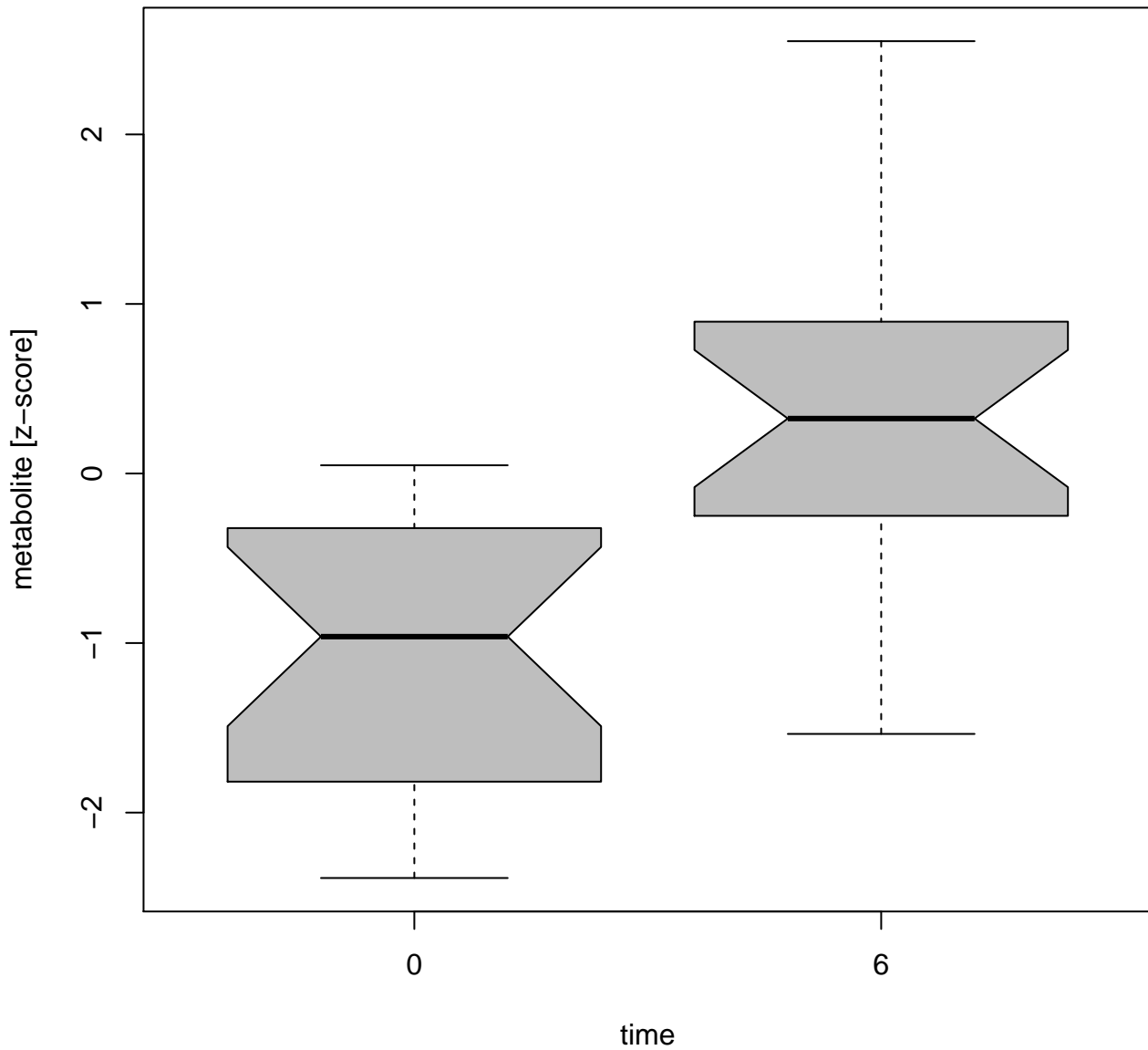
**cytidine 5'-diphosphocholine**



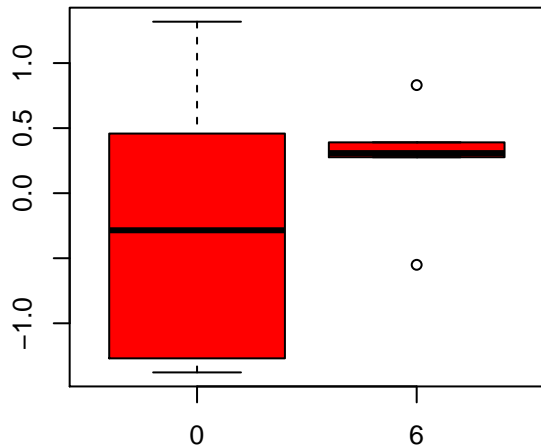
SKOV3



# cytidine 5'-diphosphocholine

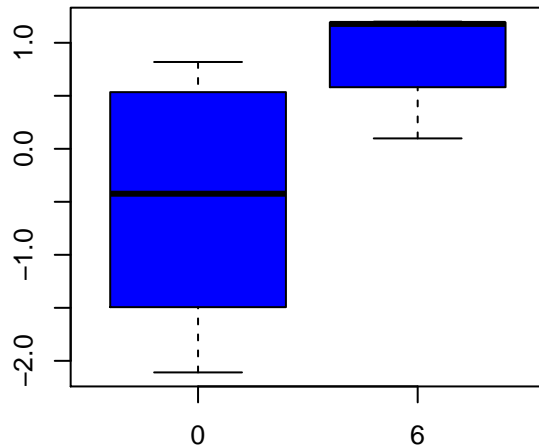


**cytidine 5'-monophosphate (5'-CMP)**



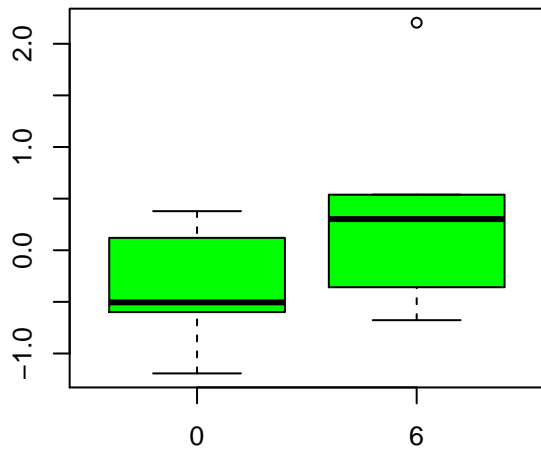
HCT116

**cytidine 5'-monophosphate (5'-CMP)**



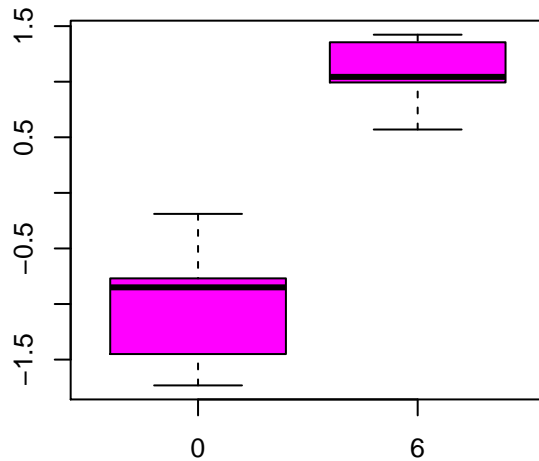
OVCAR

**cytidine 5'-monophosphate (5'-CMP)**



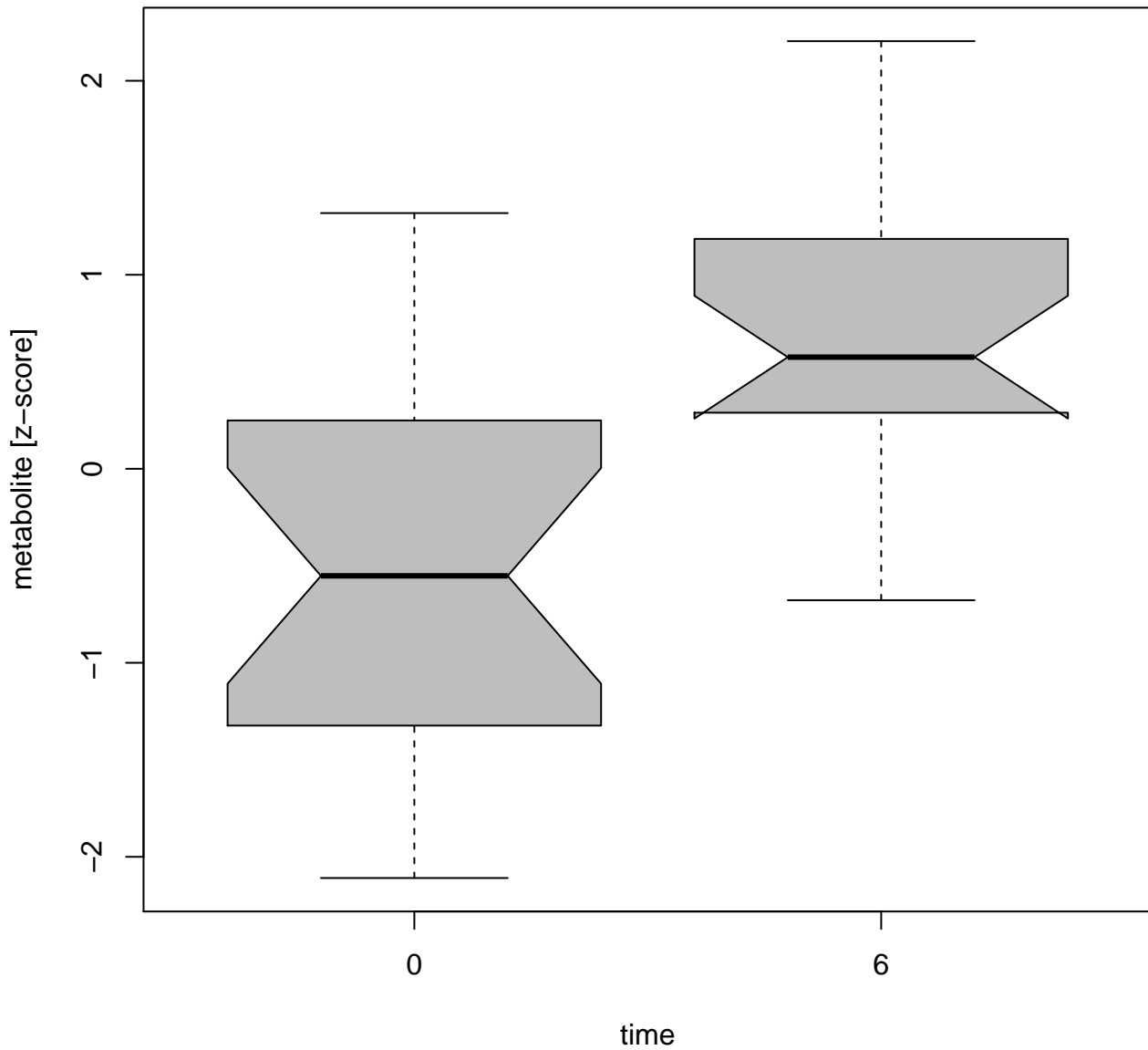
HCT15

**cytidine 5'-monophosphate (5'-CMP)**

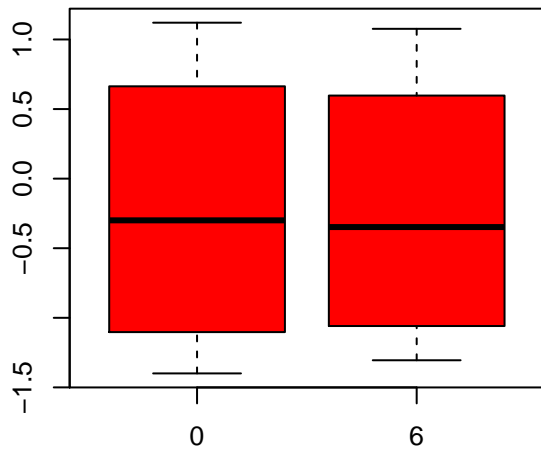


SKOV3

# cytidine 5'-monophosphate (5'-CMP)

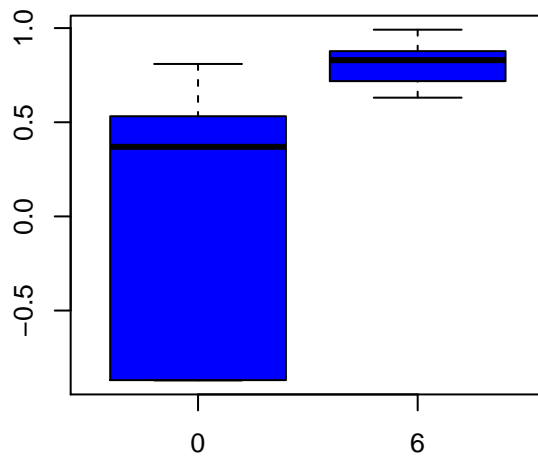


**cytidine diphosphate**



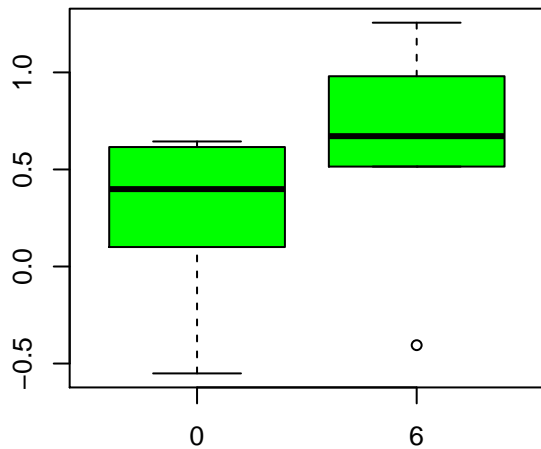
HCT116

**cytidine diphosphate**



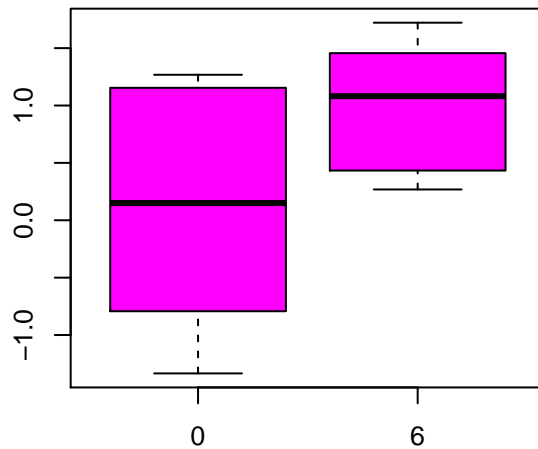
OVCAR

**cytidine diphosphate**



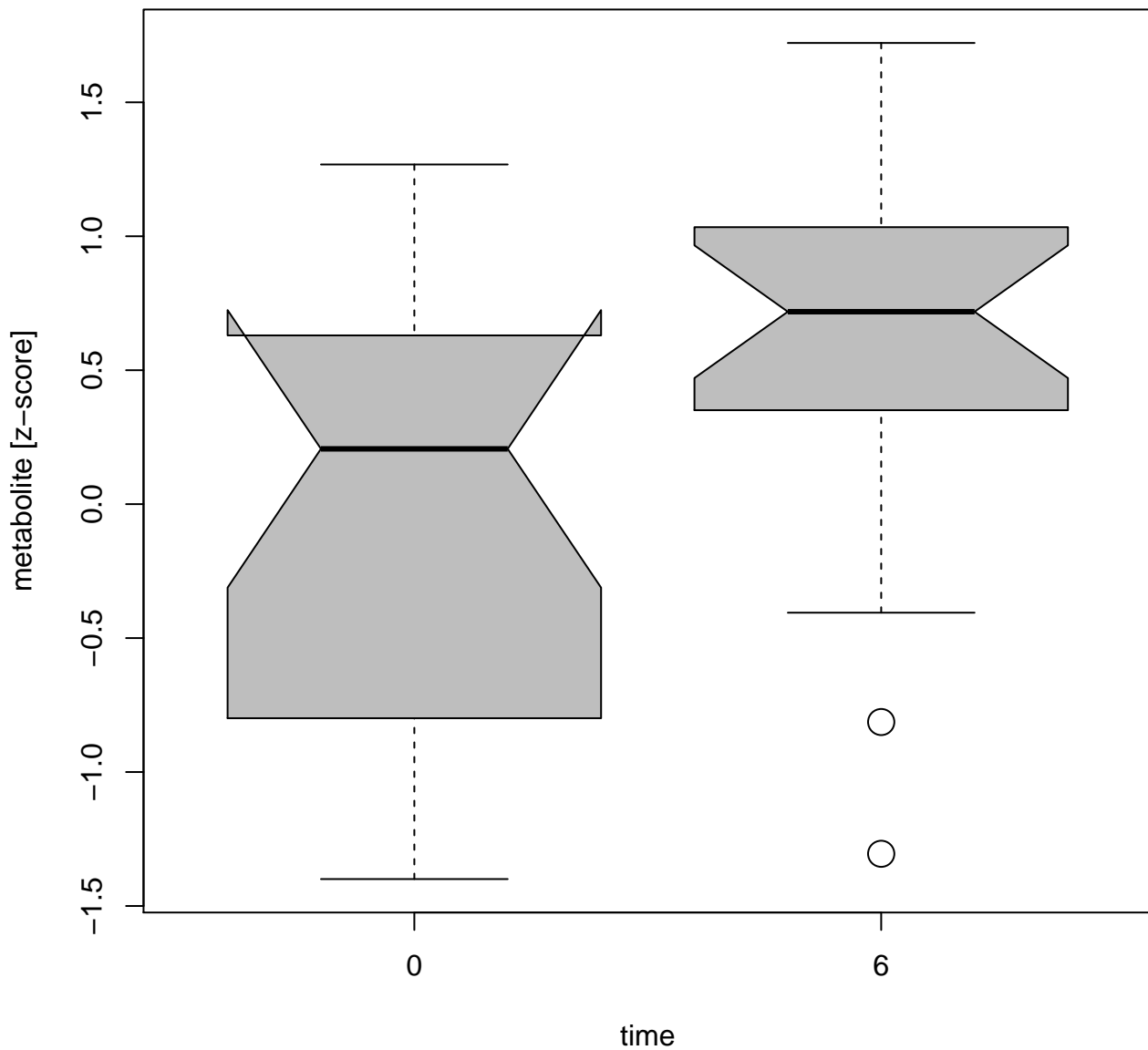
HCT15

**cytidine diphosphate**

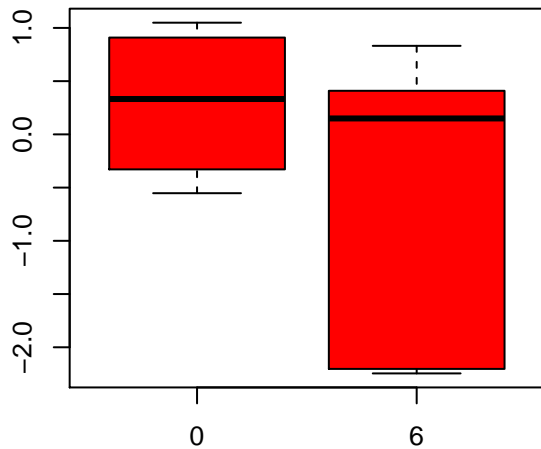


SKOV3

# cytidine diphosphate

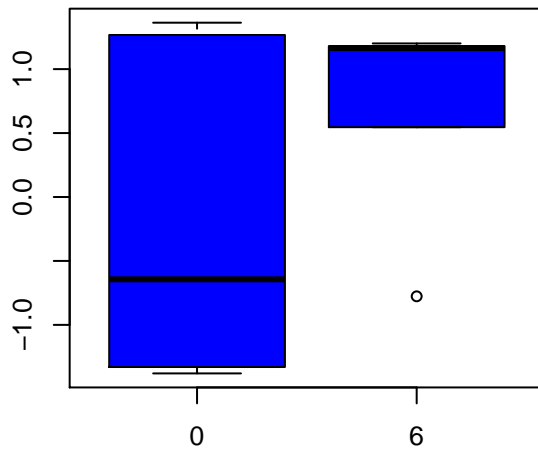


**cytidine-5'-diphosphoethanolamine**



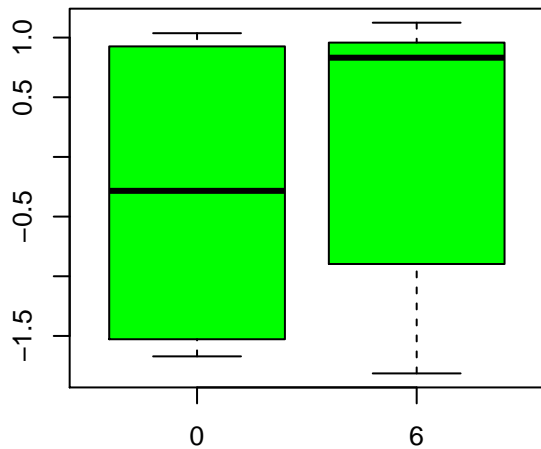
HCT116

**cytidine-5'-diphosphoethanolamine**



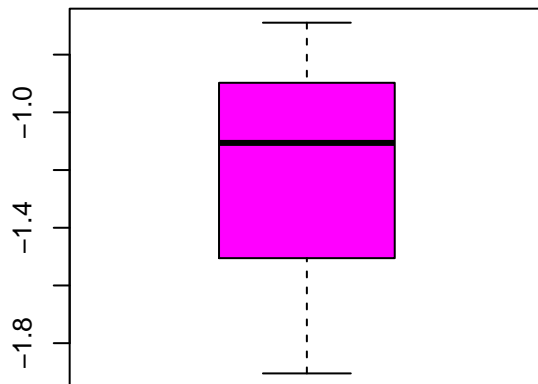
OVCAR

**cytidine-5'-diphosphoethanolamine**



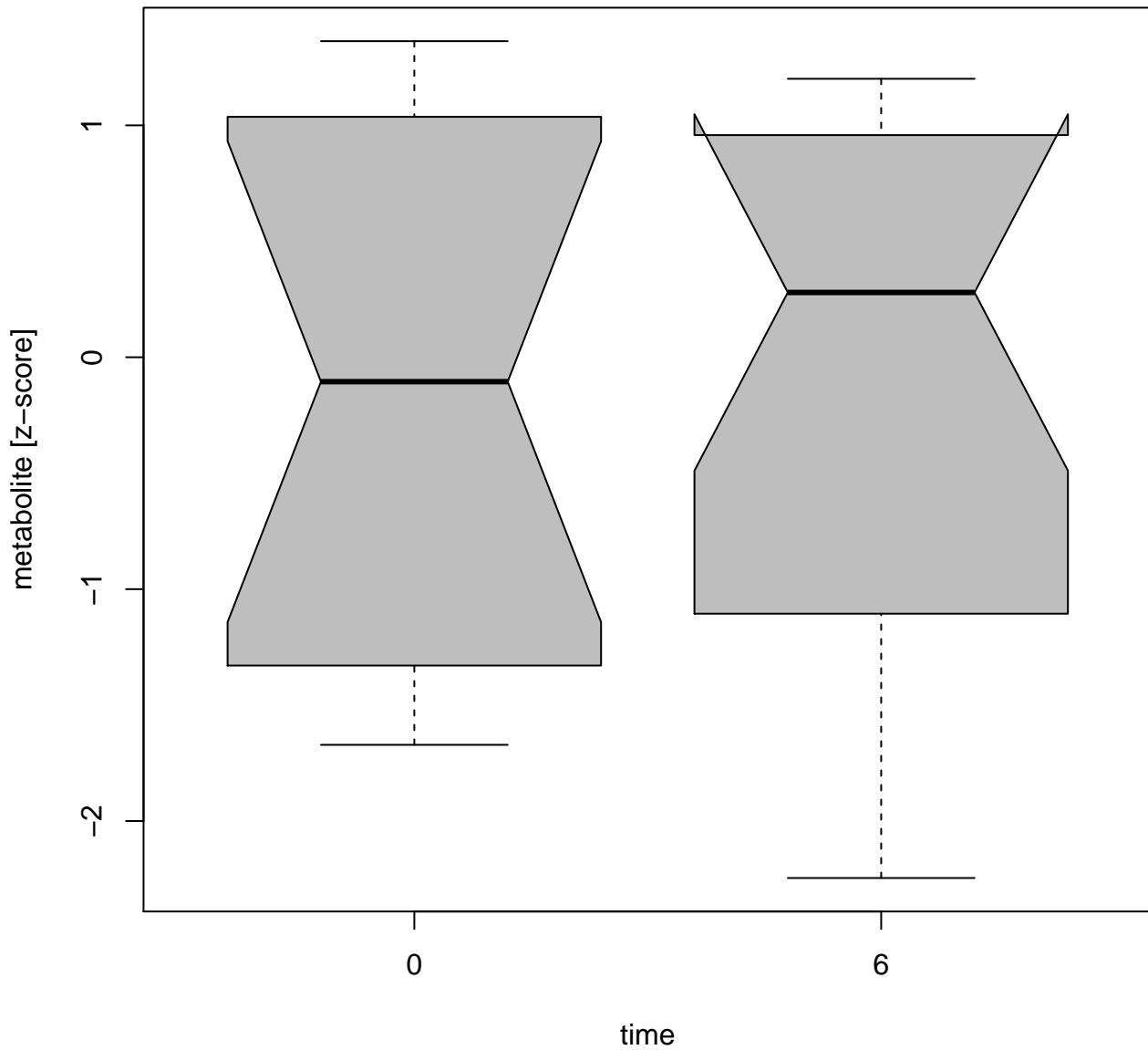
HCT15

**cytidine-5'-diphosphoethanolamine**

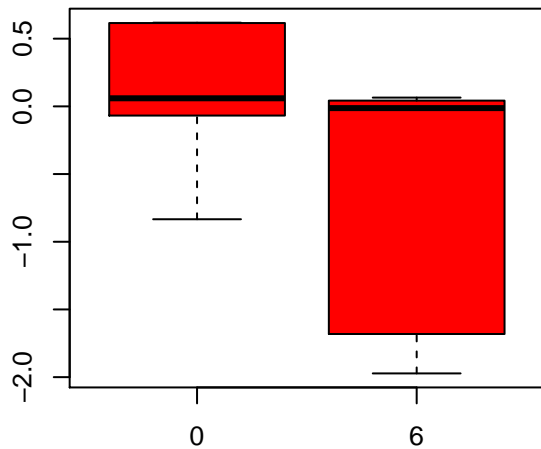


SKOV3

# cytidine-5'-diphosphoethanolamine

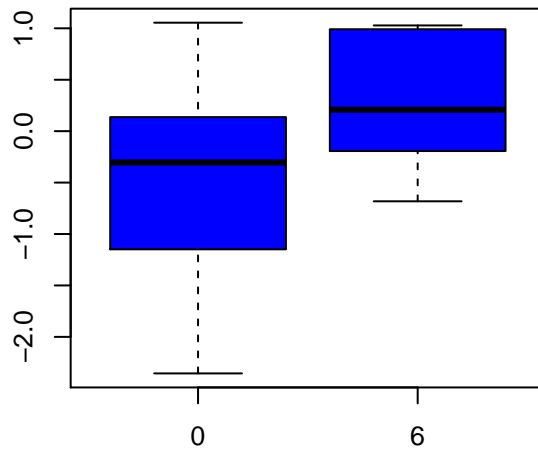


**deoxycarnitine**



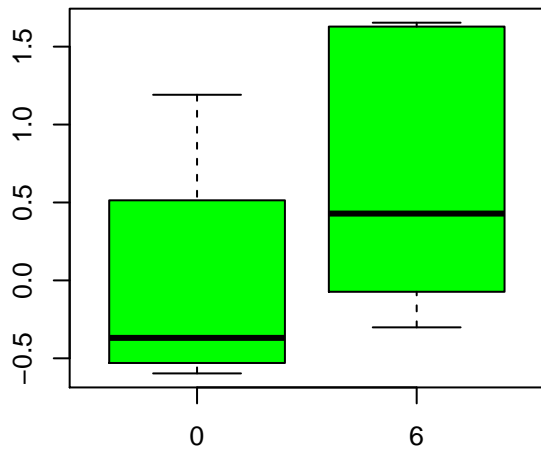
HCT116

**deoxycarnitine**



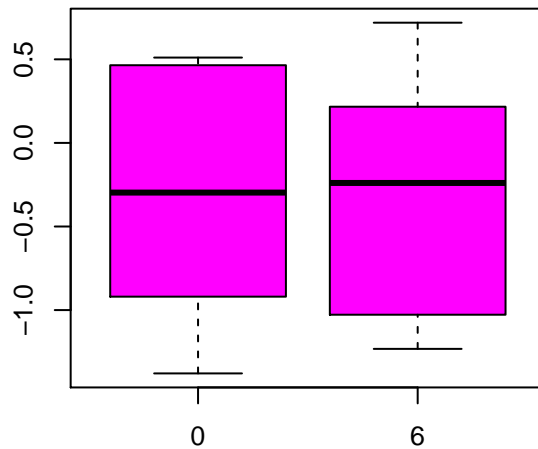
OVCAR

**deoxycarnitine**



HCT15

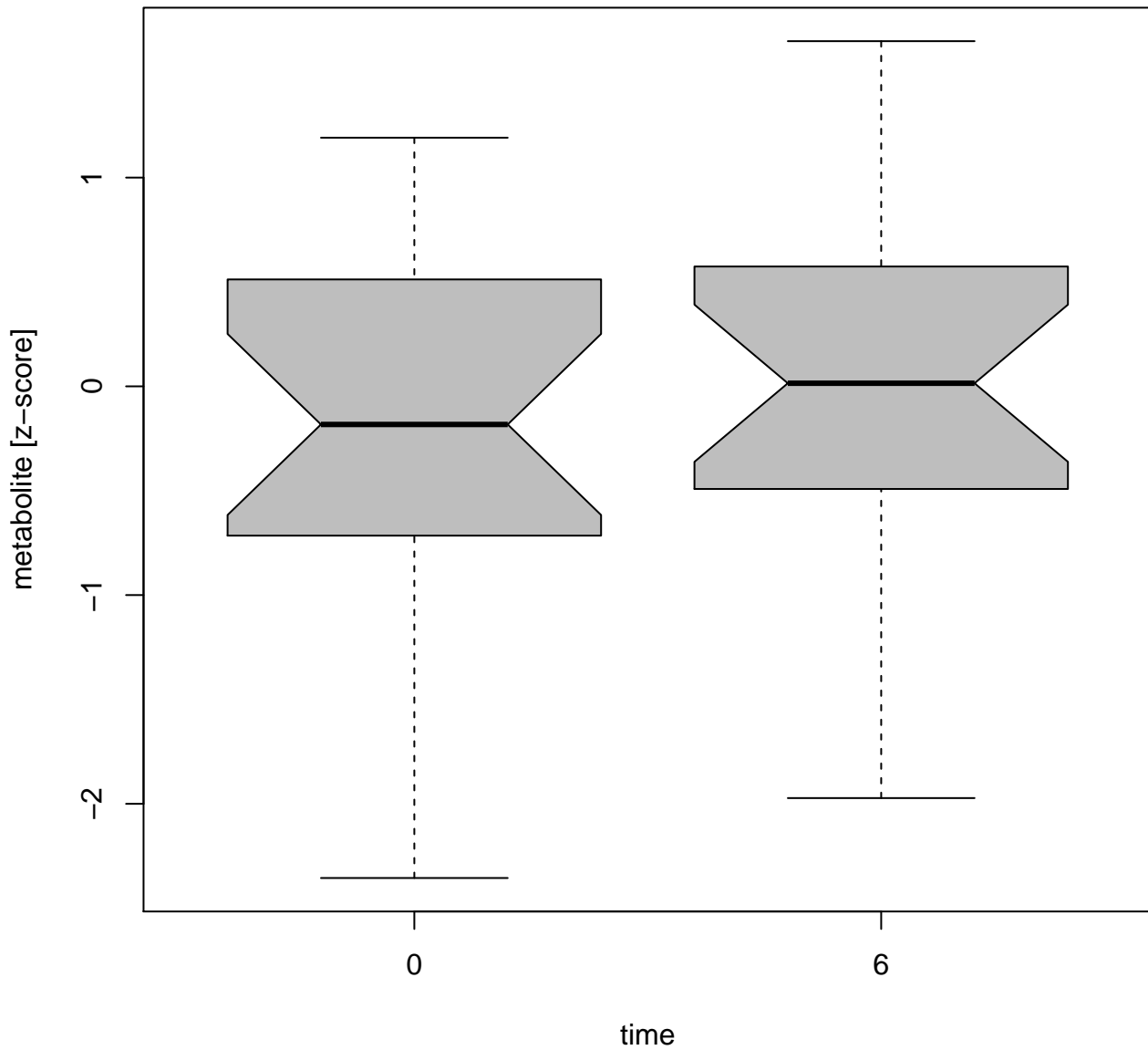
**deoxycarnitine**



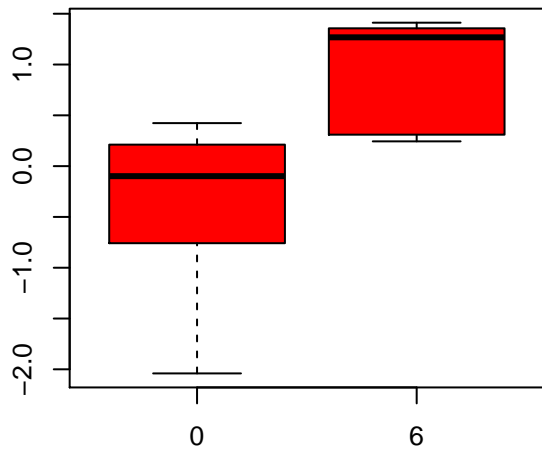
SKOV3



# deoxycarnitine

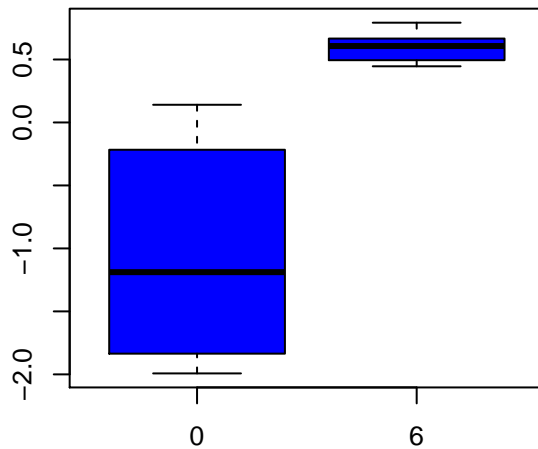


**dihomo-linoleate (20:2n6)**



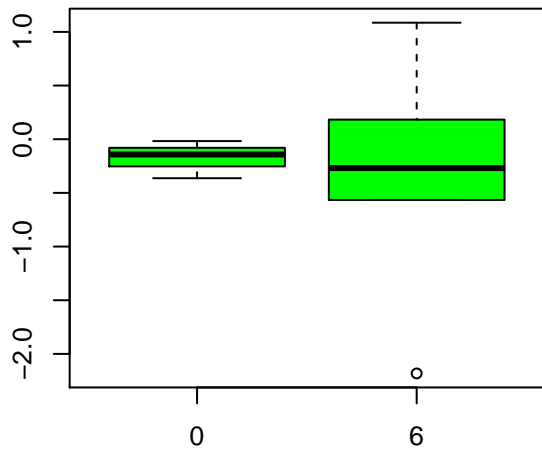
HCT116

**dihomo-linoleate (20:2n6)**



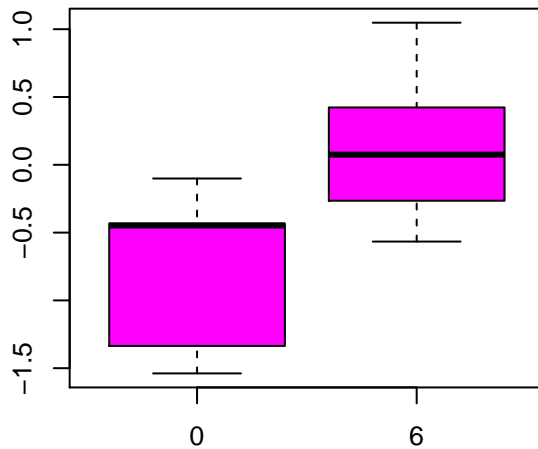
OVCAR

**dihomo-linoleate (20:2n6)**



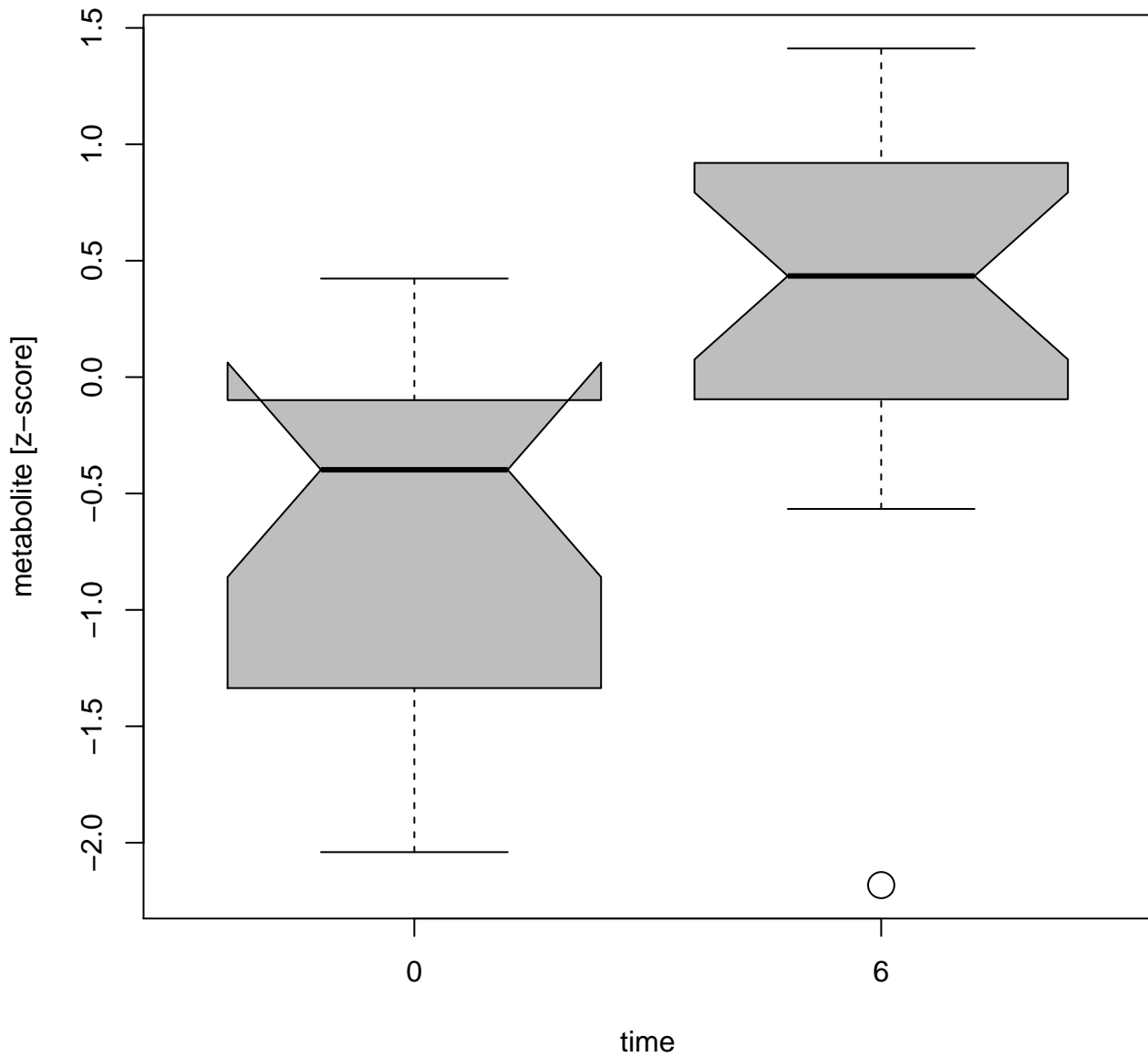
HCT15

**dihomo-linoleate (20:2n6)**

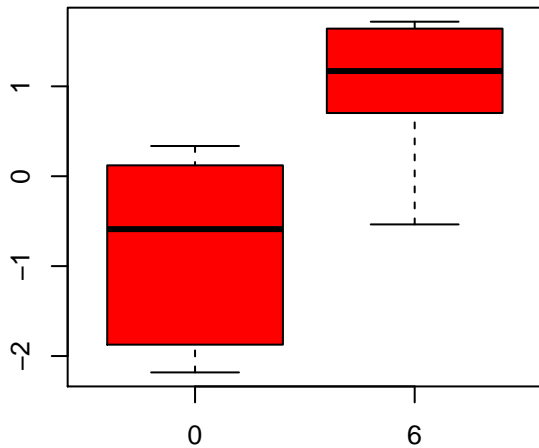


SKOV3

# dihomo-linoleate (20:2n6)

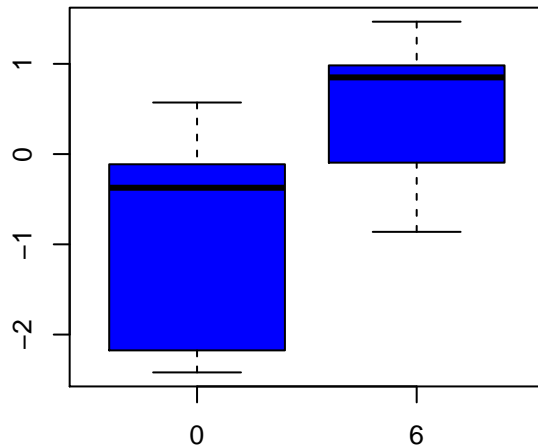


**dihomo-linolenate (20:3n3 or n6)**



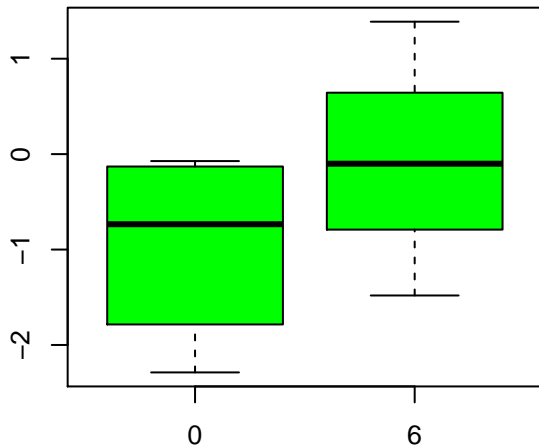
HCT116

**dihomo-linolenate (20:3n3 or n6)**



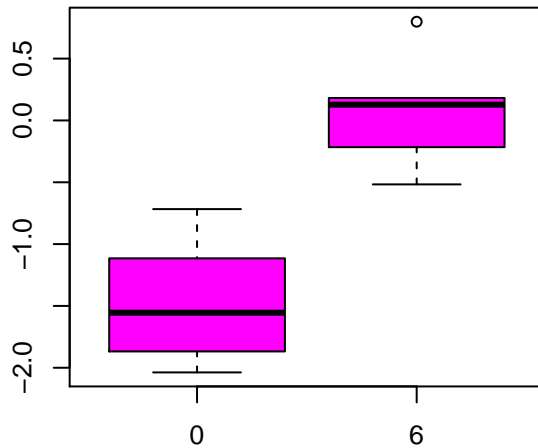
OVCAR

**dihomo-linolenate (20:3n3 or n6)**



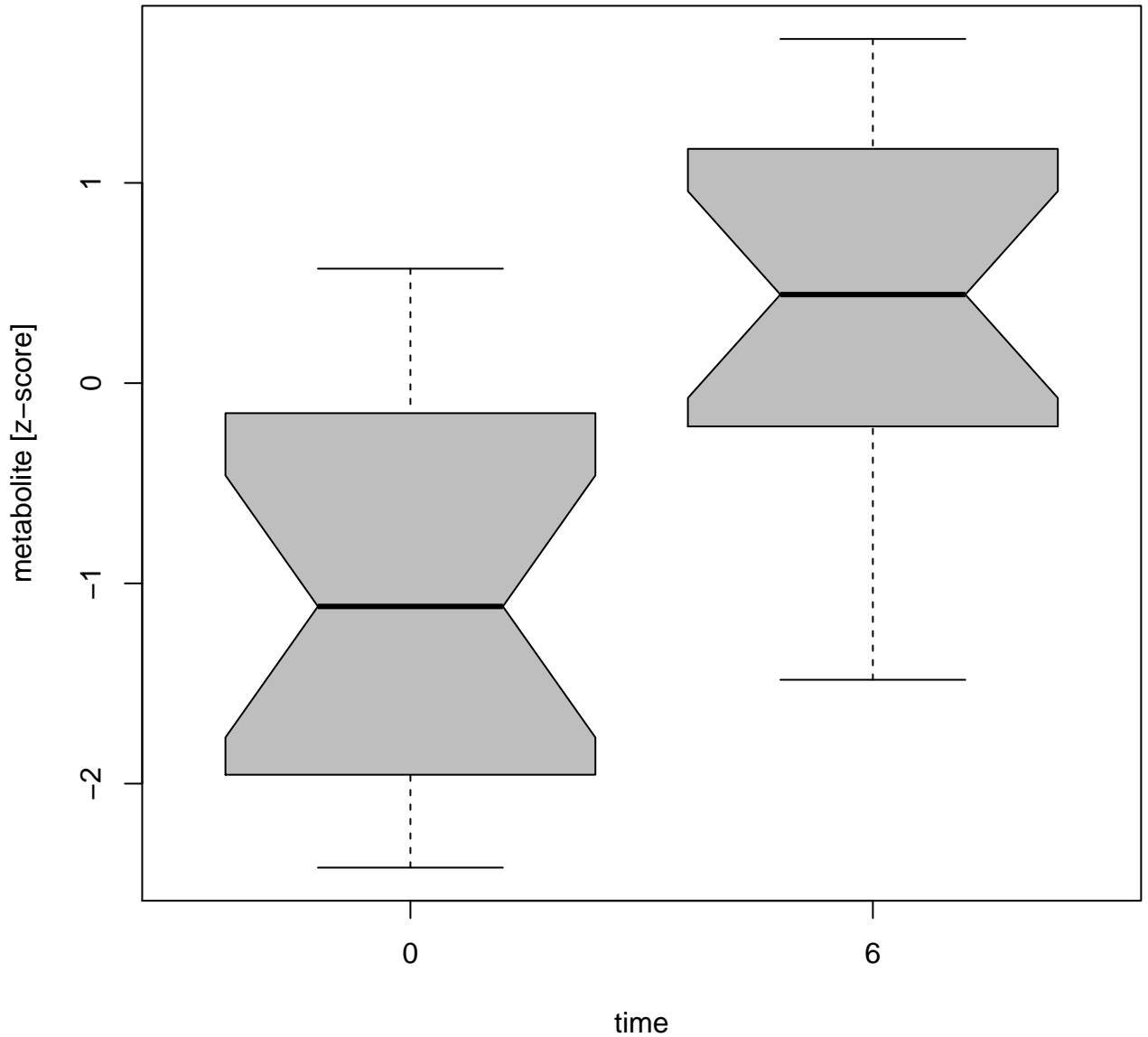
HCT15

**dihomo-linolenate (20:3n3 or n6)**

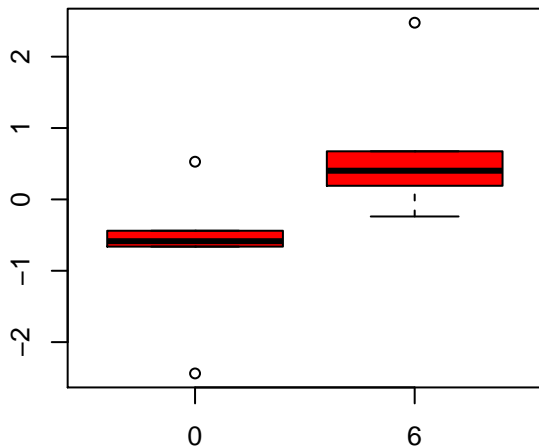


SKOV3

# dihomo-linolenate (20:3n3 or n6)

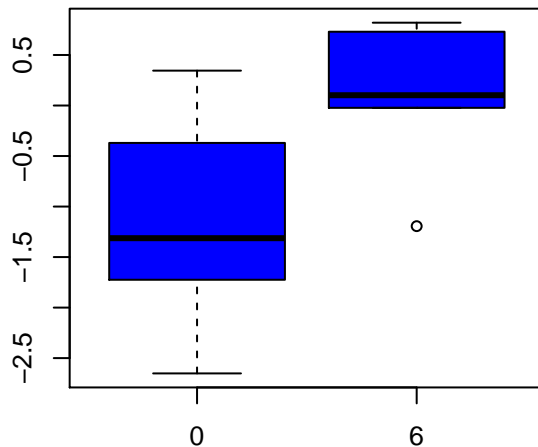


**docosahexaenoate (DHA 22:6n3)**



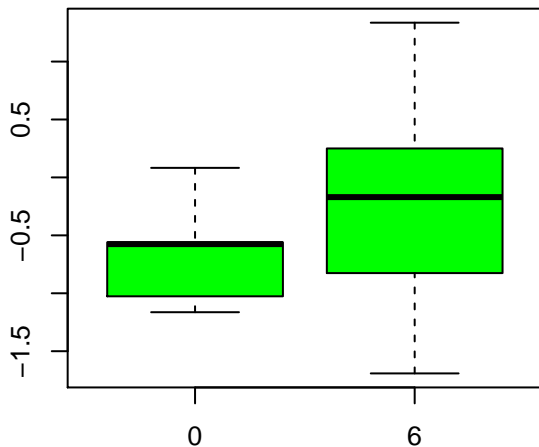
HCT116

**docosahexaenoate (DHA 22:6n3)**



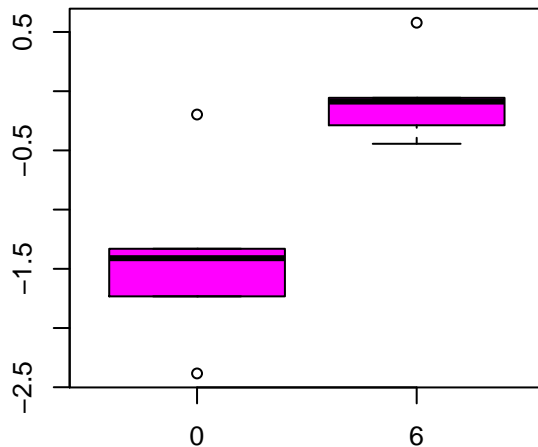
OVCAR

**docosahexaenoate (DHA 22:6n3)**



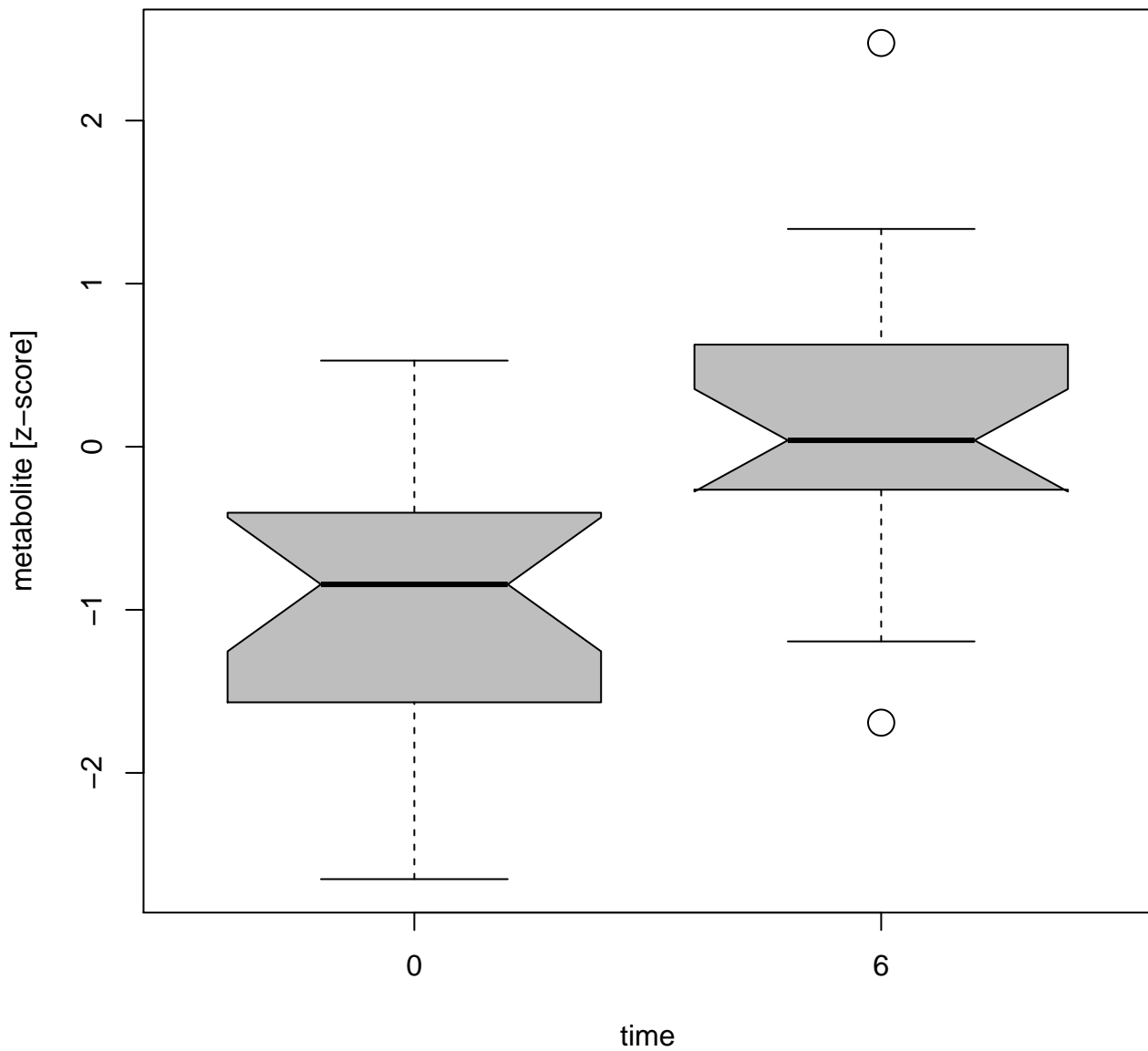
HCT15

**docosahexaenoate (DHA 22:6n3)**

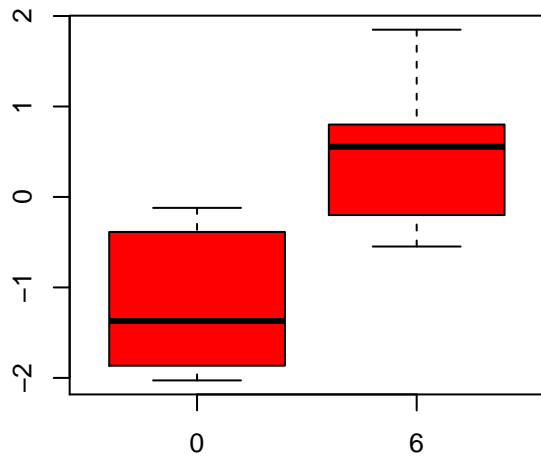


SKOV3

# docosaehaenoate (DHA 22:6n3)

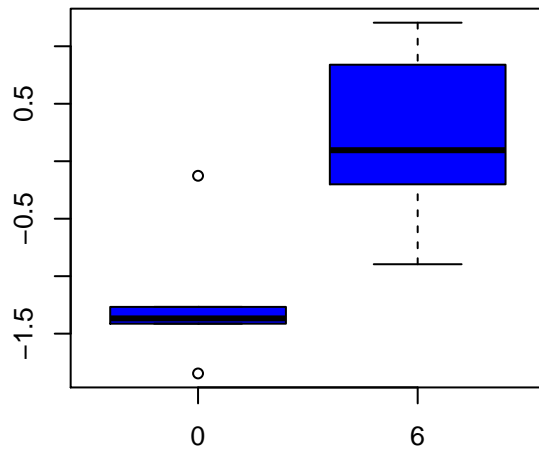


**docosapentaenoate (n3 DPA 22:5n3)**



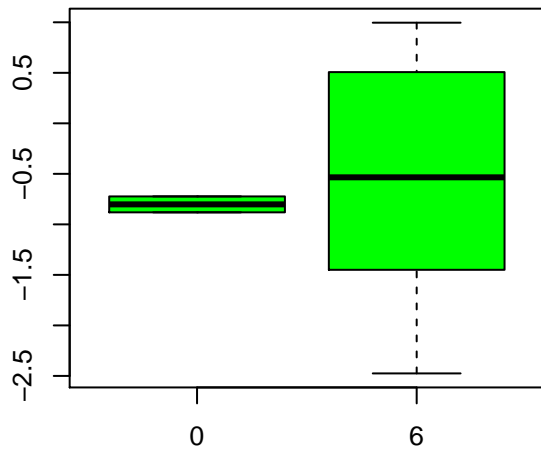
HCT116

**docosapentaenoate (n3 DPA 22:5n3)**



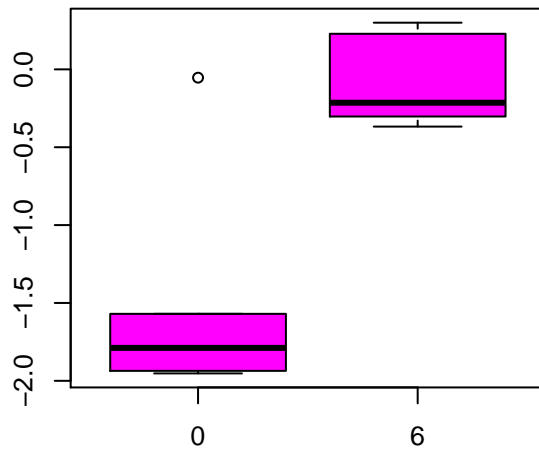
OVCAR

**docosapentaenoate (n3 DPA 22:5n3)**



HCT15

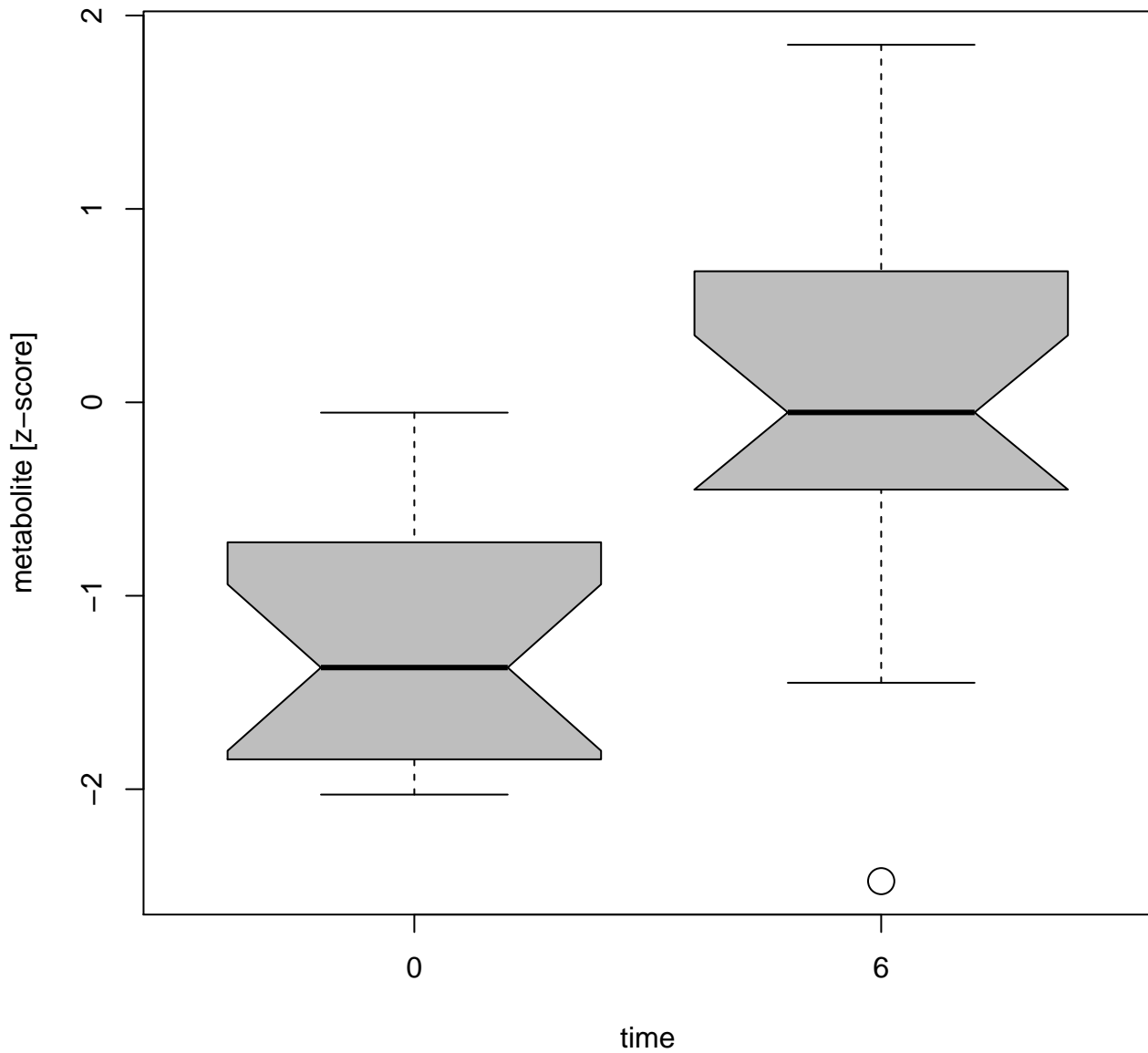
**docosapentaenoate (n3 DPA 22:5n3)**



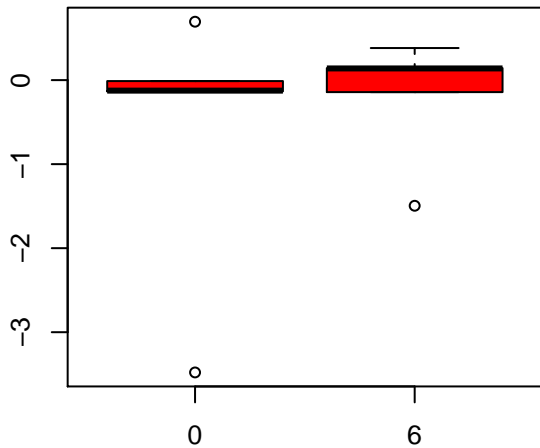
SKOV3



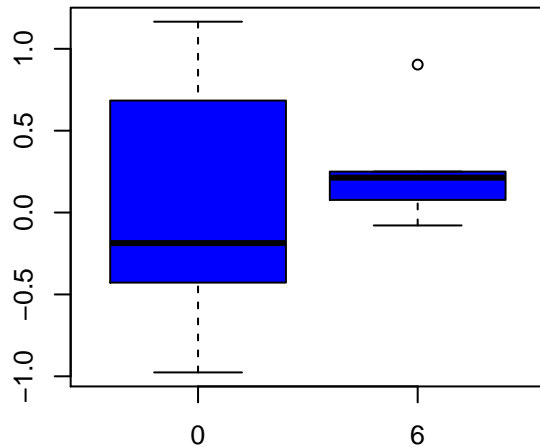
# docosapentaenoate (n3 DPA 22:5n3)



**EDTA**

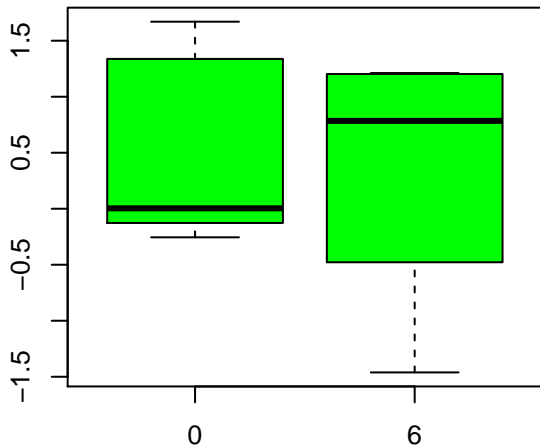


**EDTA**



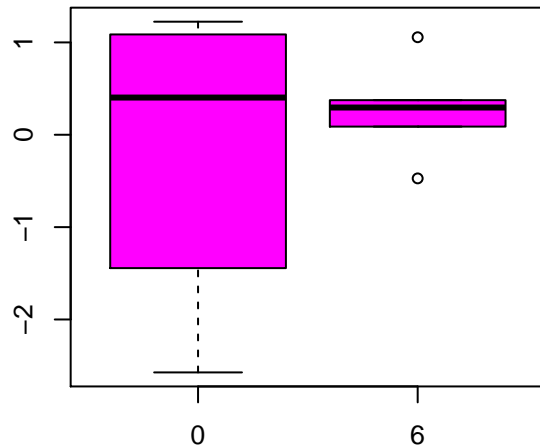
**HCT116**

**EDTA**



**OVCAR**

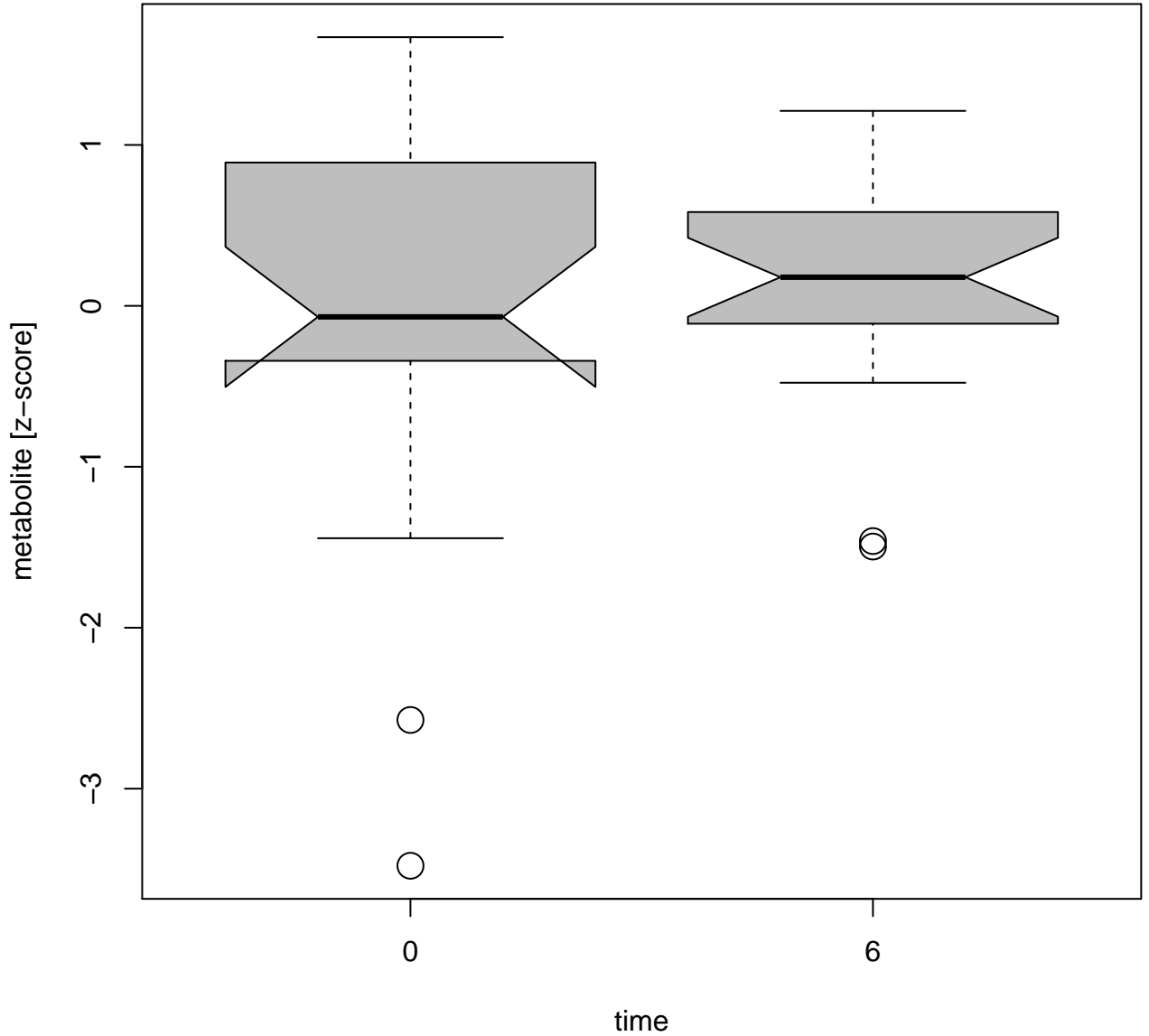
**EDTA**



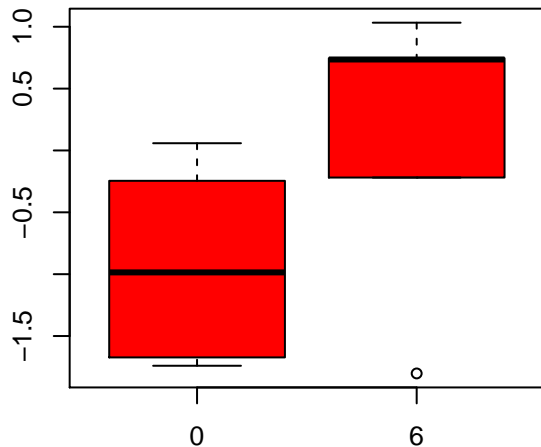
**HCT15**

**SKOV3**

# EDTA

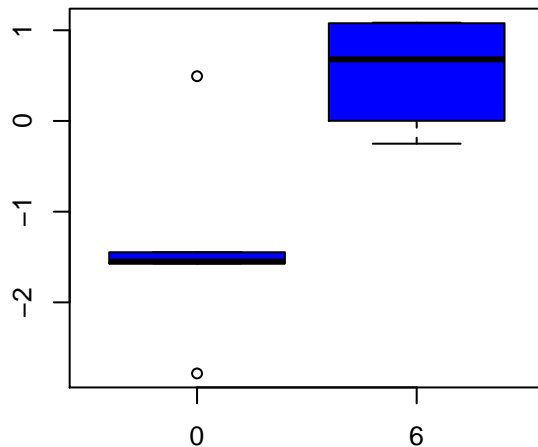


**eicosapentaenoate (EPA 20:5n3)**



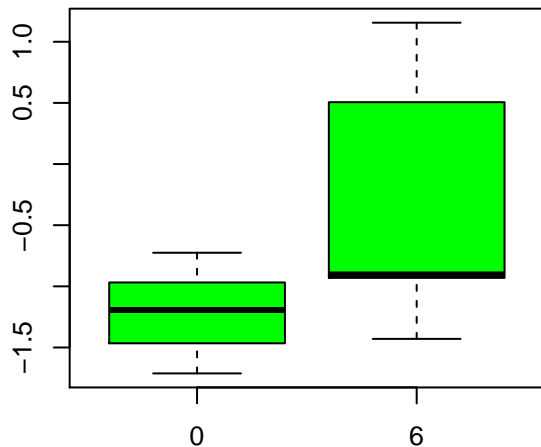
HCT116

**eicosapentaenoate (EPA 20:5n3)**



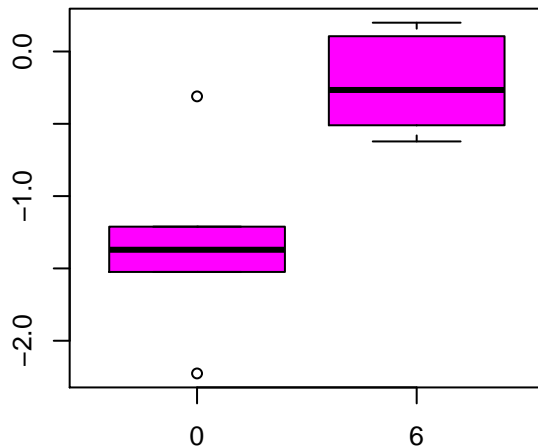
OVCAR

**eicosapentaenoate (EPA 20:5n3)**



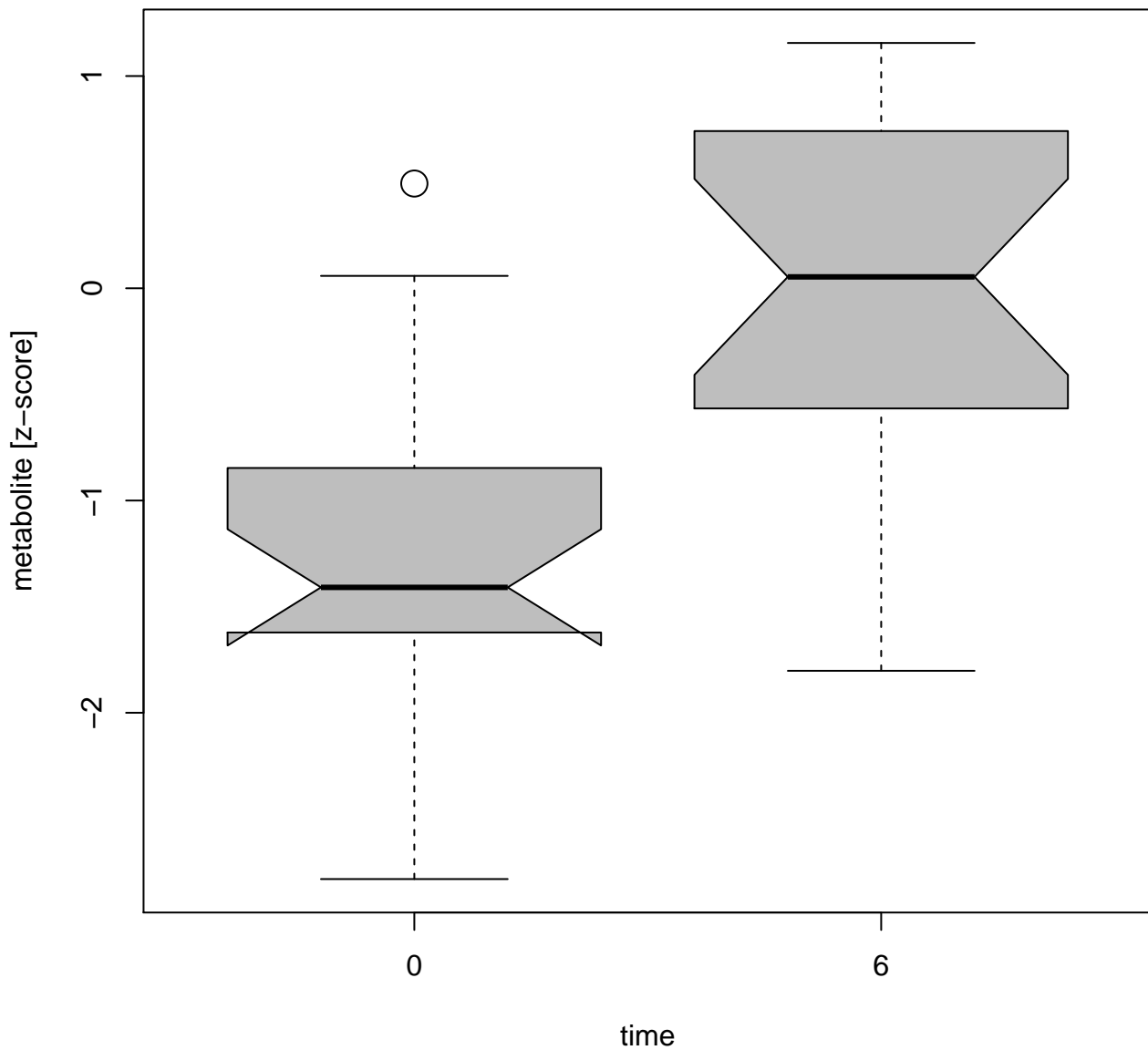
HCT15

**eicosapentaenoate (EPA 20:5n3)**

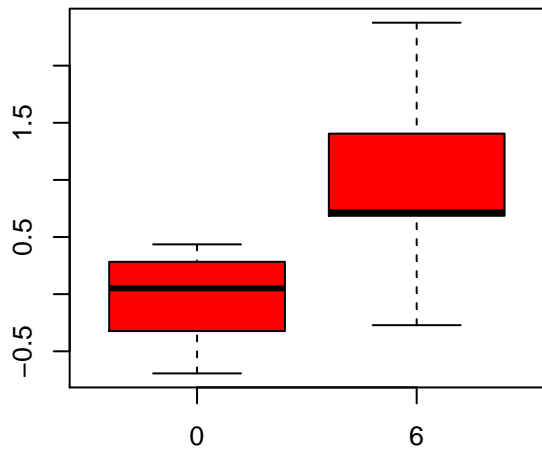


SKOV3

# eicosapentaenoate (EPA 20:5n3)

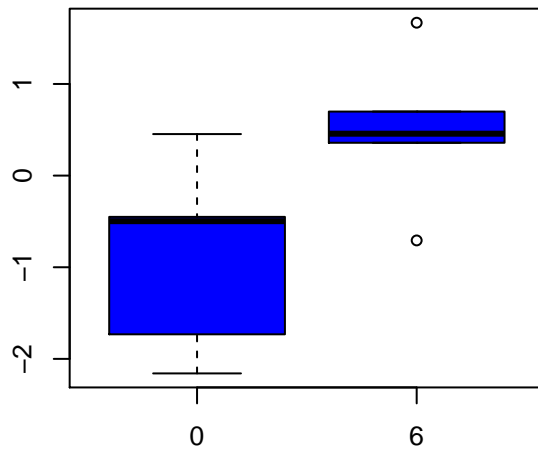


**eicosenoate (20:1n9 or 11)**



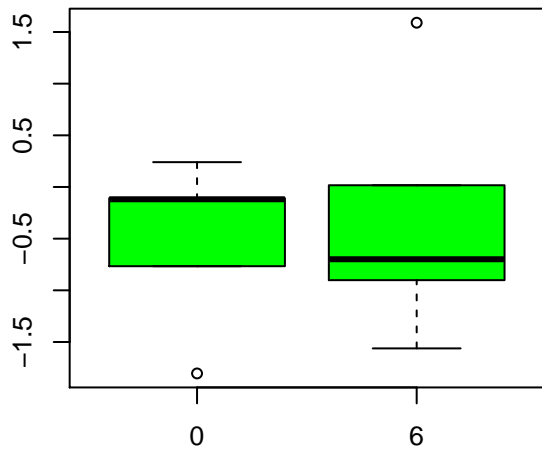
HCT116

**eicosenoate (20:1n9 or 11)**



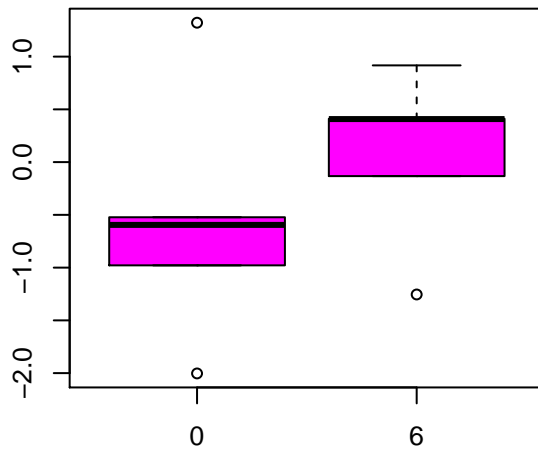
OVCAR

**eicosenoate (20:1n9 or 11)**



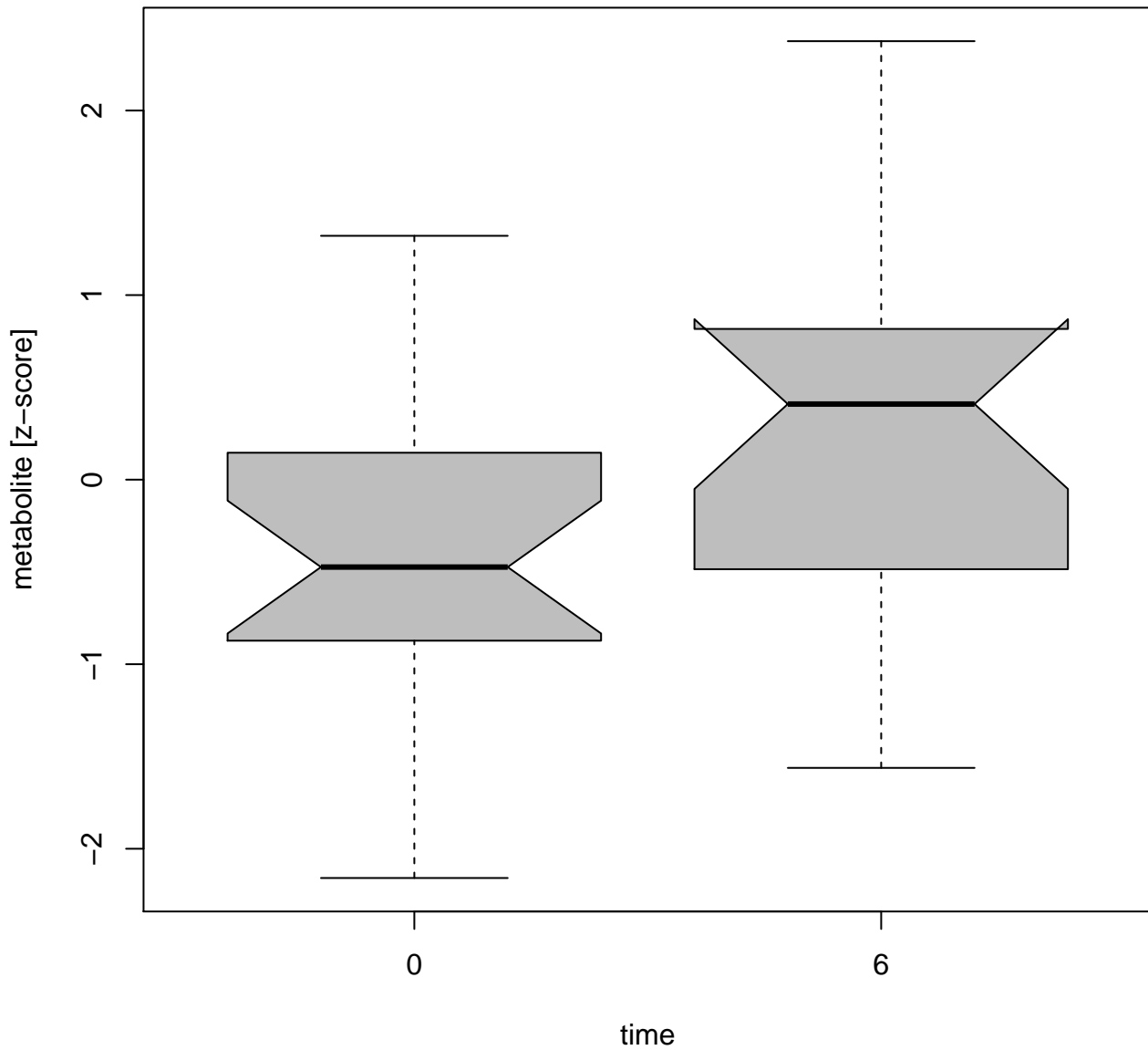
HCT15

**eicosenoate (20:1n9 or 11)**

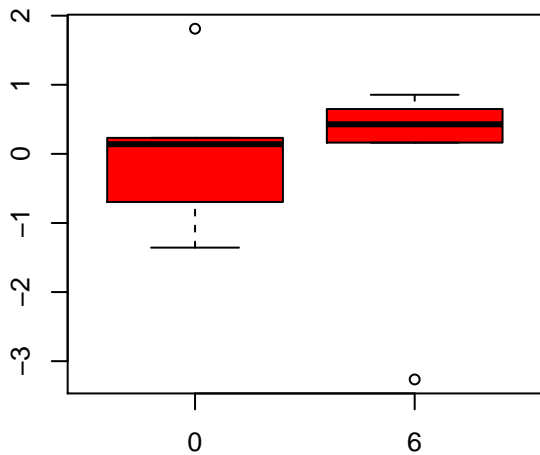


SKOV3

# eicosenoate (20:1n9 or 11)

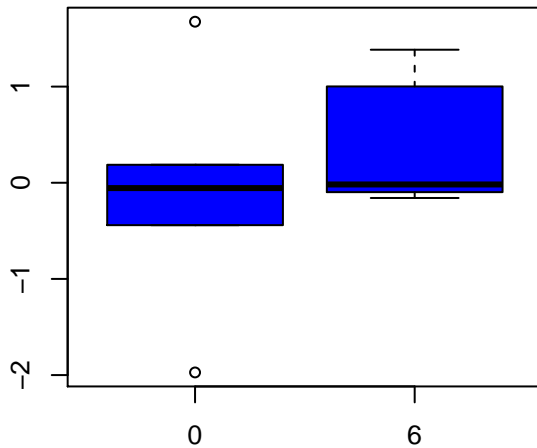


**fumarate**



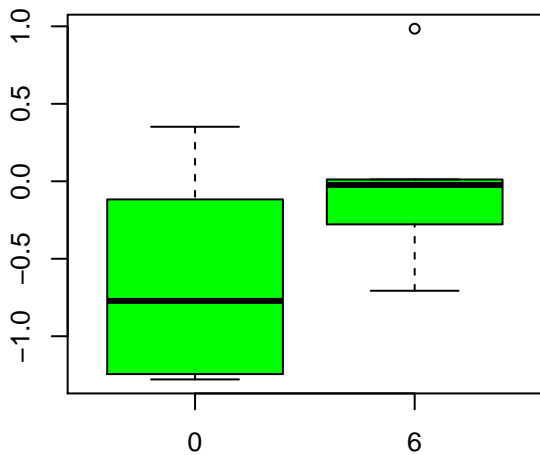
HCT116

**fumarate**



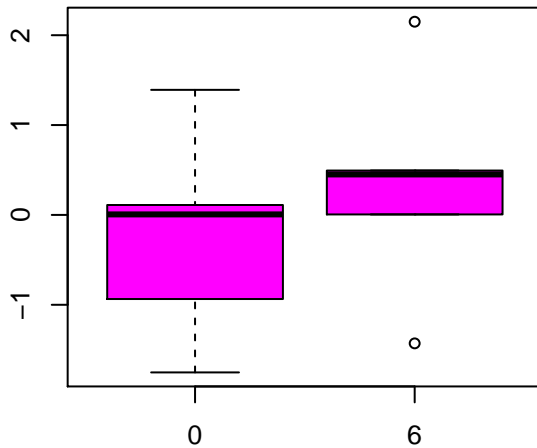
OVCAR

**fumarate**



HCT15

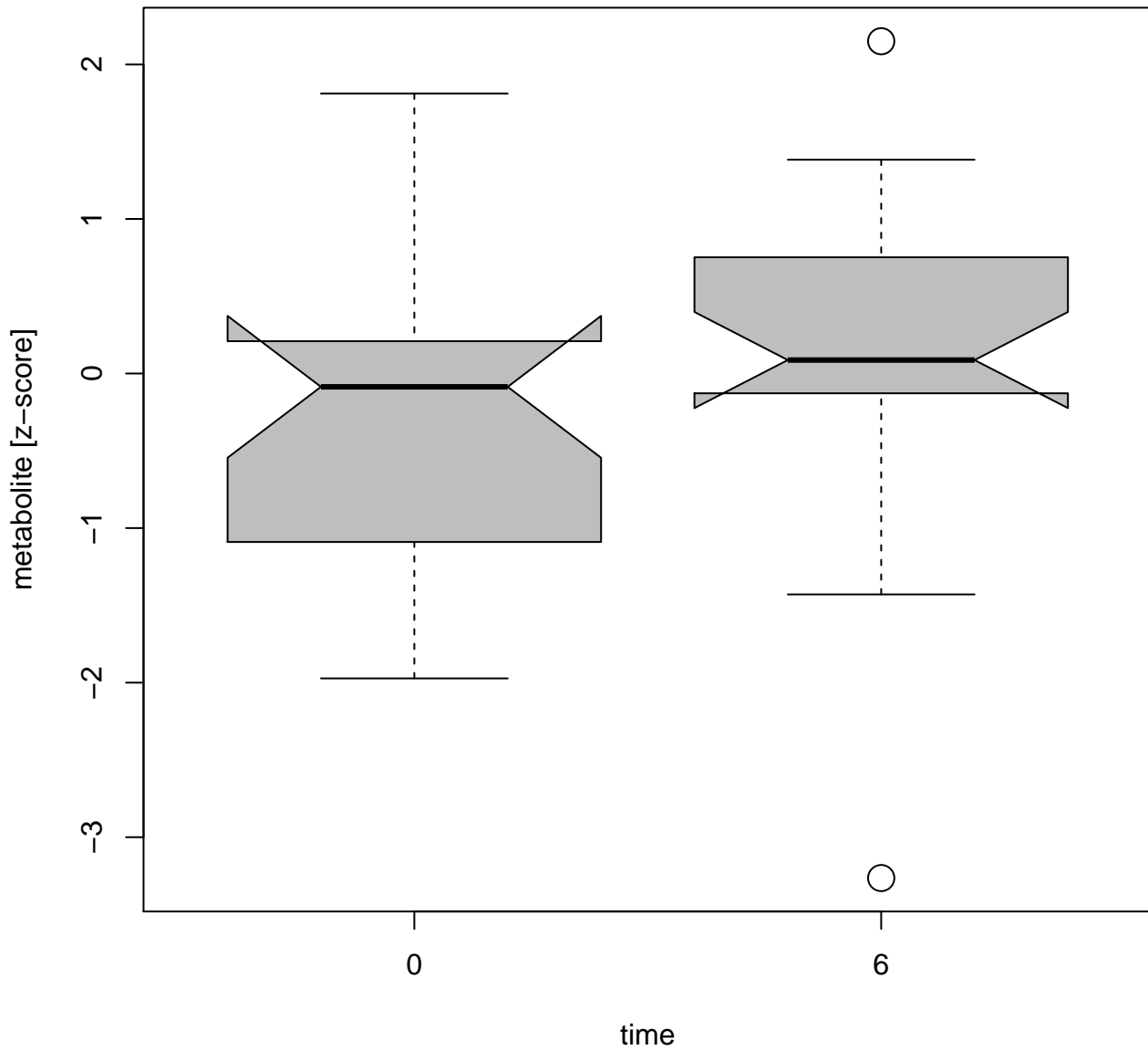
**fumarate**



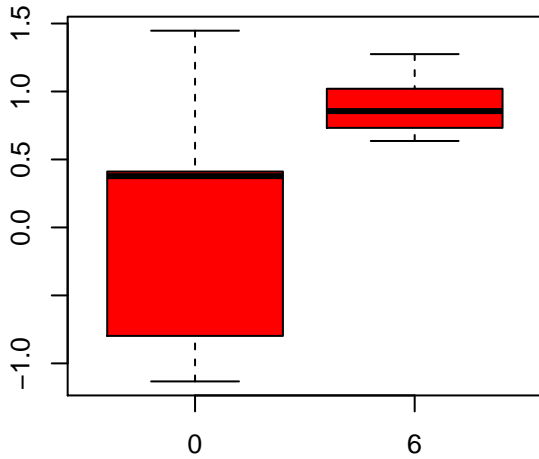
SKOV3



# fumarate

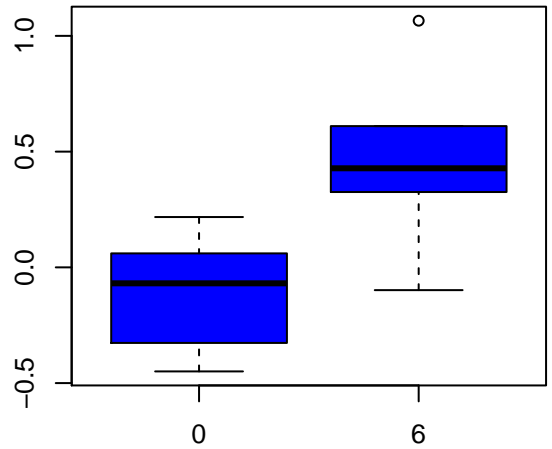


**gamma-glutamylglutamate**



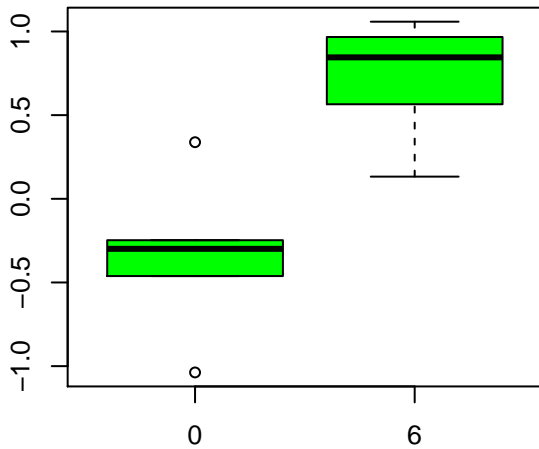
HCT116

**gamma-glutamylglutamate**



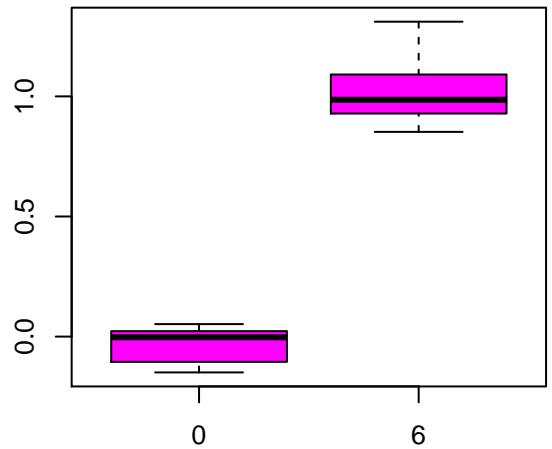
OVCAR

**gamma-glutamylglutamate**



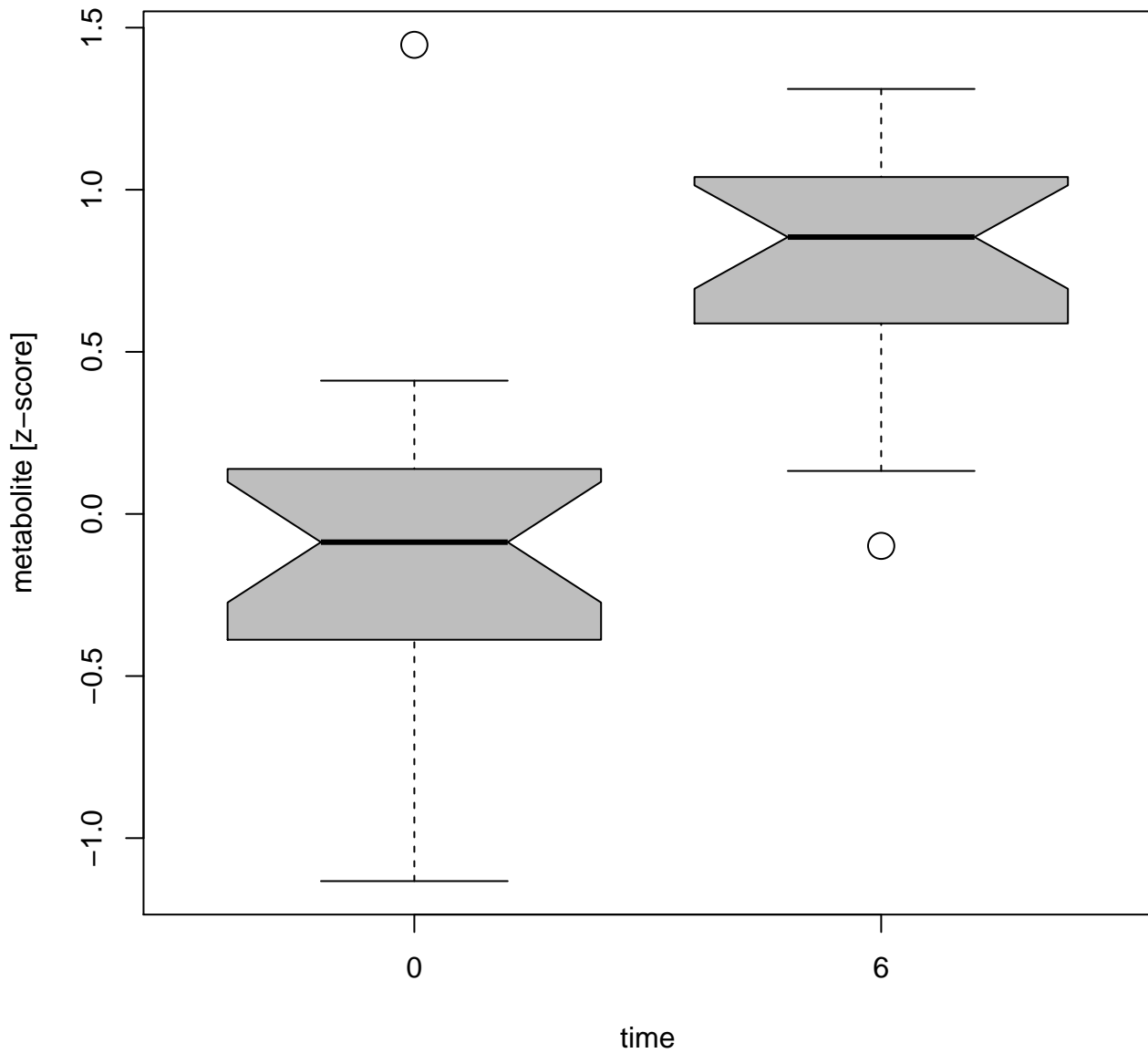
HCT15

**gamma-glutamylglutamate**

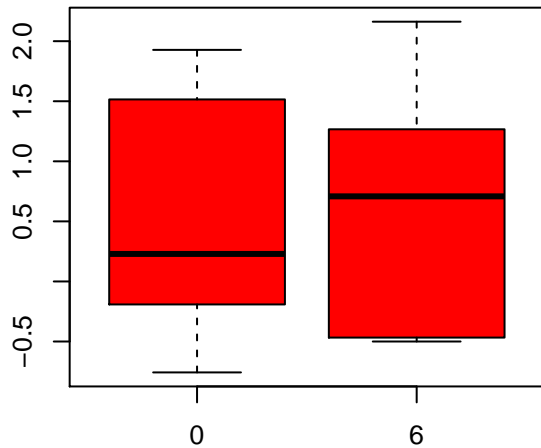


SKOV3

# gamma-glutamylglutamate

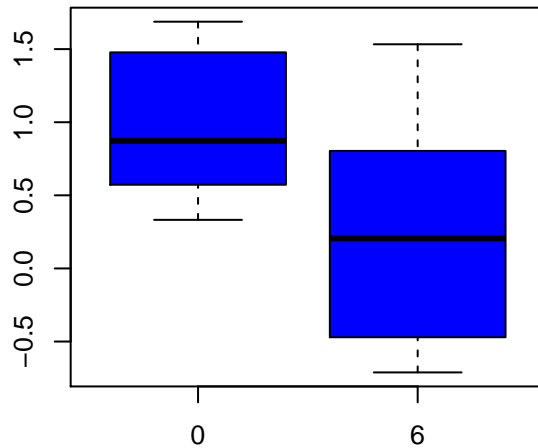


**glucose**



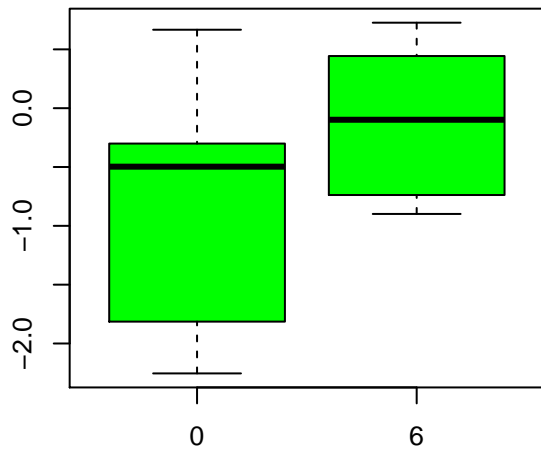
HCT116

**glucose**



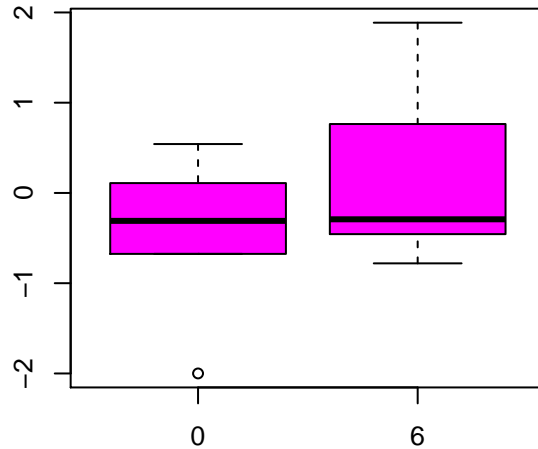
OVCAR

**glucose**



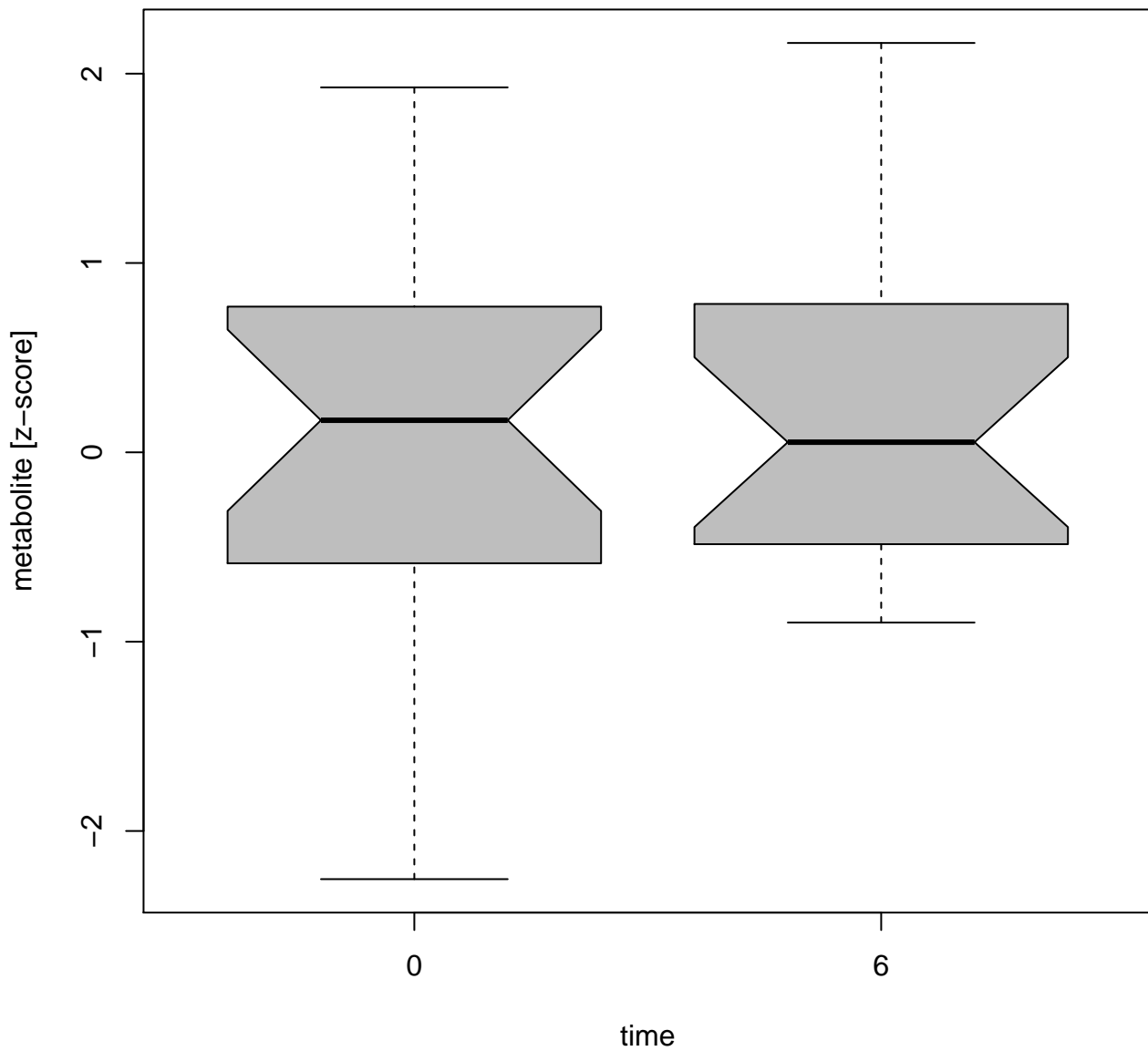
HCT15

**glucose**

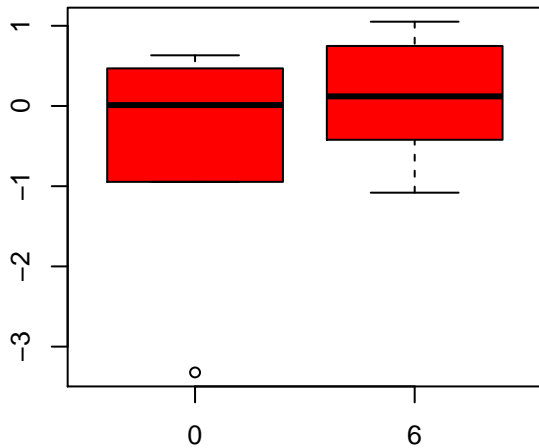


SKOV3

# glucose

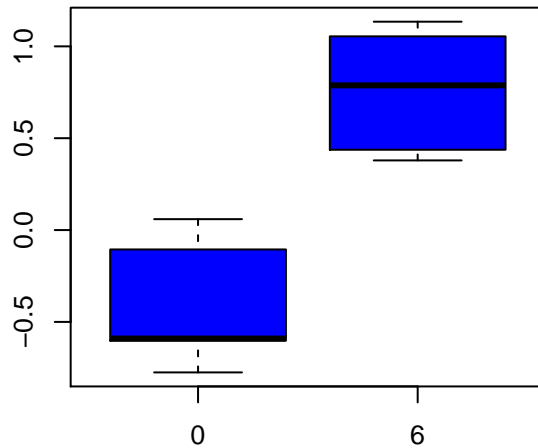


**glutamate**



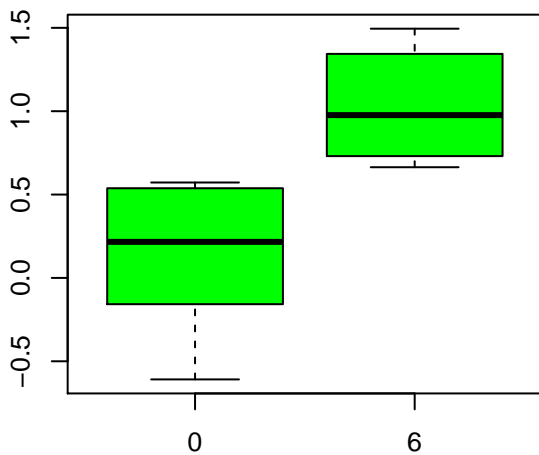
HCT116

**glutamate**



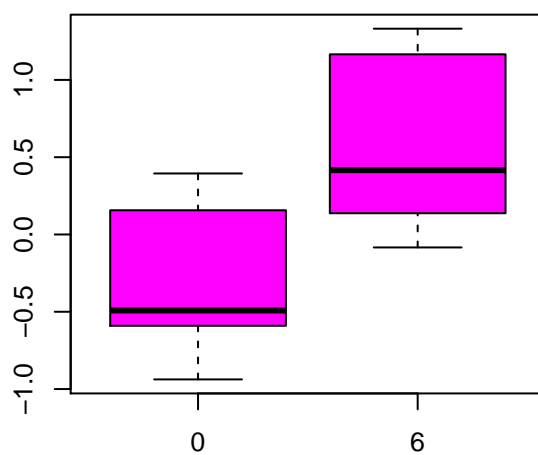
OVCAR

**glutamate**



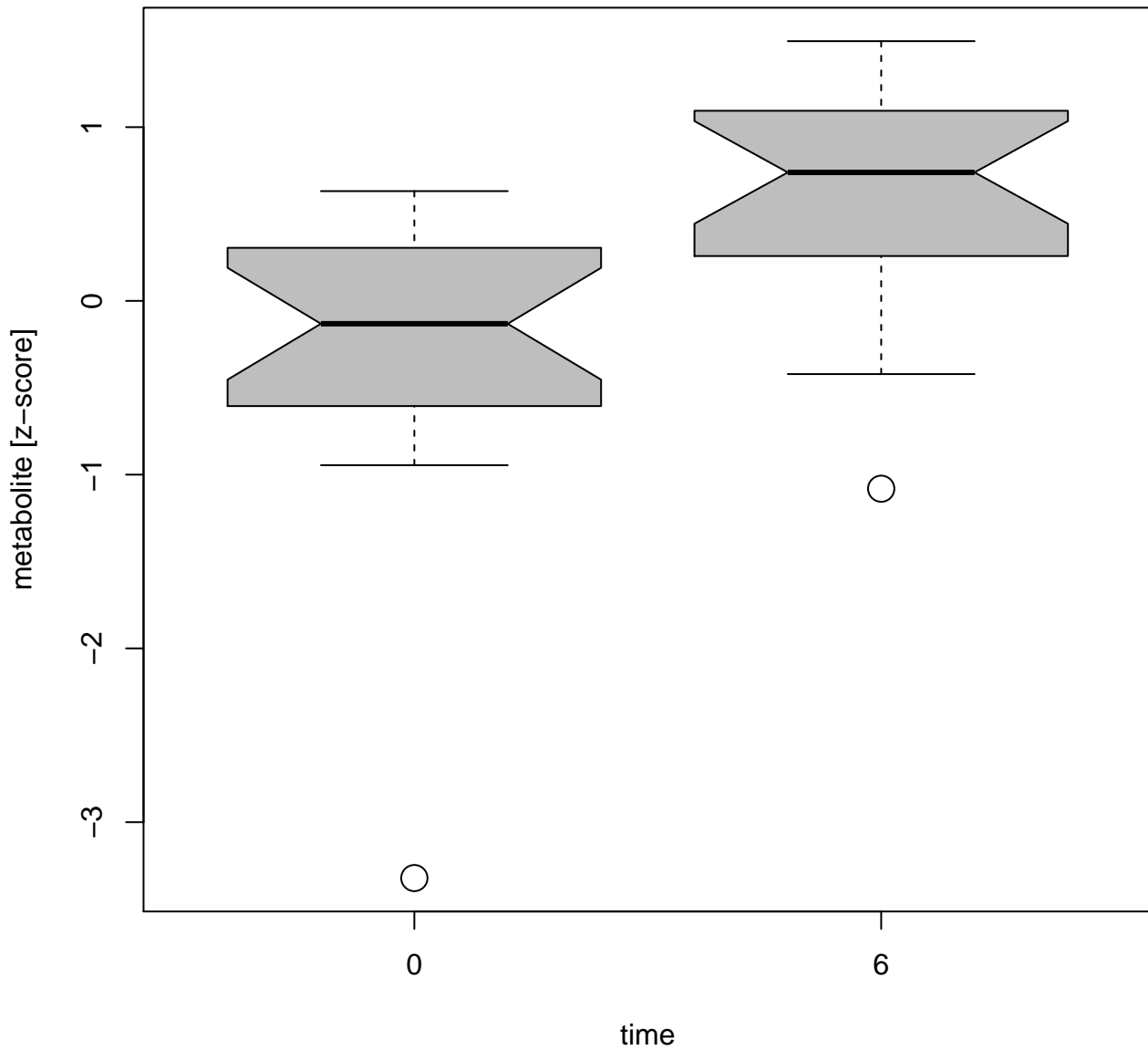
HCT15

**glutamate**

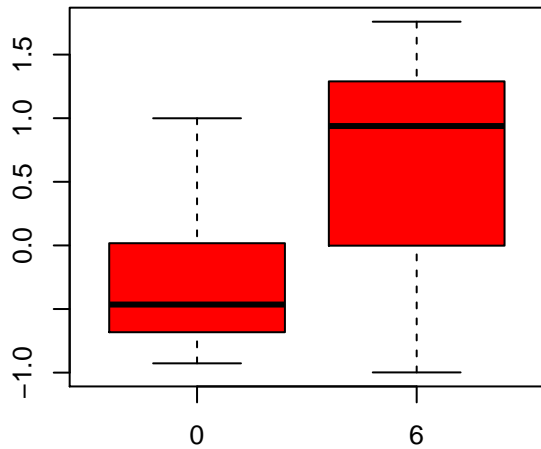


SKOV3

# glutamate

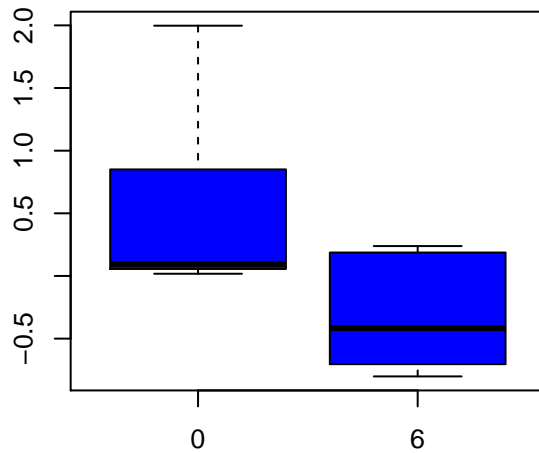


**glutamine**



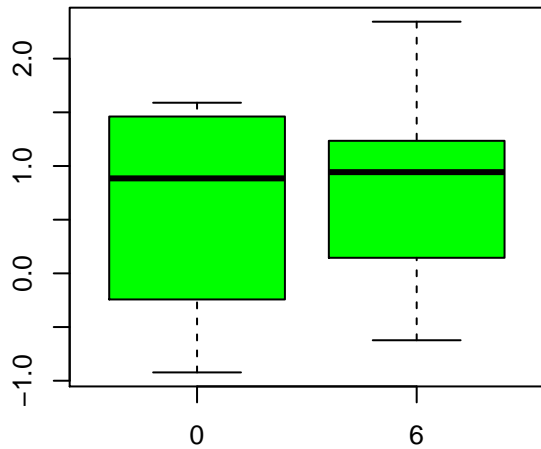
HCT116

**glutamine**



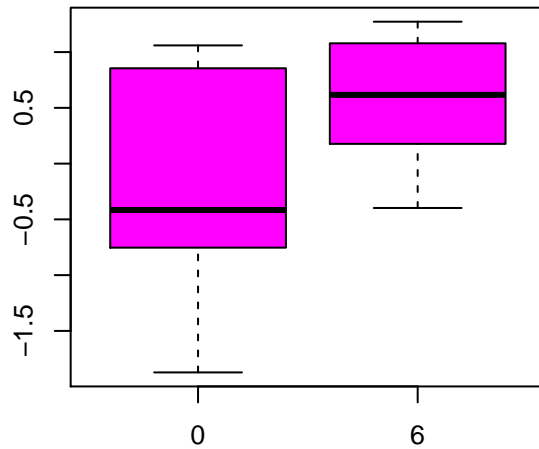
OVCAR

**glutamine**



HCT15

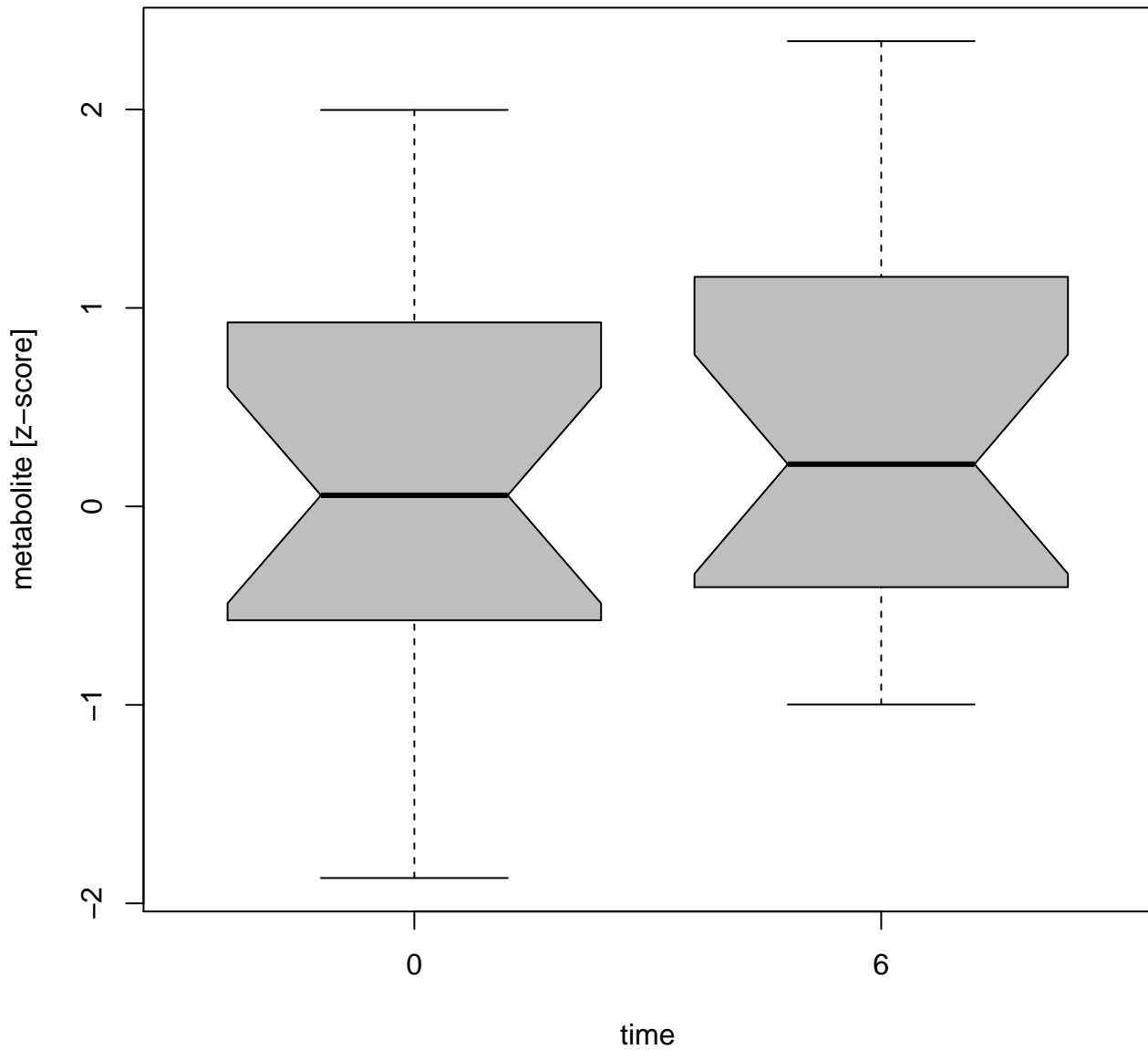
**glutamine**



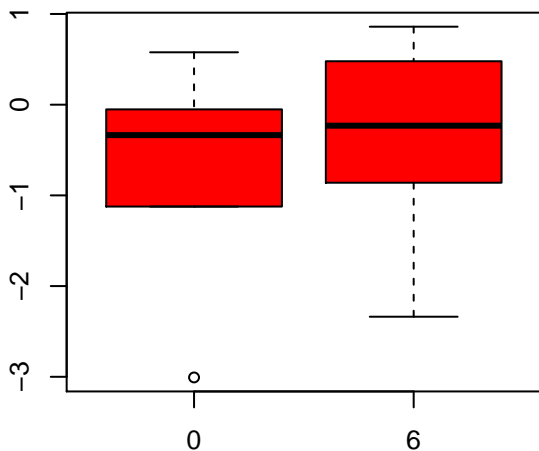
SKOV3



# glutamine

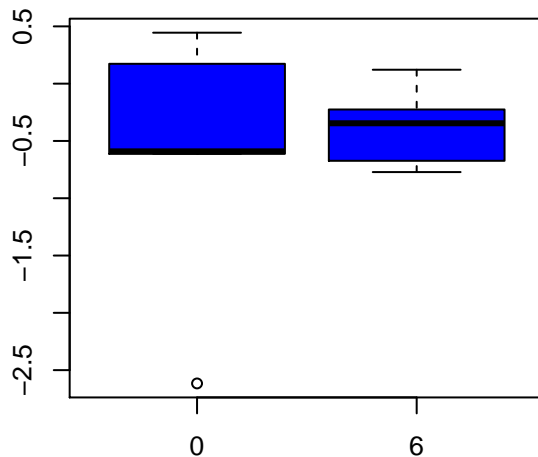


**glutathione, oxidized (GSSG)**



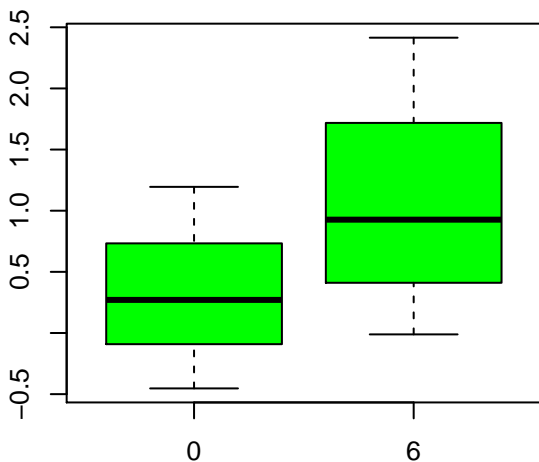
HCT116

**glutathione, oxidized (GSSG)**



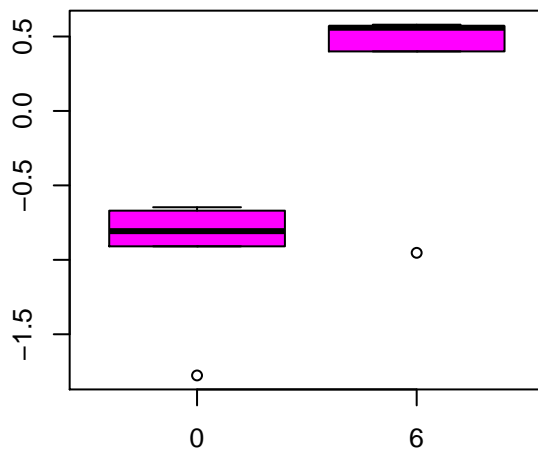
OVCAR

**glutathione, oxidized (GSSG)**



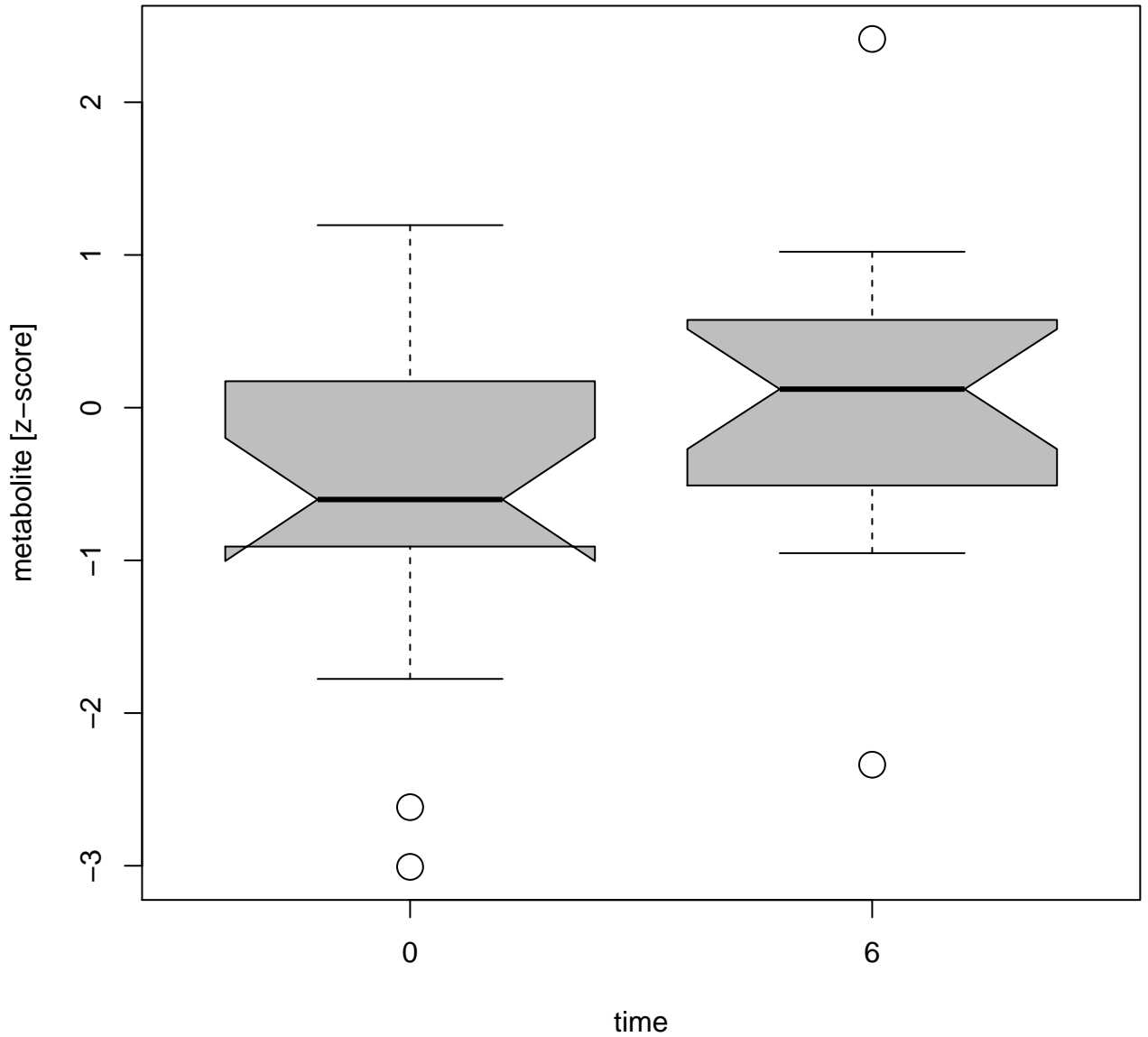
HCT15

**glutathione, oxidized (GSSG)**

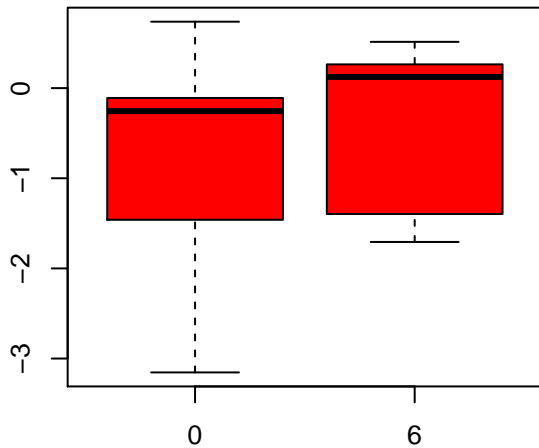


SKOV3

# glutathione, oxidized (GSSG)

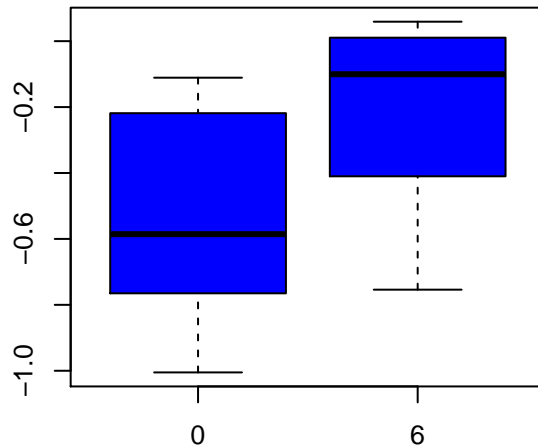


**glutathione, reduced (GSH)**



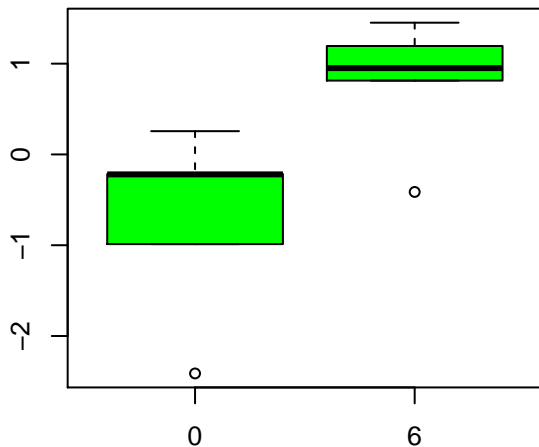
HCT116

**glutathione, reduced (GSH)**



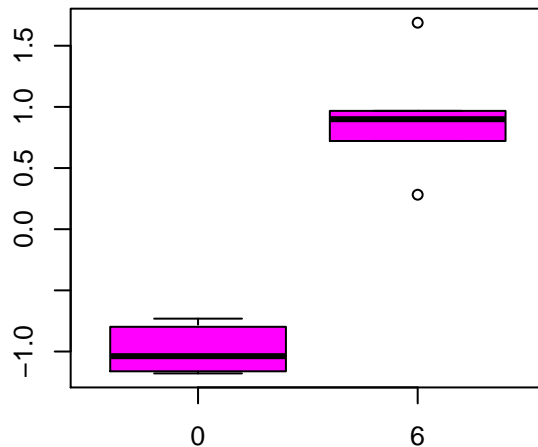
OVCAR

**glutathione, reduced (GSH)**



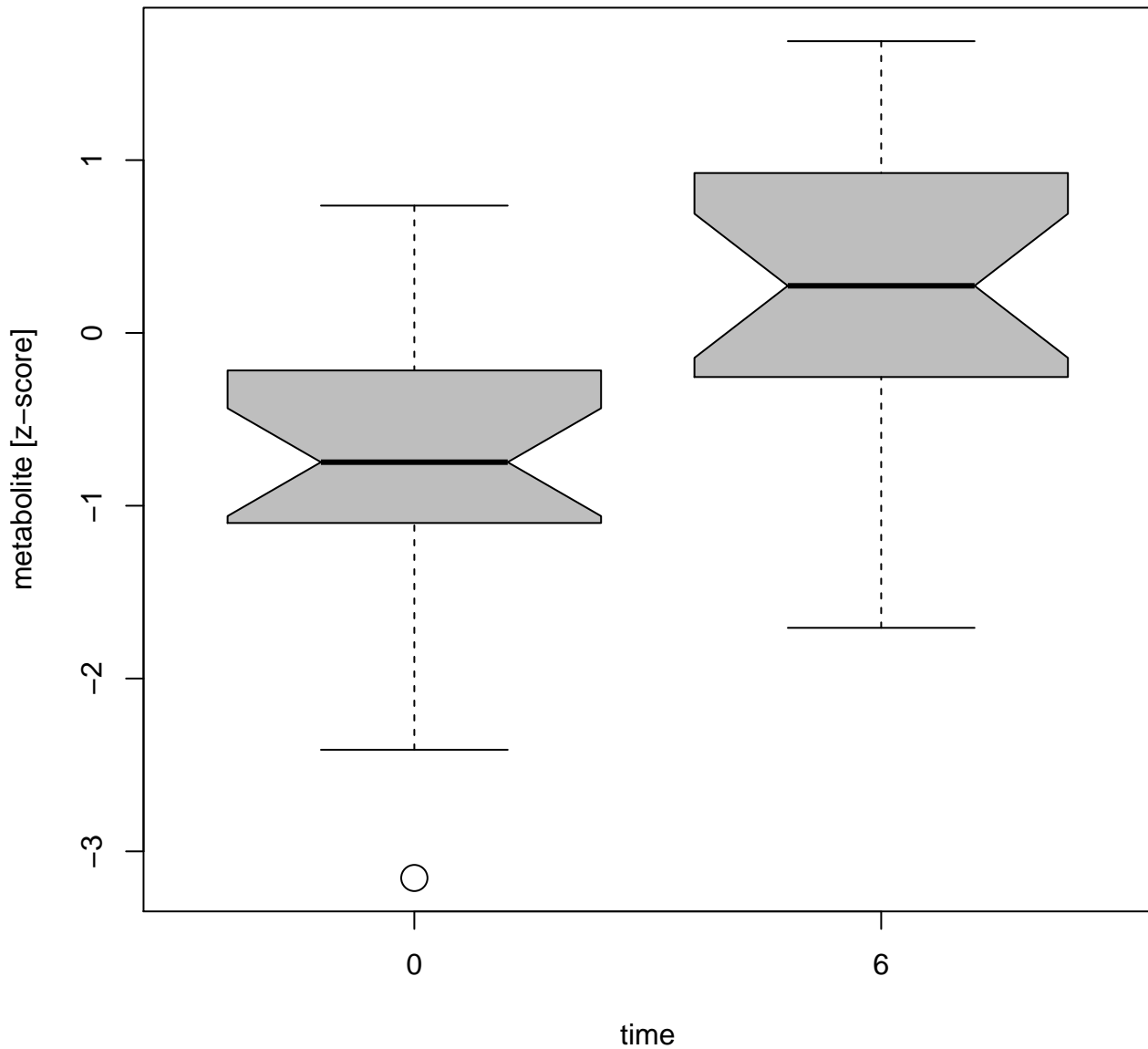
HCT15

**glutathione, reduced (GSH)**

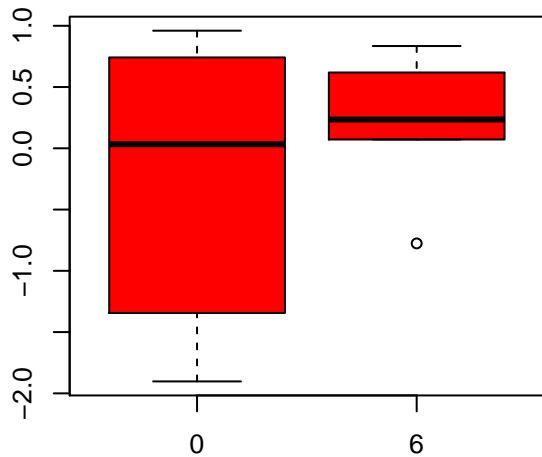


SKOV3

# glutathione, reduced (GSH)

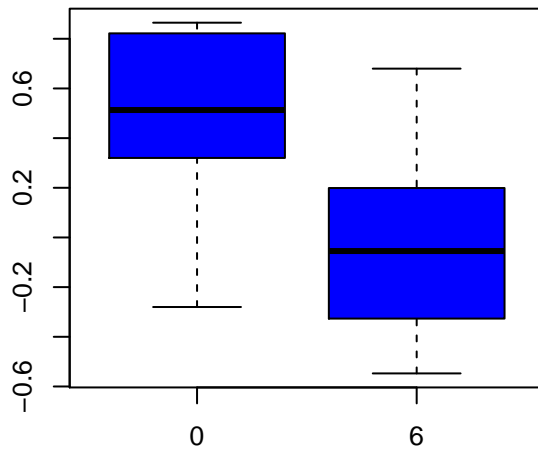


**glycerol**



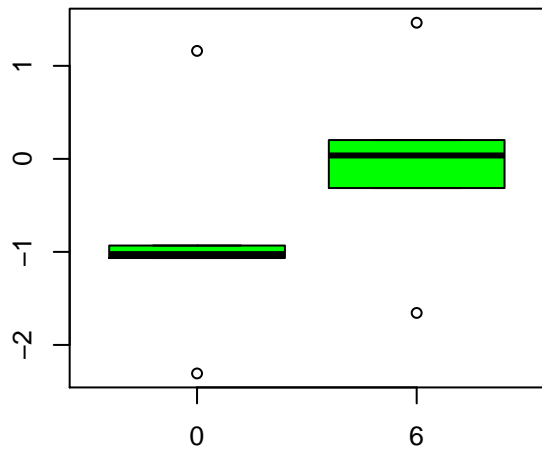
HCT116

**glycerol**



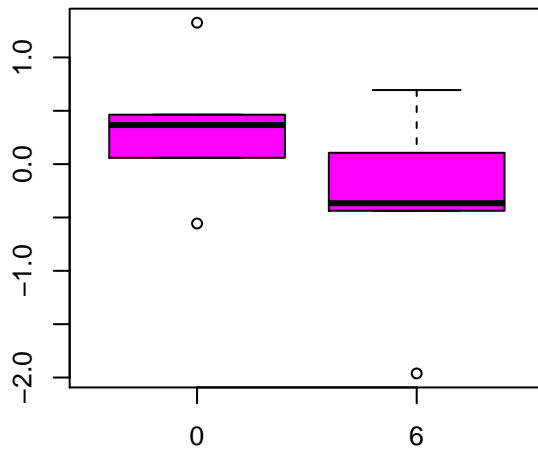
OVCAR

**glycerol**



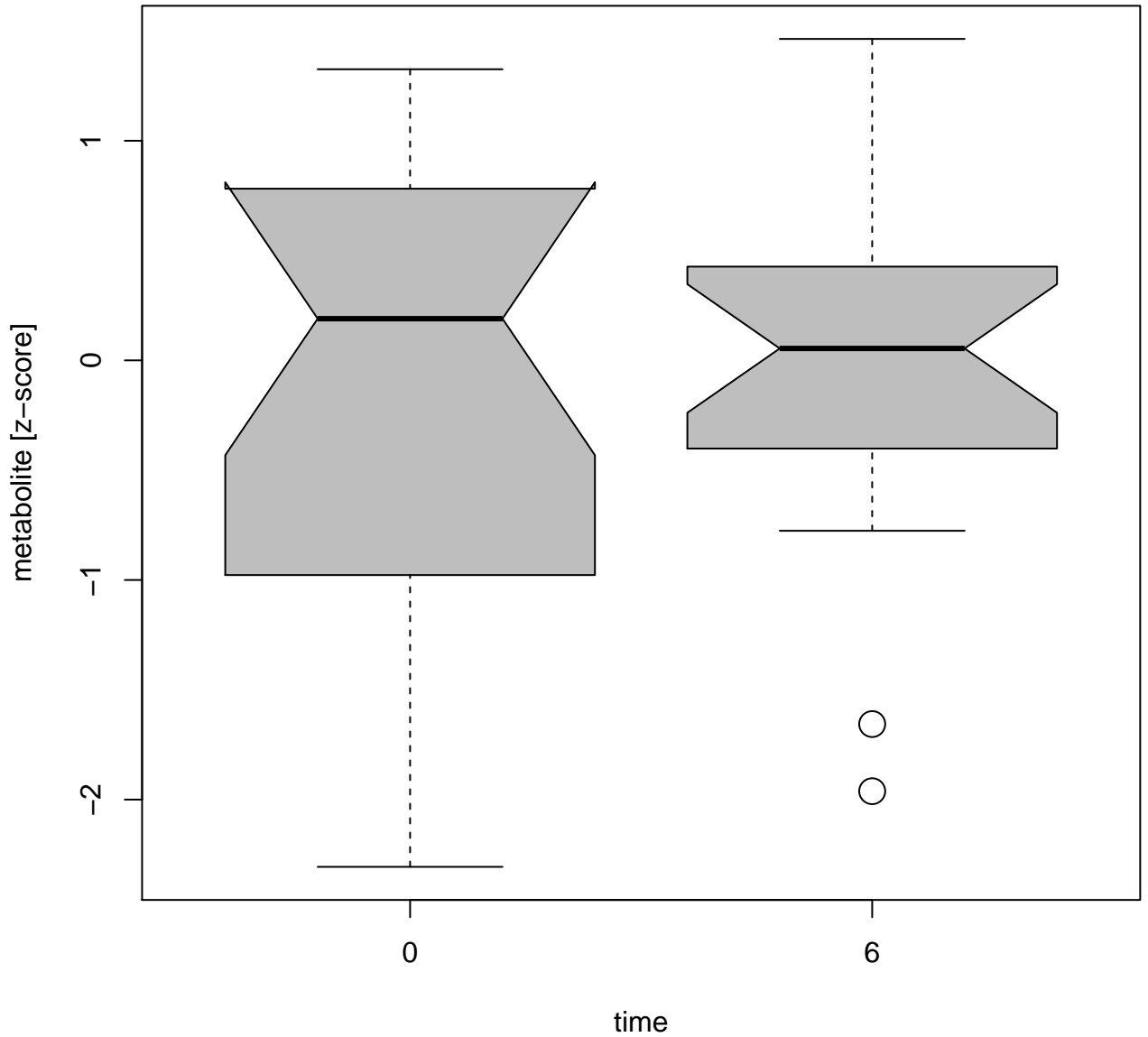
HCT15

**glycerol**

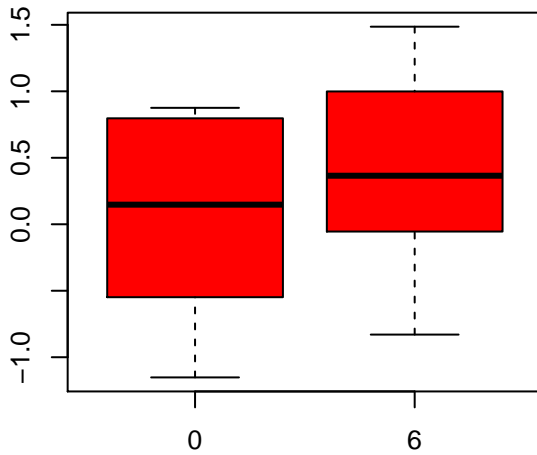


SKOV3

# glycerol

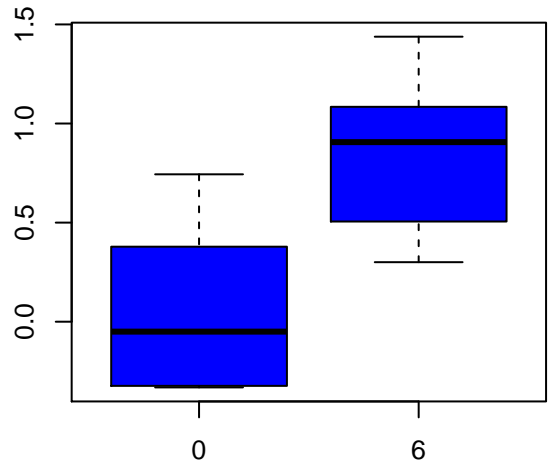


**glycerol 3-phosphate (G3P)**



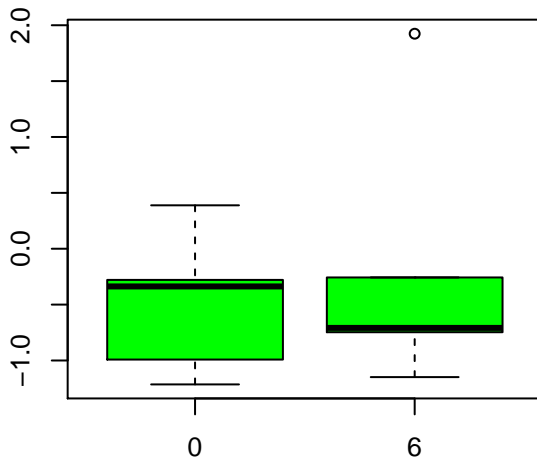
HCT116

**glycerol 3-phosphate (G3P)**



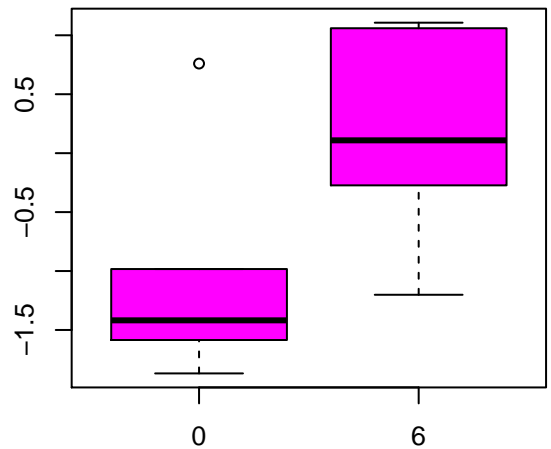
OVCAR

**glycerol 3-phosphate (G3P)**



HCT15

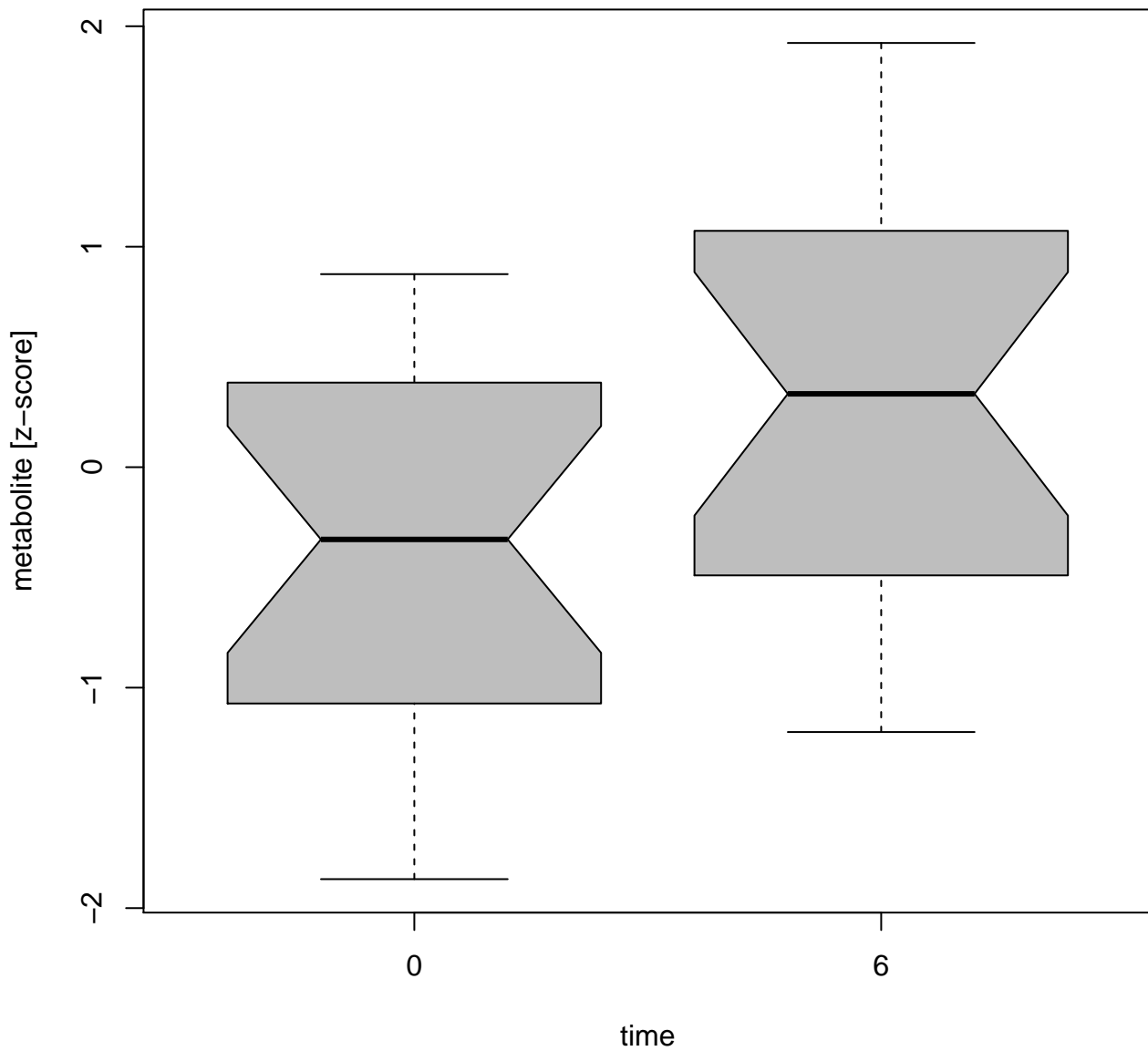
**glycerol 3-phosphate (G3P)**



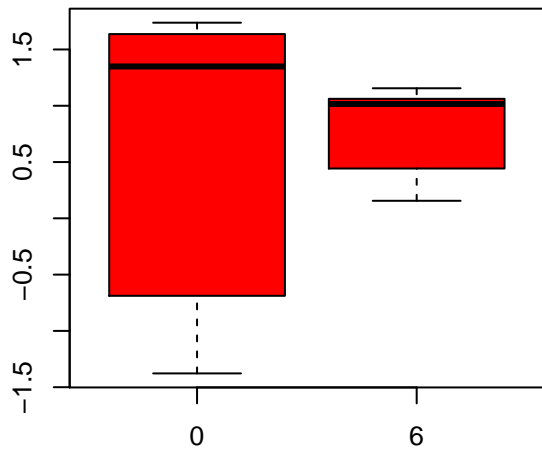
SKOV3



# glycerol 3-phosphate (G3P)

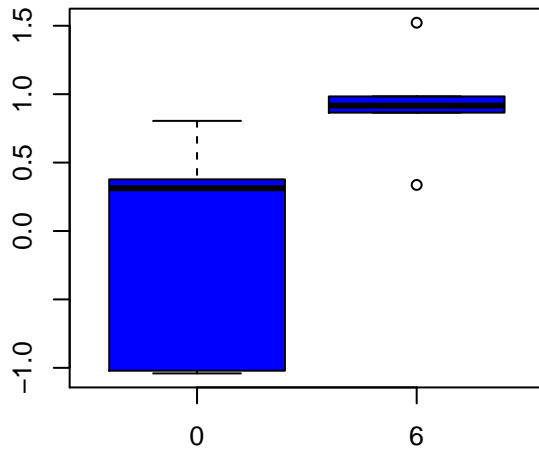


**glycerophosphoethanolamine**



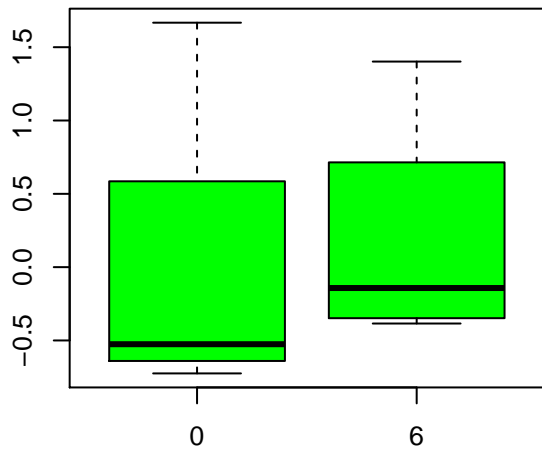
HCT116

**glycerophosphoethanolamine**



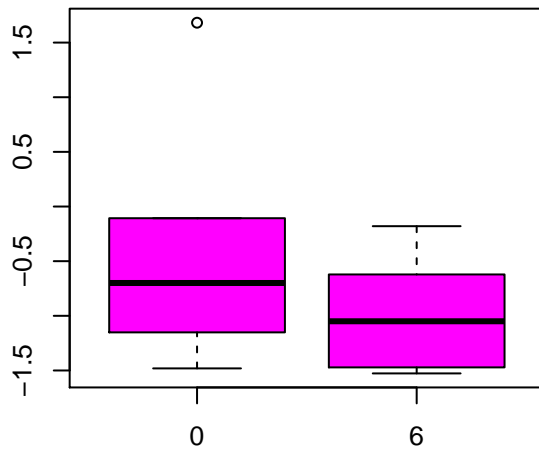
OVCAR

**glycerophosphoethanolamine**



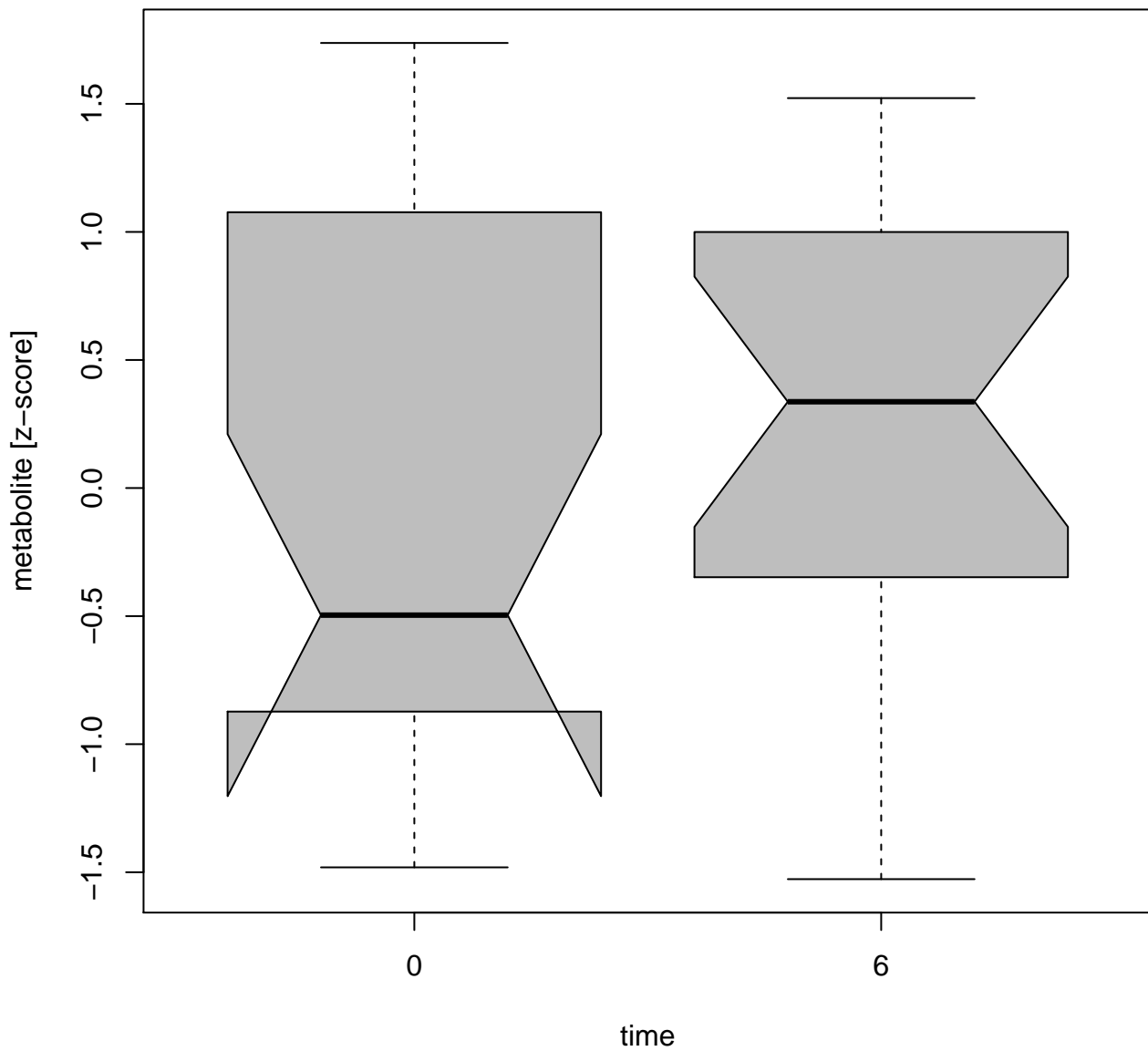
HCT15

**glycerophosphoethanolamine**

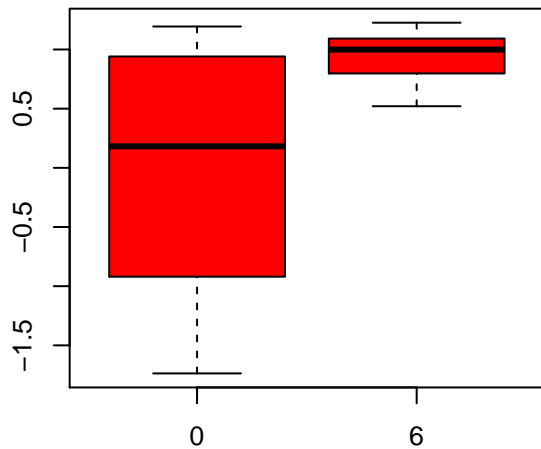


SKOV3

# glycerophosphoethanolamine

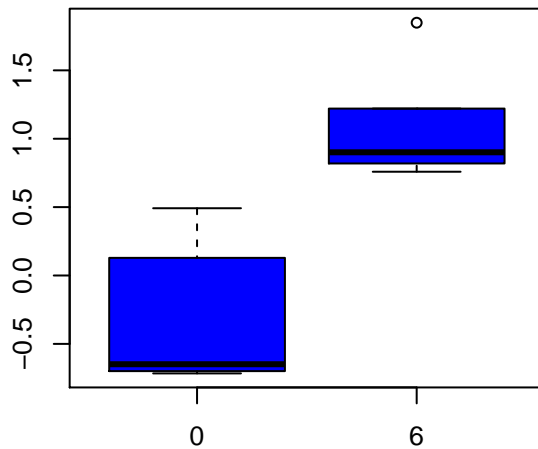


**glycerophosphorylcholine (GPC)**



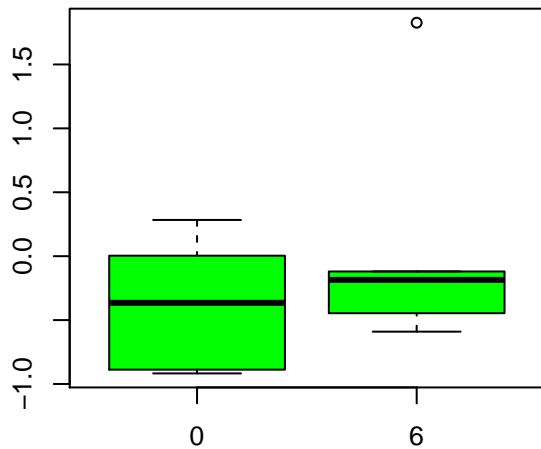
HCT116

**glycerophosphorylcholine (GPC)**



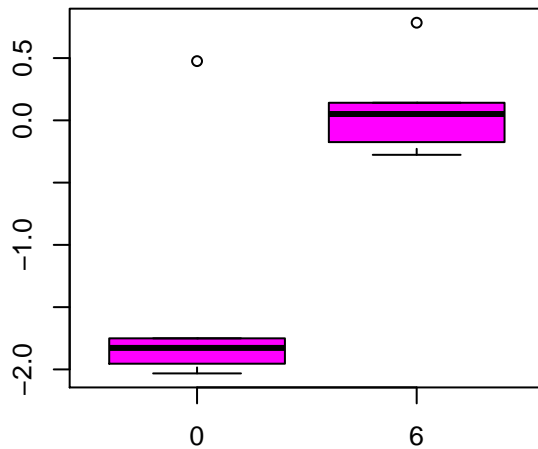
OVCAR

**glycerophosphorylcholine (GPC)**



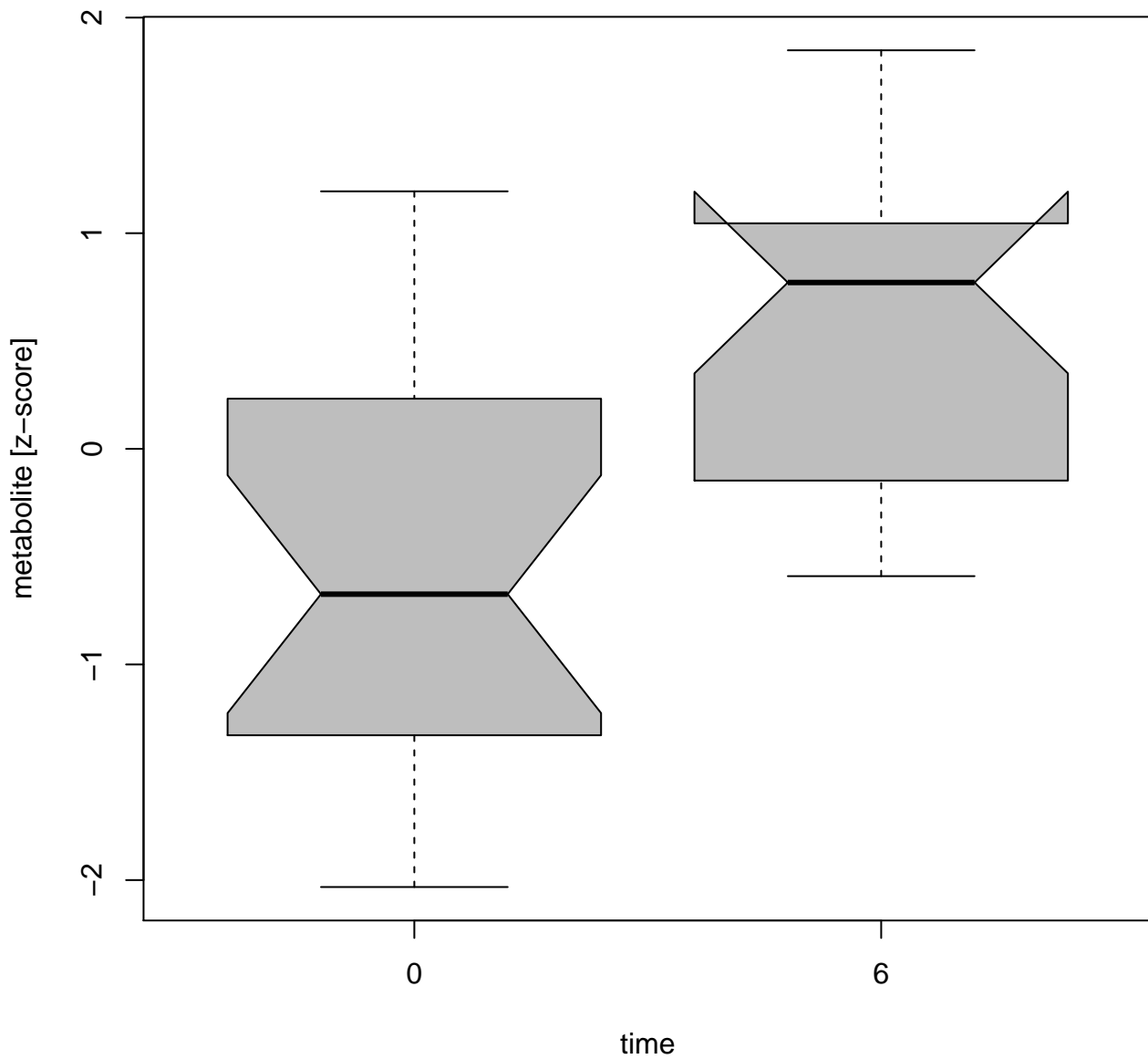
HCT15

**glycerophosphorylcholine (GPC)**

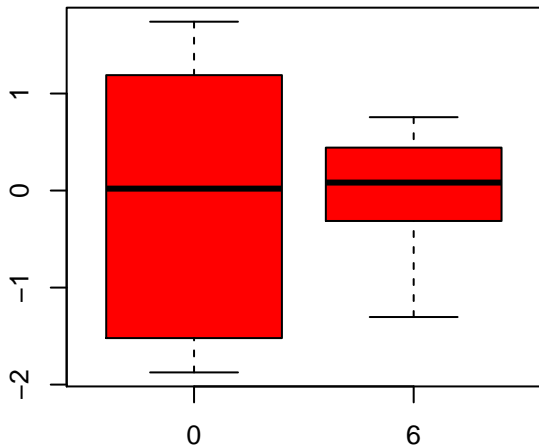


SKOV3

# glycerophosphorylcholine (GPC)

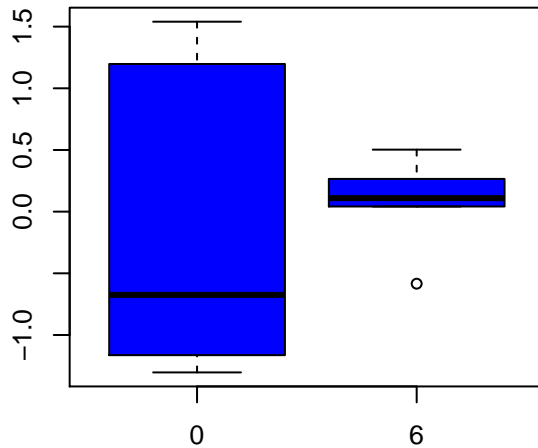


**glycine**



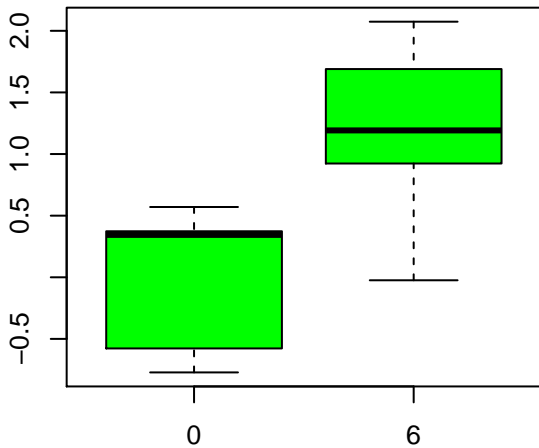
HCT116

**glycine**



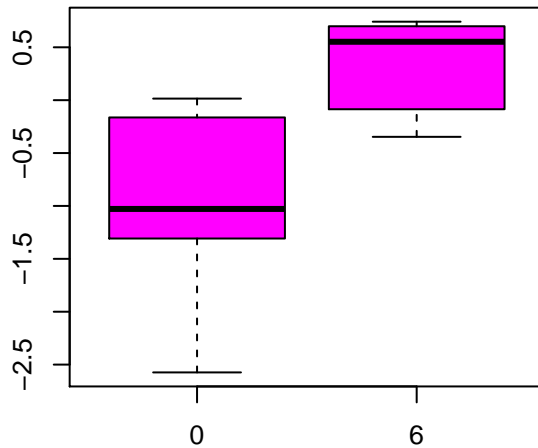
OVCAR

**glycine**



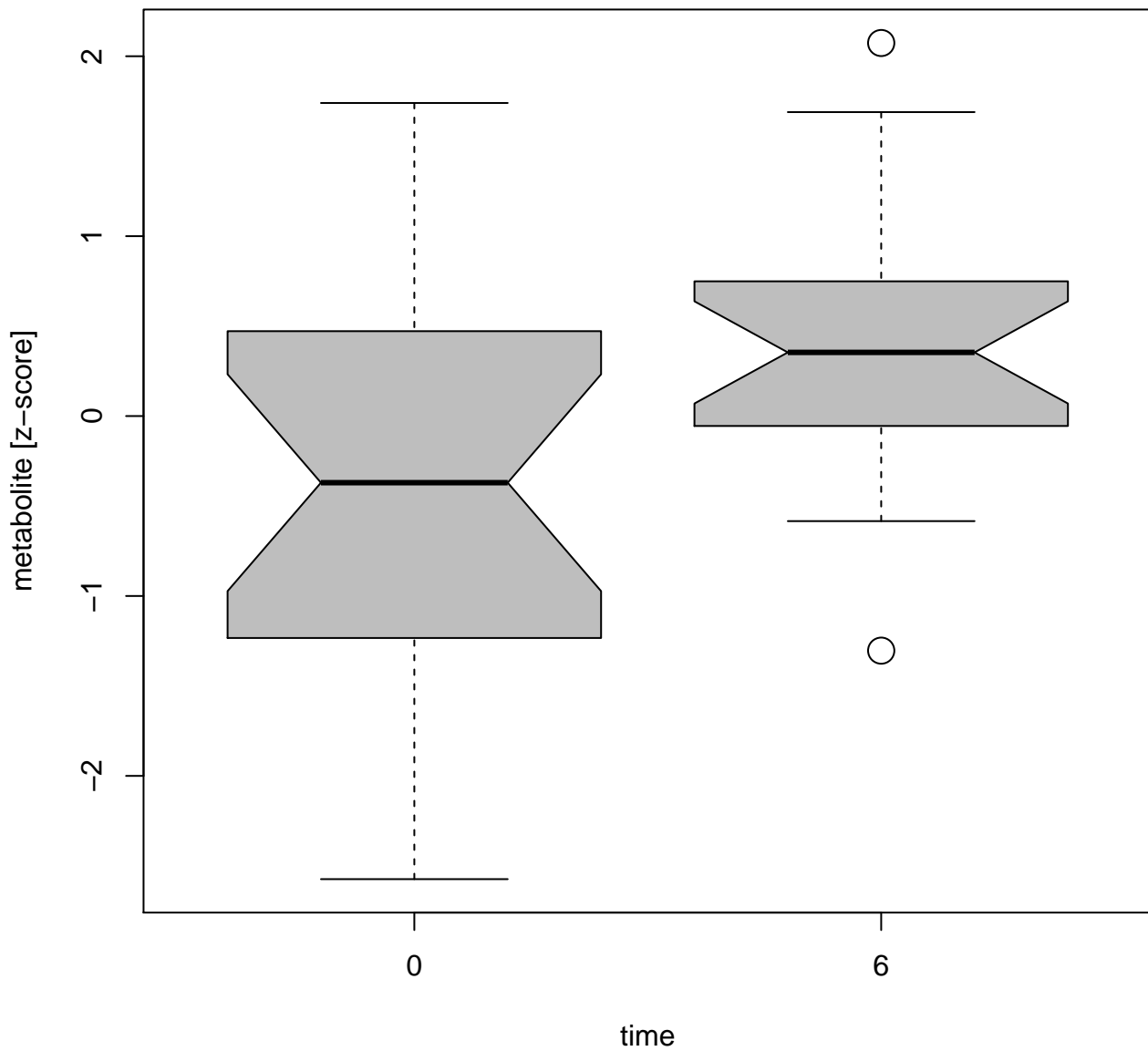
HCT15

**glycine**

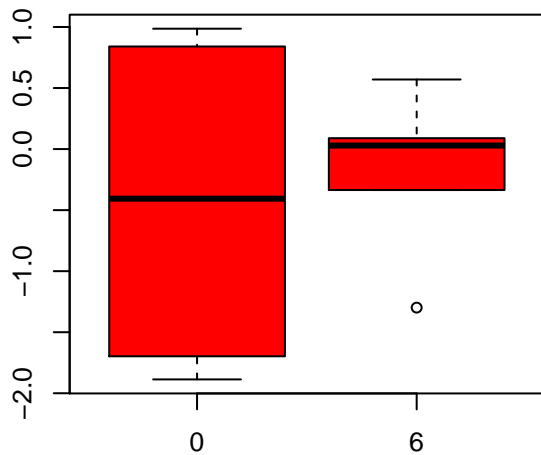


SKOV3

# glycine

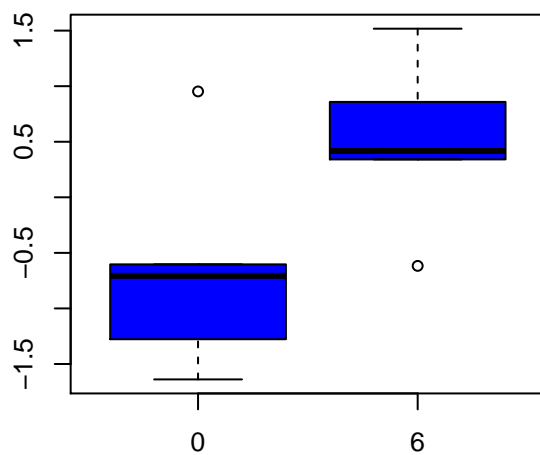


**guanosine 5'- diphosphate (GDP)**



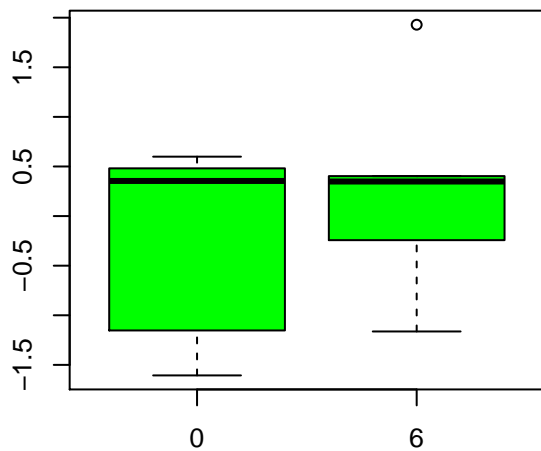
HCT116

**guanosine 5'- diphosphate (GDP)**



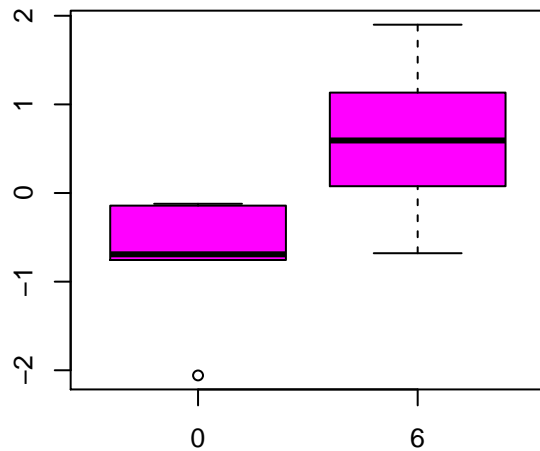
OVCAR

**guanosine 5'- diphosphate (GDP)**



HCT15

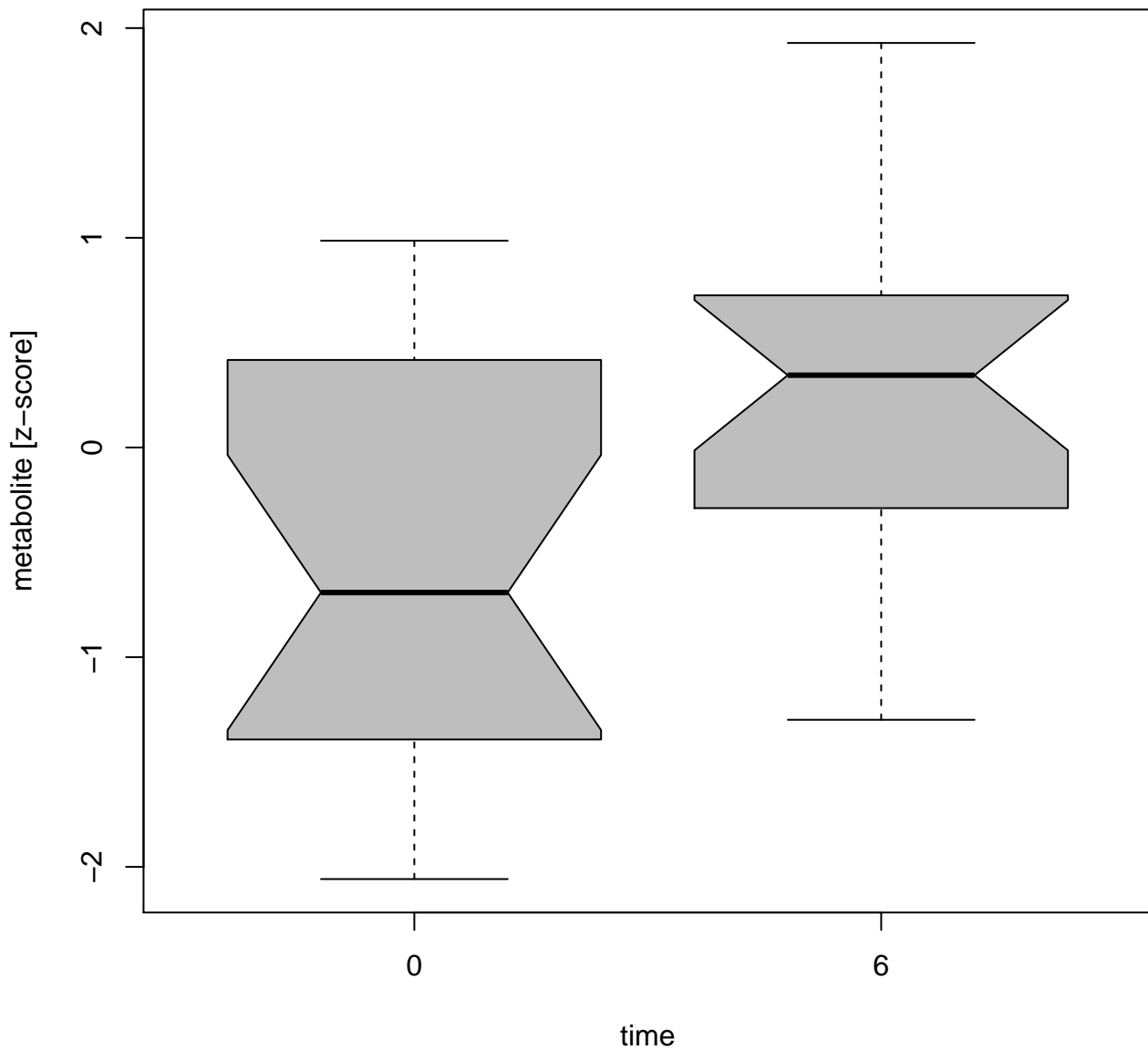
**guanosine 5'- diphosphate (GDP)**



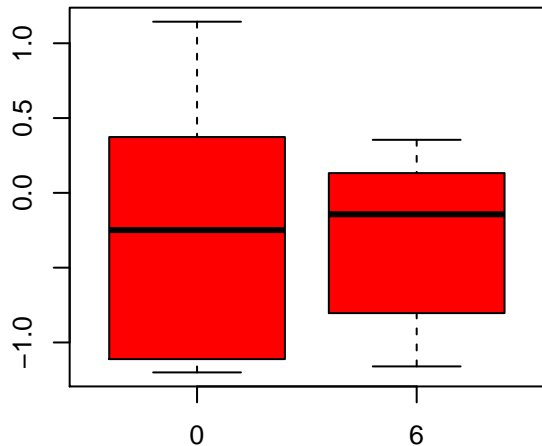
SKOV3



# guanosine 5'- diphosphate (GDP)

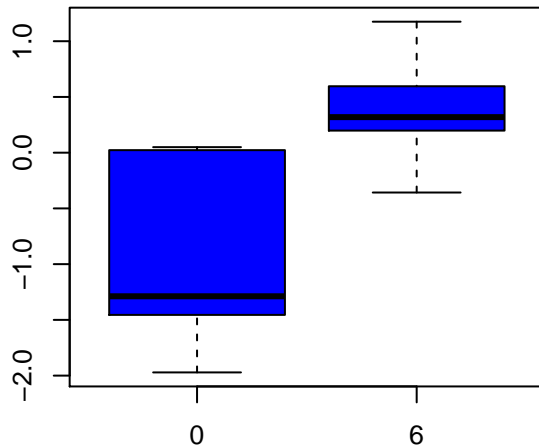


guanosine 5'- monophosphate (5'-GMP)



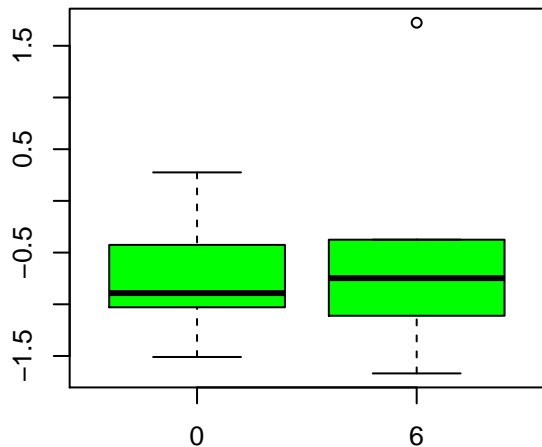
HCT116

guanosine 5'- monophosphate (5'-GMP)



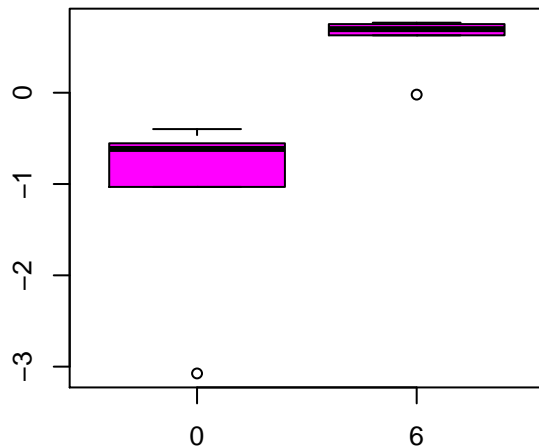
OVCAR

guanosine 5'- monophosphate (5'-GMP)



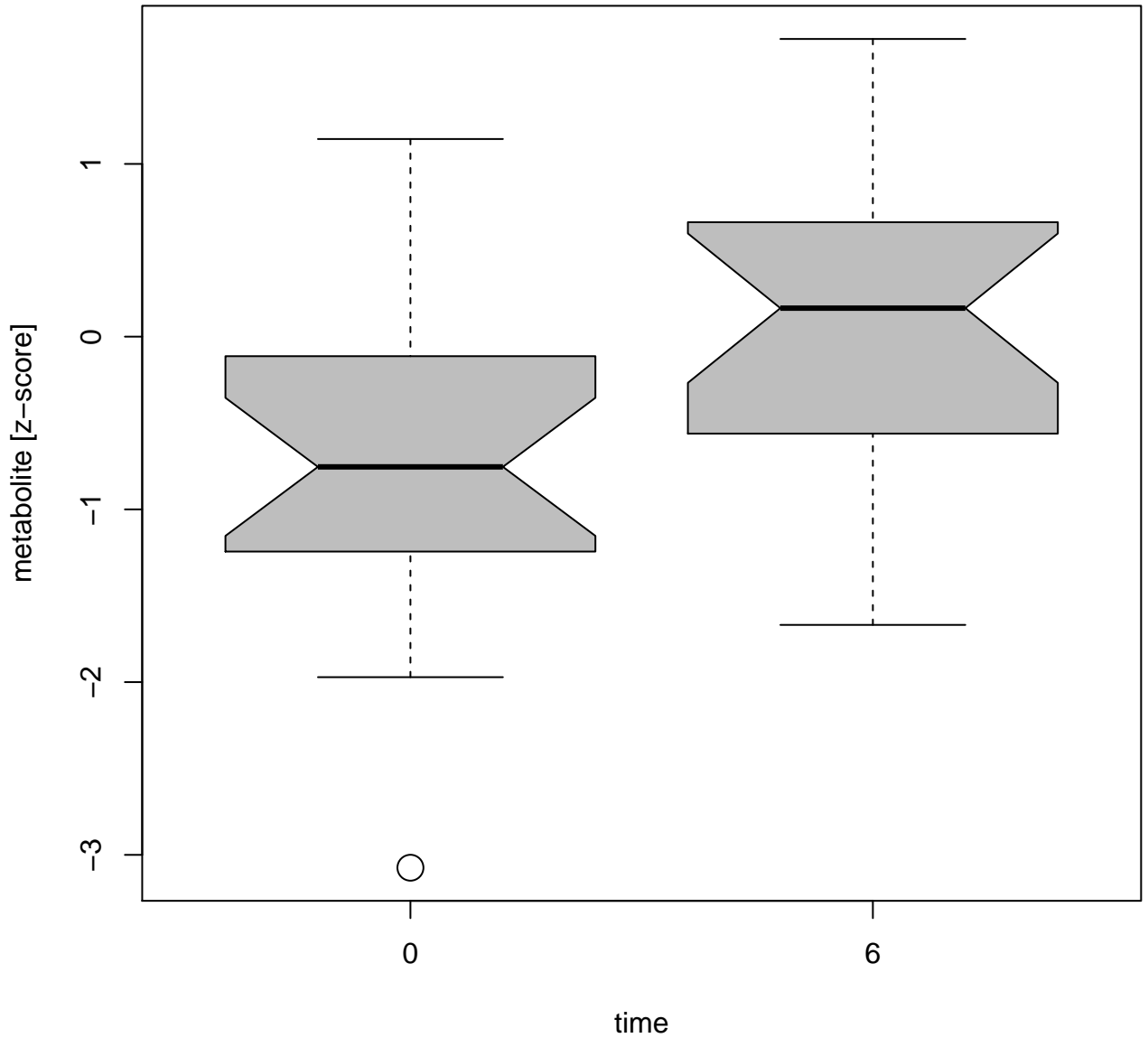
HCT15

guanosine 5'- monophosphate (5'-GMP)

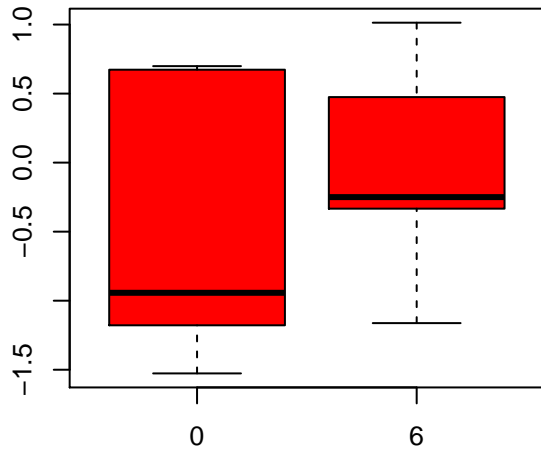


SKOV3

# guanosine 5'- monophosphate (5'-GMP)

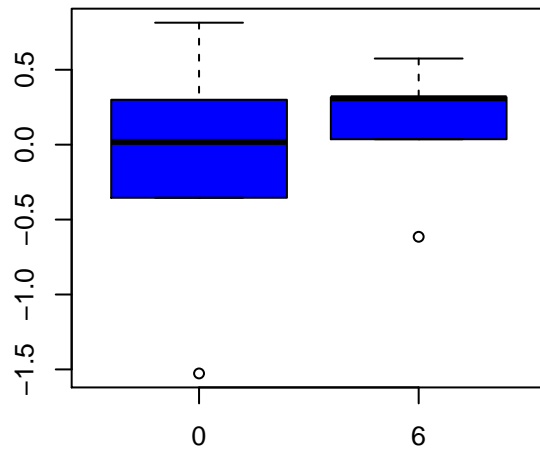


histidine



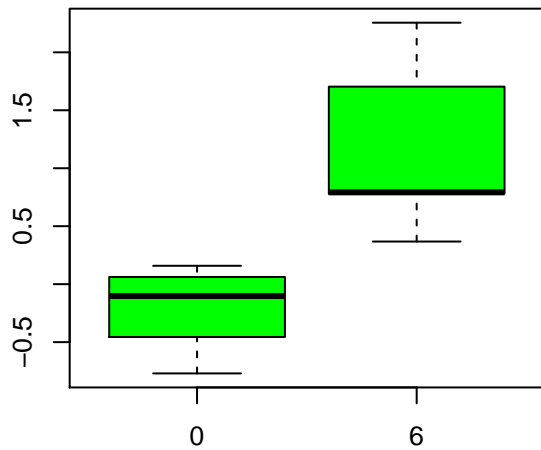
HCT116

histidine



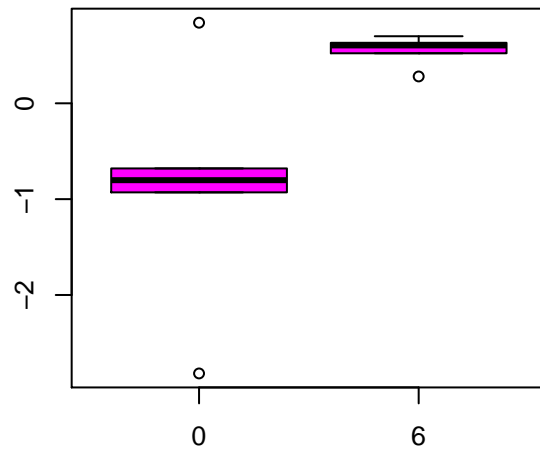
OVCAR

histidine



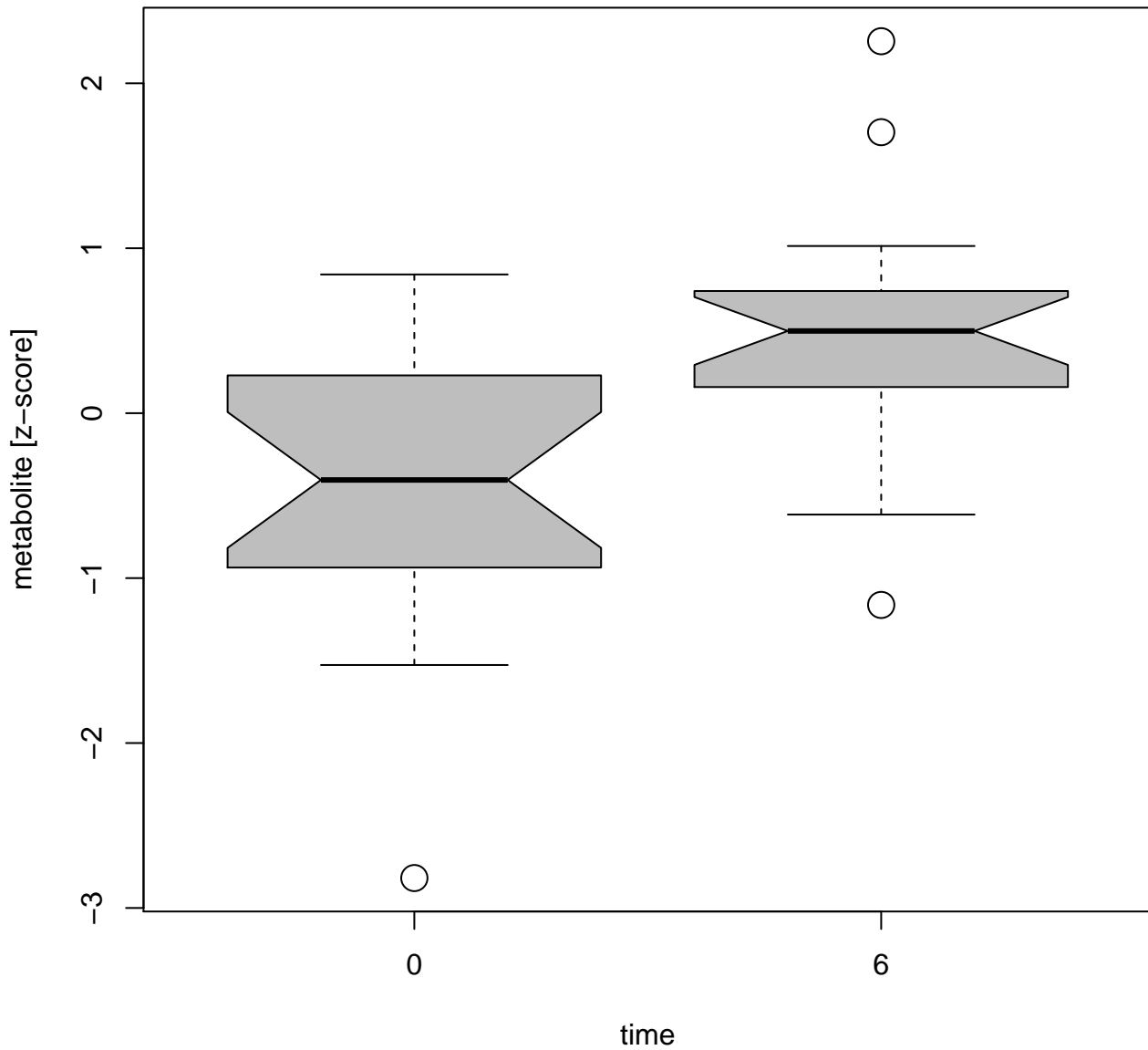
HCT15

histidine

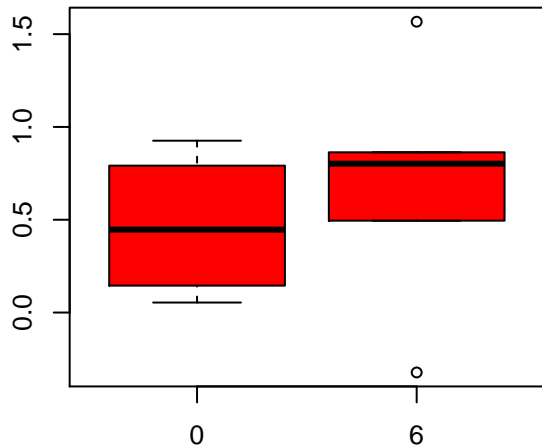


SKOV3

# histidine

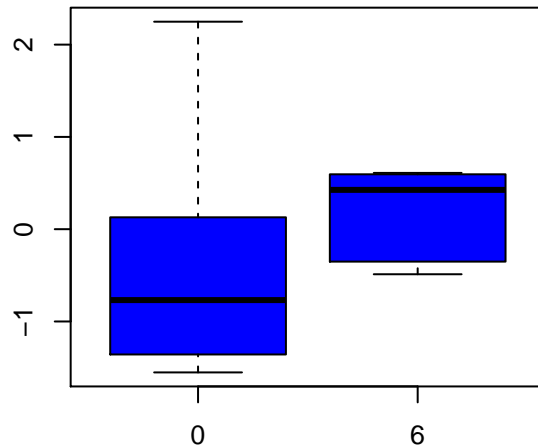


**hypoxanthine**



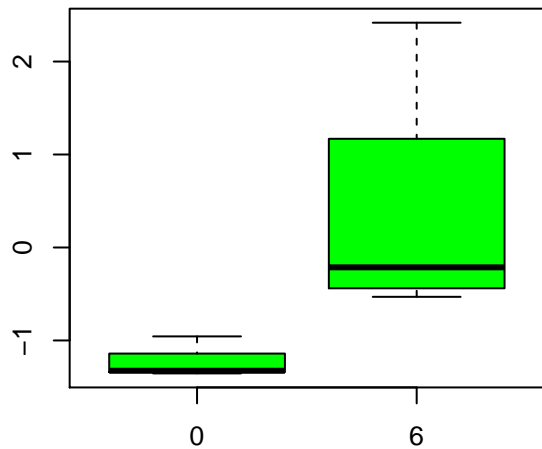
HCT116

**hypoxanthine**



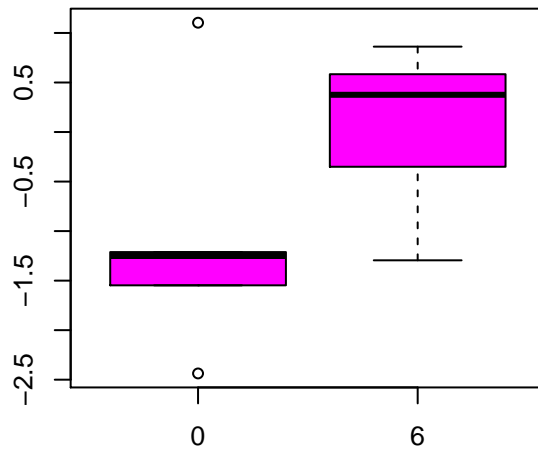
OVCAR

**hypoxanthine**



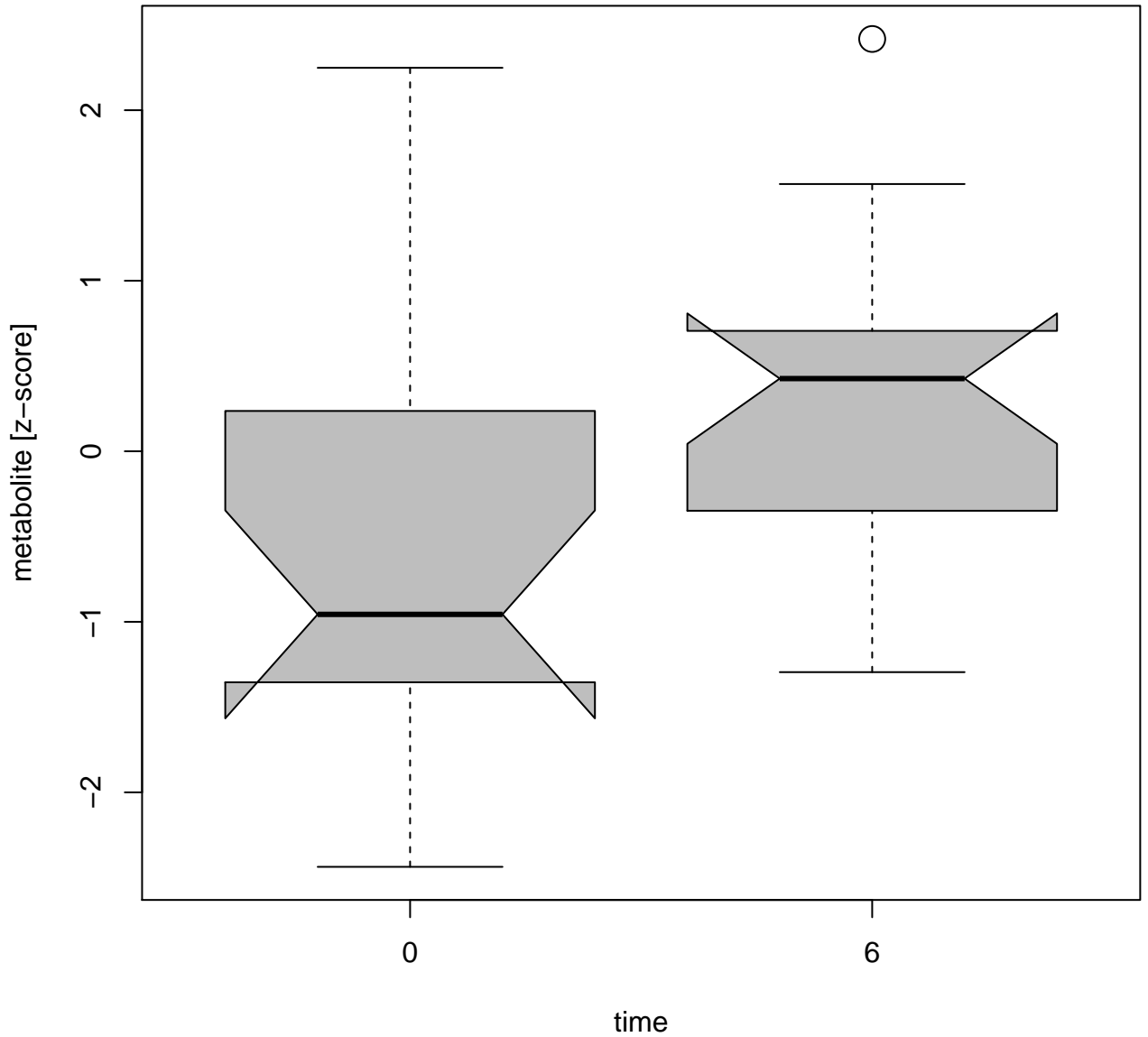
HCT15

**hypoxanthine**

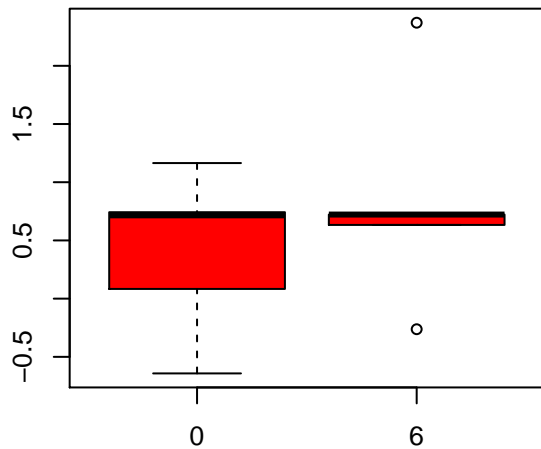


SKOV3

# hypoxanthine

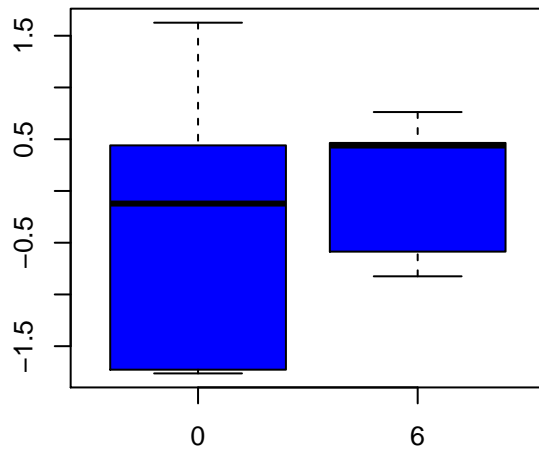


**inosine**



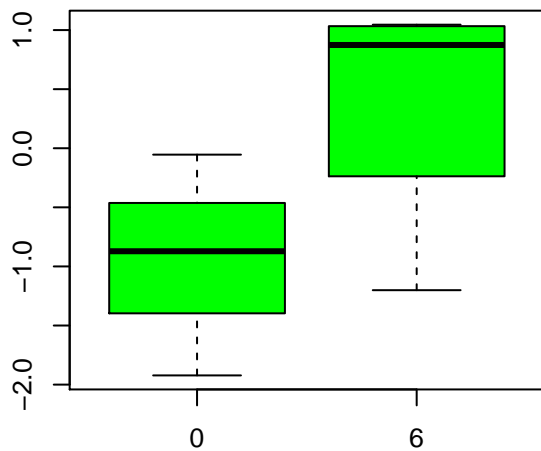
HCT116

**inosine**



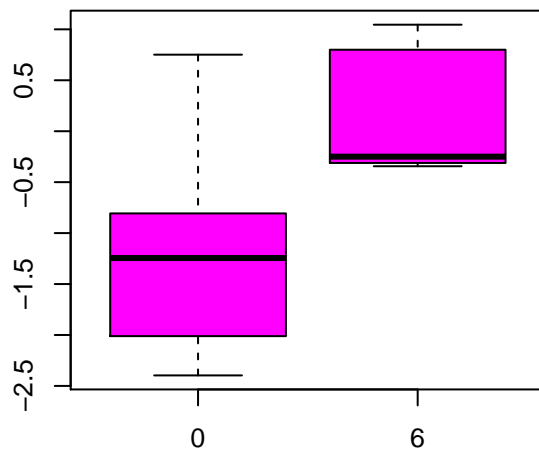
OVCAR

**inosine**



HCT15

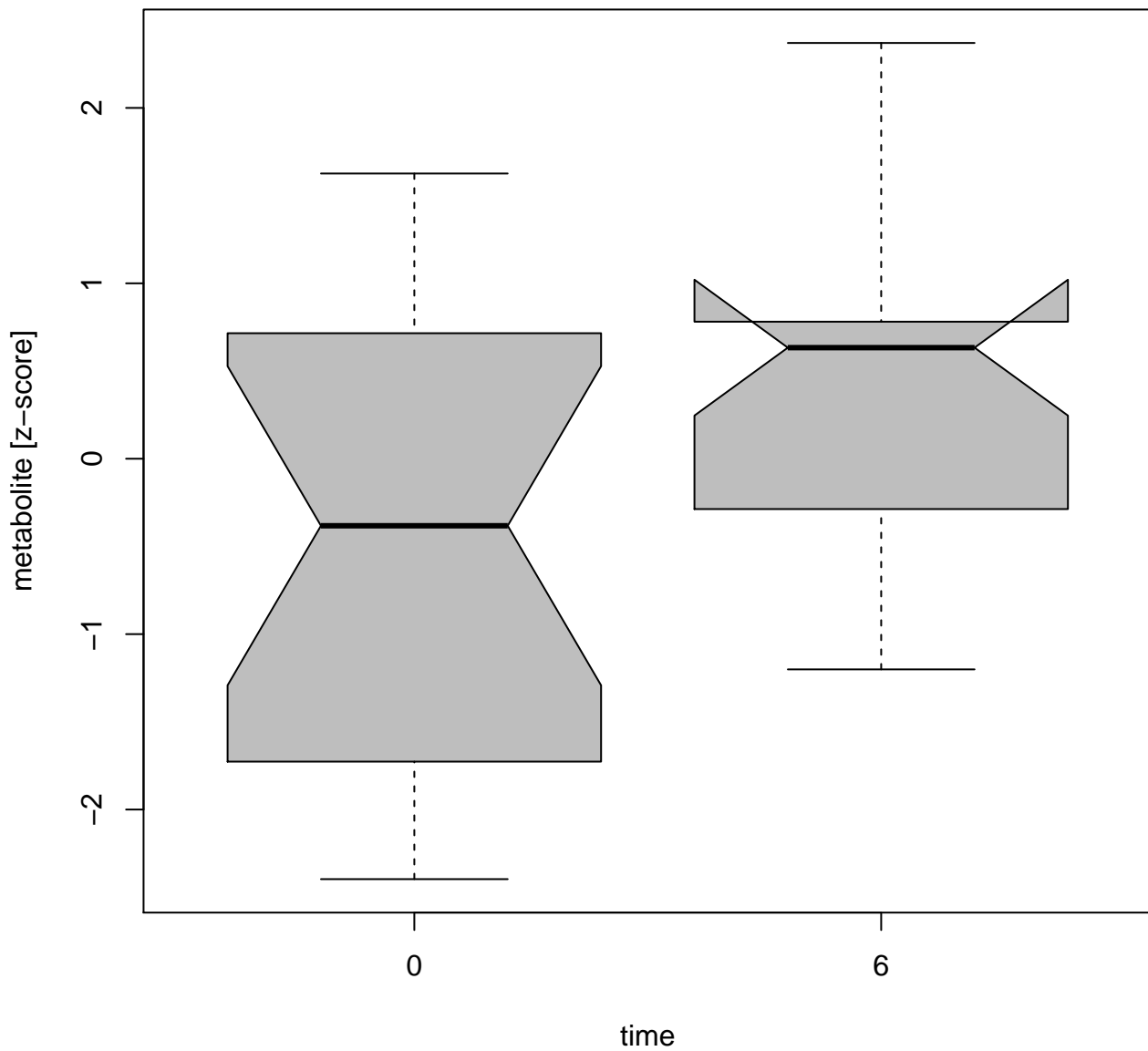
**inosine**



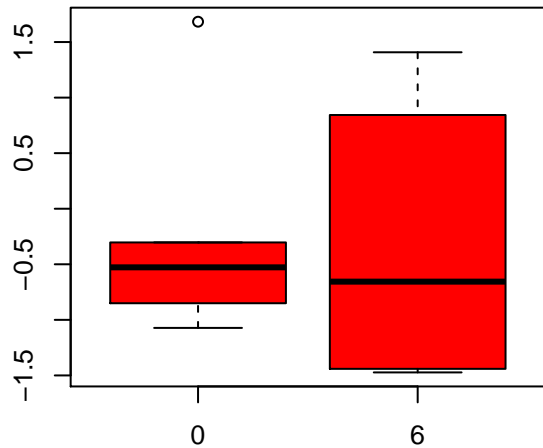
SKOV3



# inosine

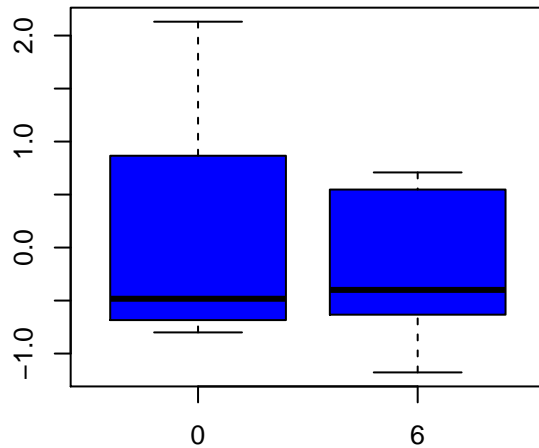


**inosine 5'-monophosphate (IMP)**



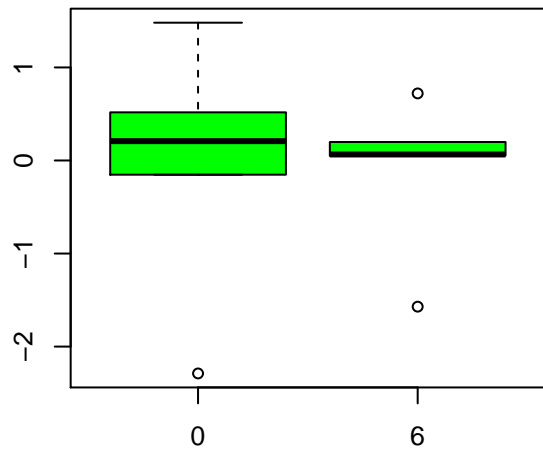
HCT116

**inosine 5'-monophosphate (IMP)**



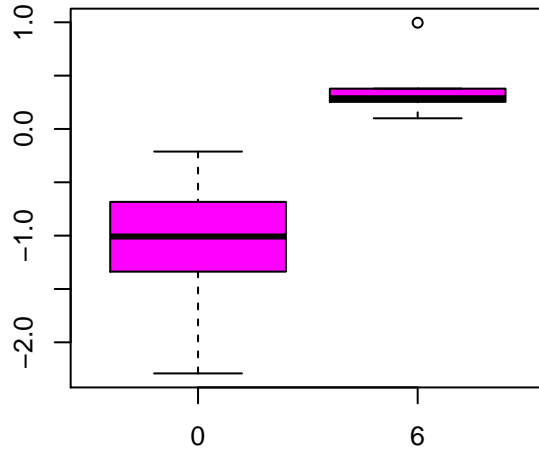
OVCAR

**inosine 5'-monophosphate (IMP)**



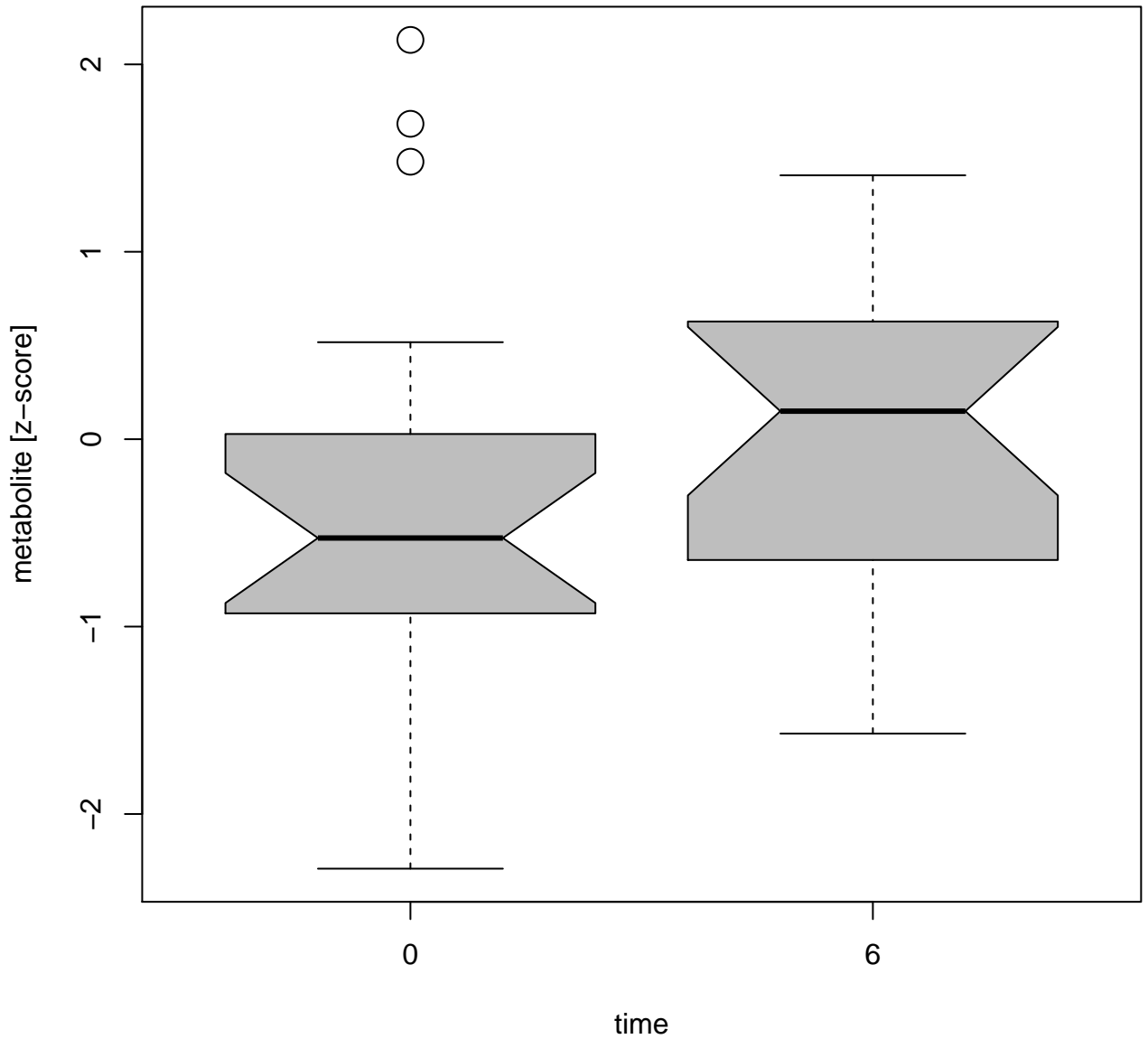
HCT15

**inosine 5'-monophosphate (IMP)**

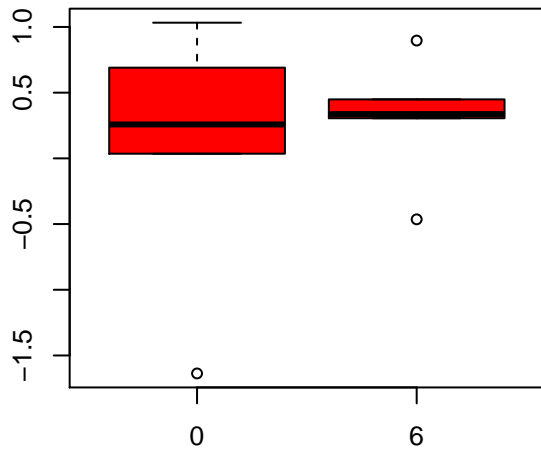


SKOV3

# inosine 5'-monophosphate (IMP)

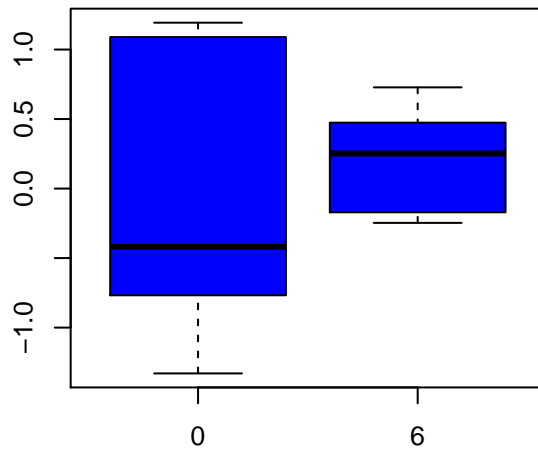


**inositol 1-phosphate (I1P)**



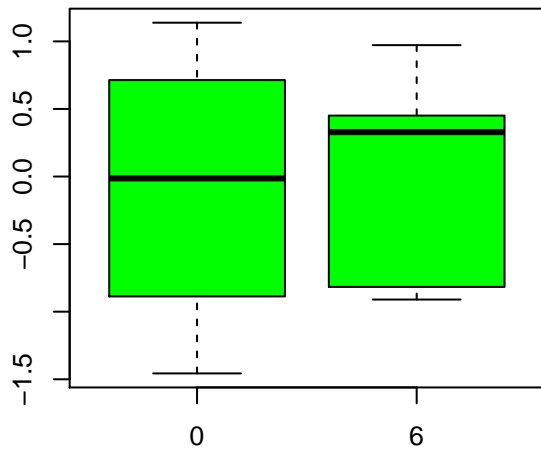
HCT116

**inositol 1-phosphate (I1P)**



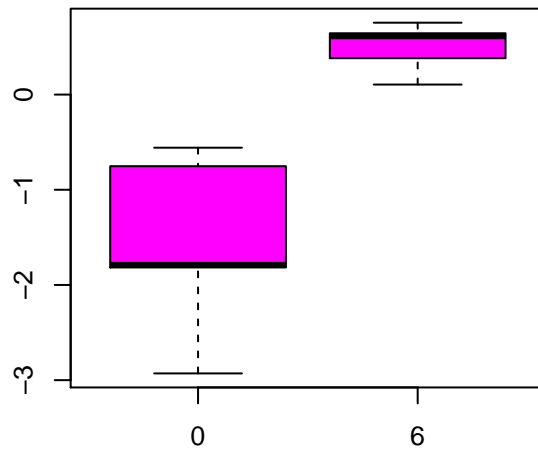
OVCAR

**inositol 1-phosphate (I1P)**



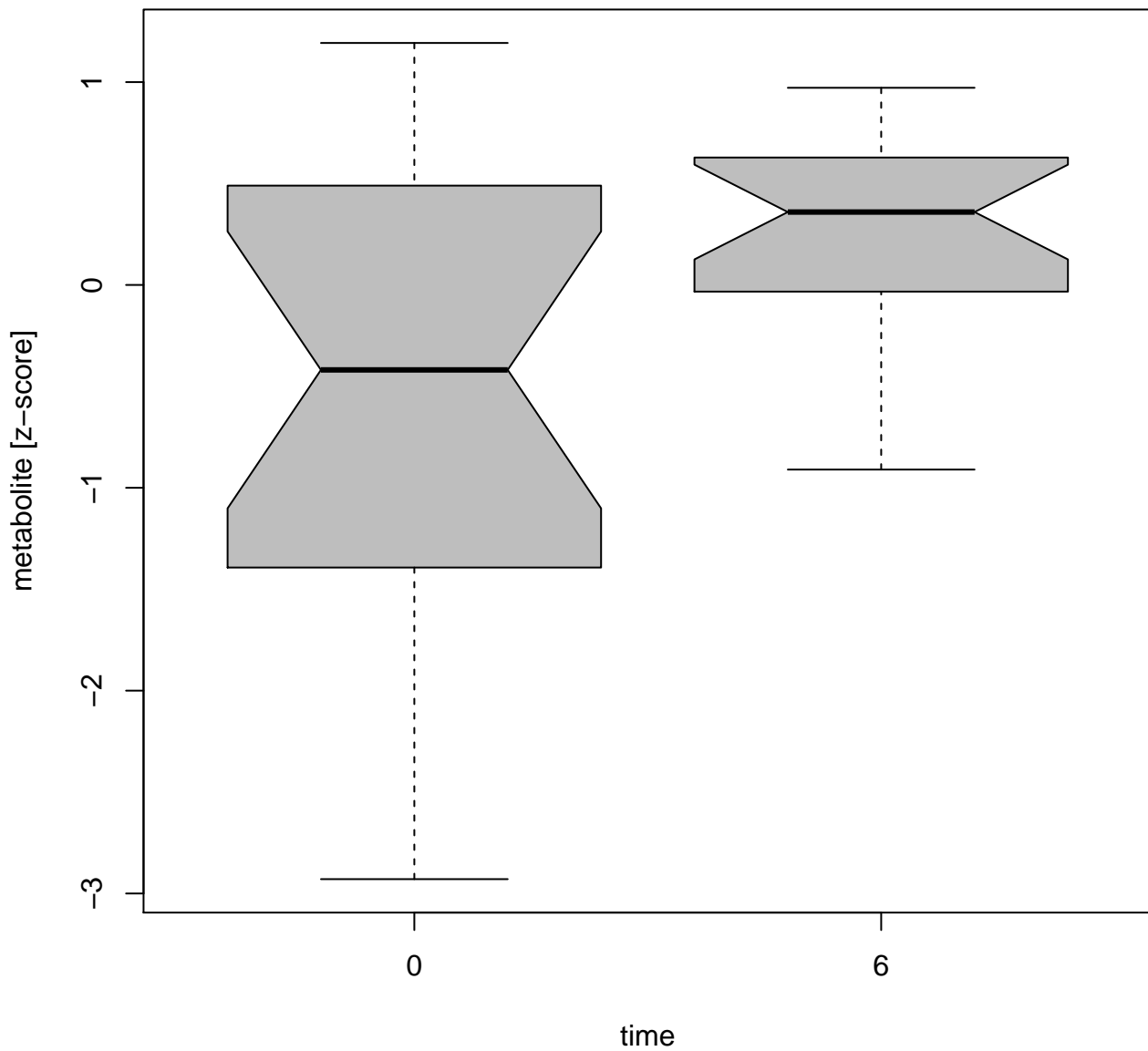
HCT15

**inositol 1-phosphate (I1P)**

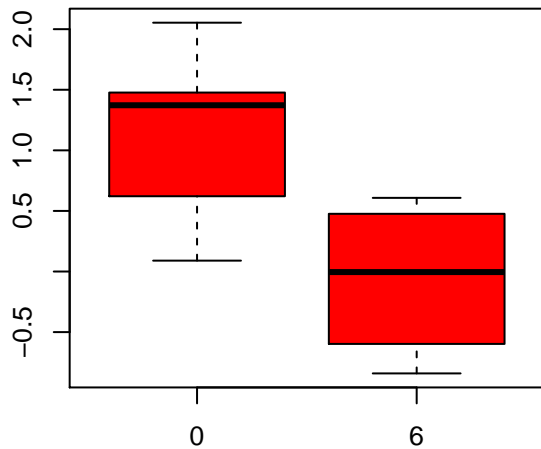


SKOV3

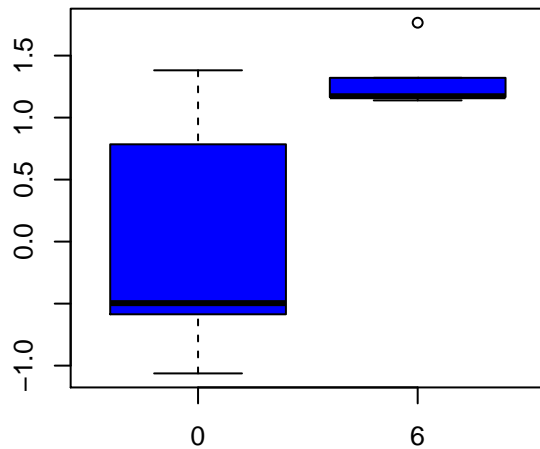
# inositol 1-phosphate (I1P)



r: UDP-acetylglucosamine, UDP-acetylglar: UDP-acetylglucosamine, UDP-acetylglar

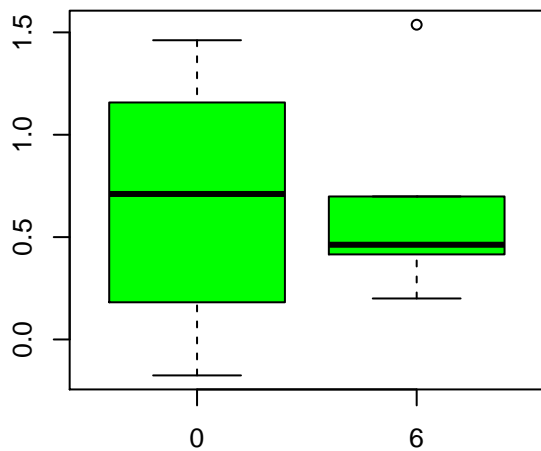


HCT116

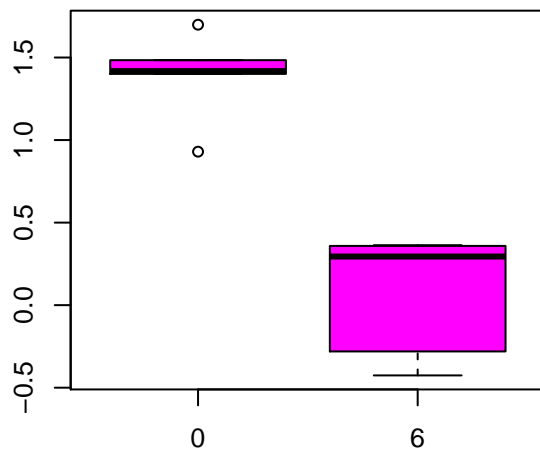


OVCAR

r: UDP-acetylglucosamine, UDP-acetylglar: UDP-acetylglucosamine, UDP-acetylglar

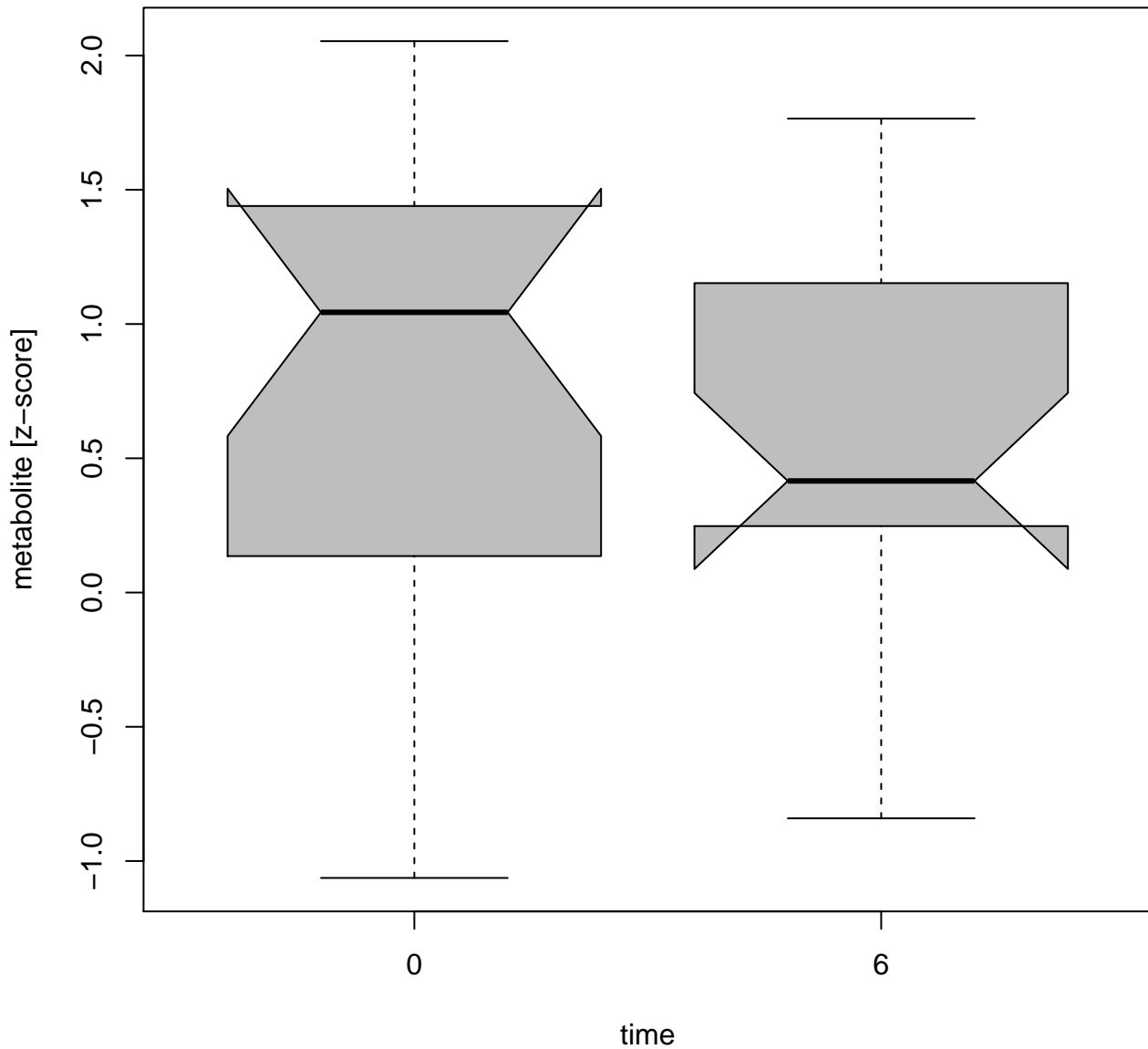


HCT15

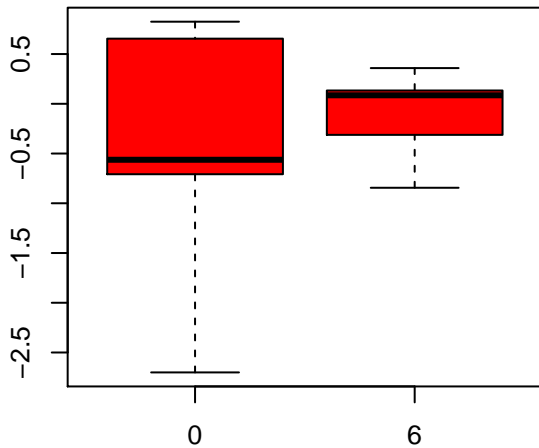


SKOV3

# Isobar: UDP-acetylglucosamine, UDP-acetylgalactosamine

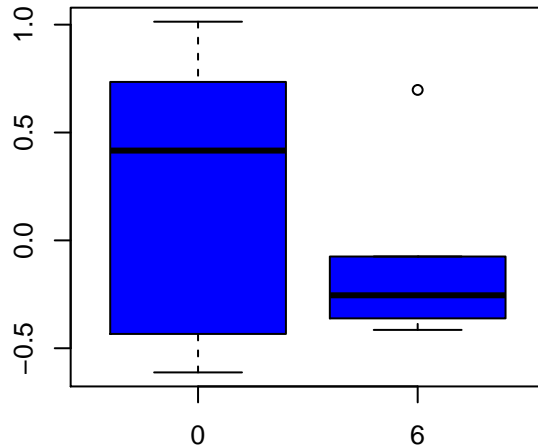


**isoleucine**



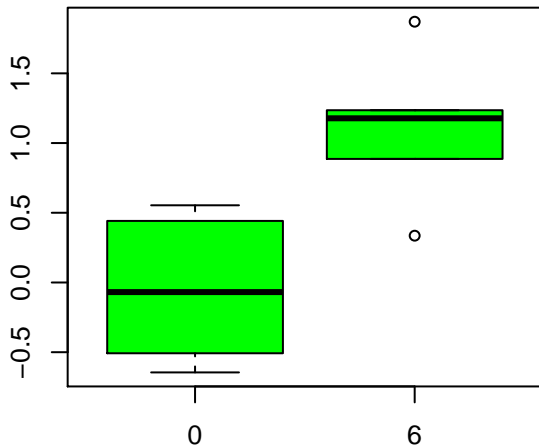
HCT116

**isoleucine**



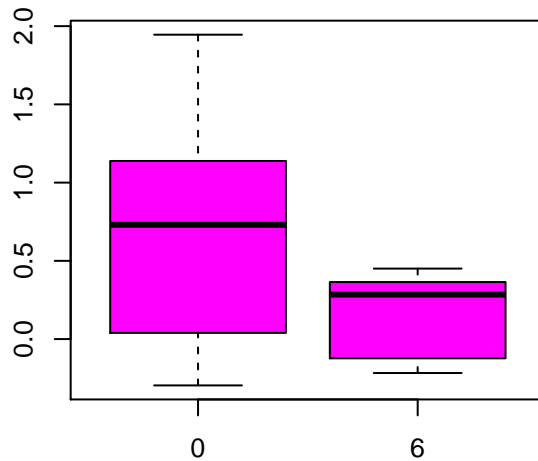
OVCAR

**isoleucine**



HCT15

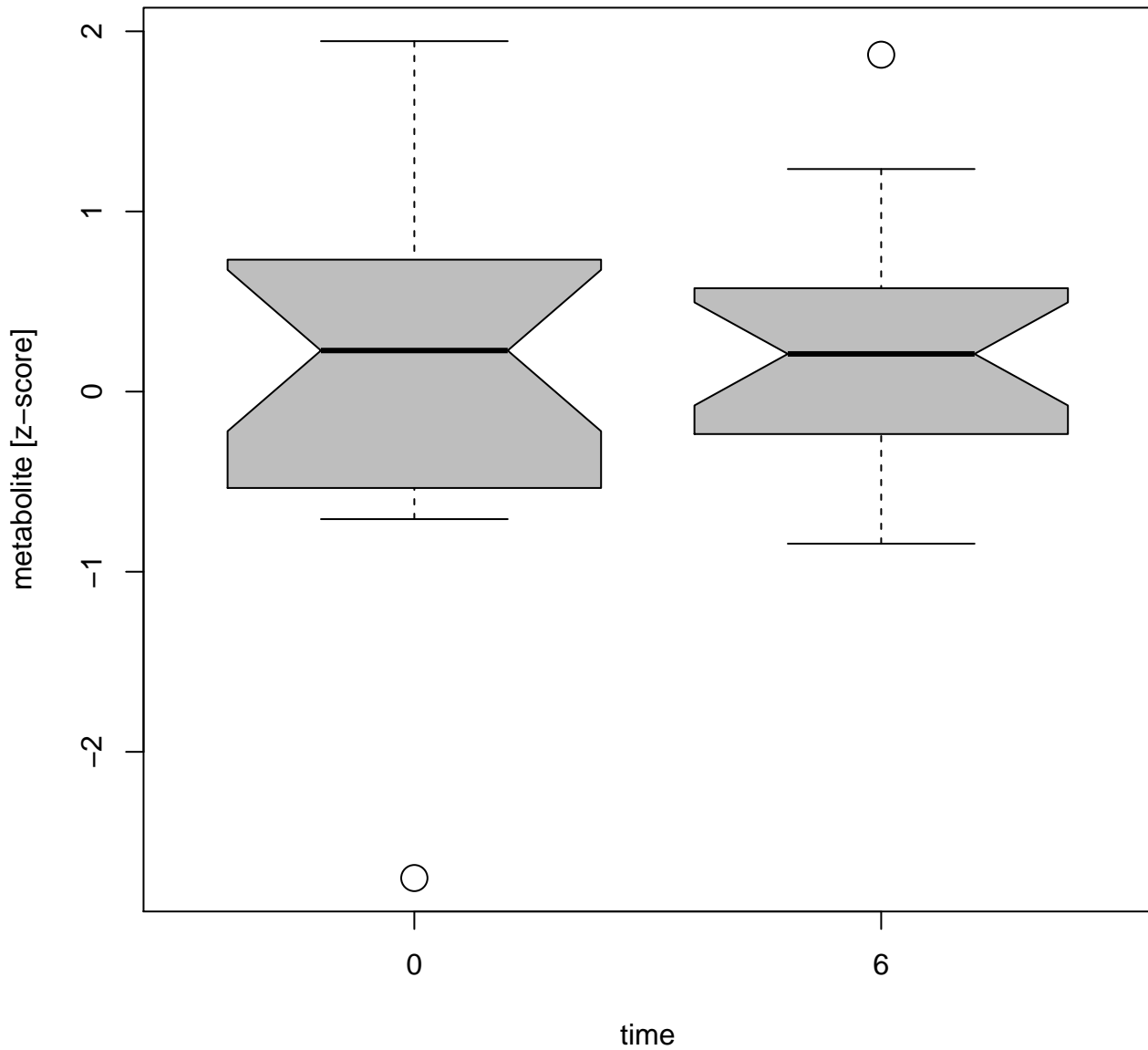
**isoleucine**



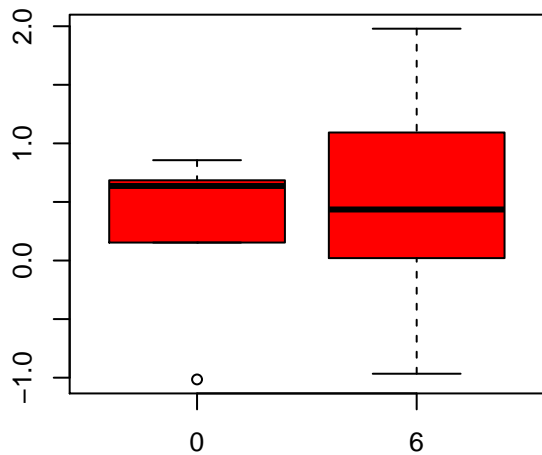
SKOV3



# isoleucine

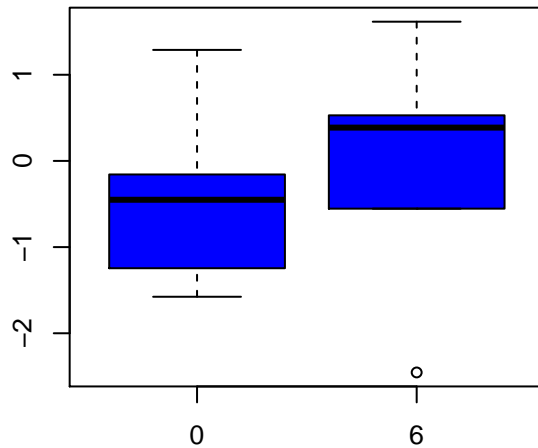


**isoleucylalanine**



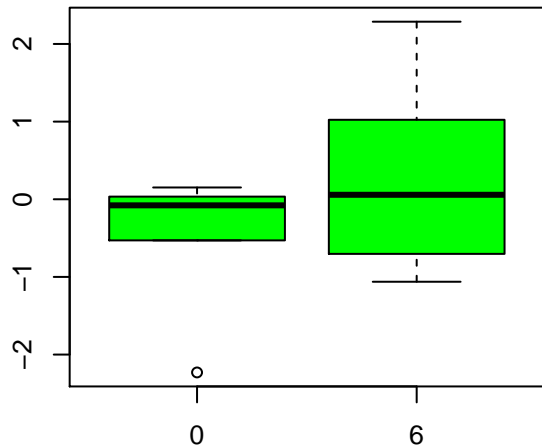
HCT116

**isoleucylalanine**



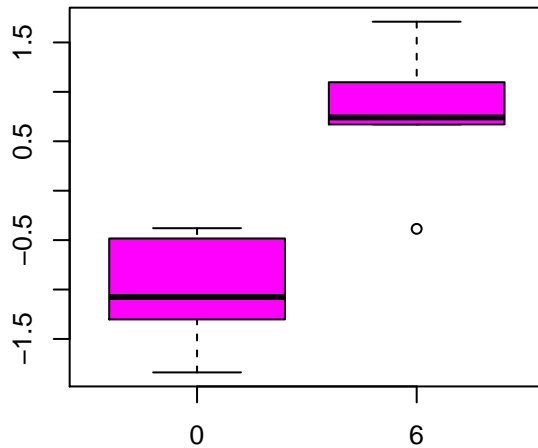
OVCAR

**isoleucylalanine**



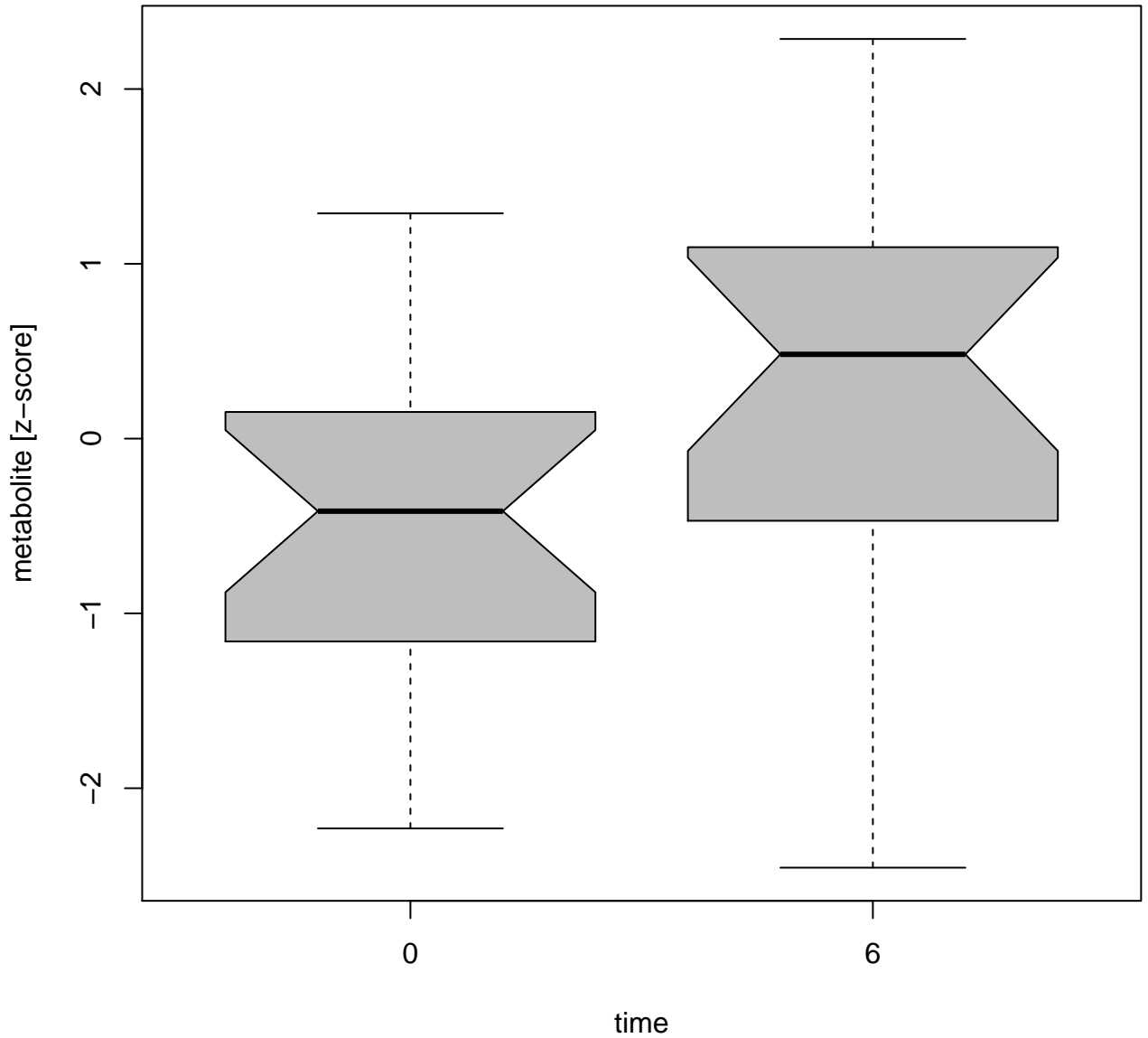
HCT15

**isoleucylalanine**

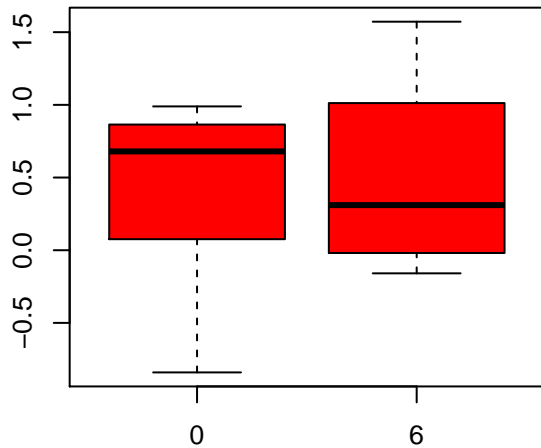


SKOV3

# isoleucylalanine

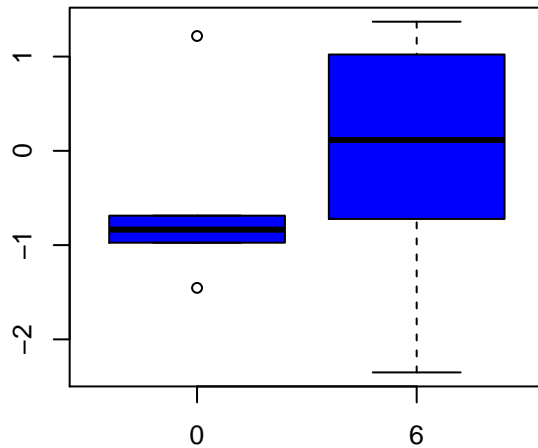


**isoleucylserine**



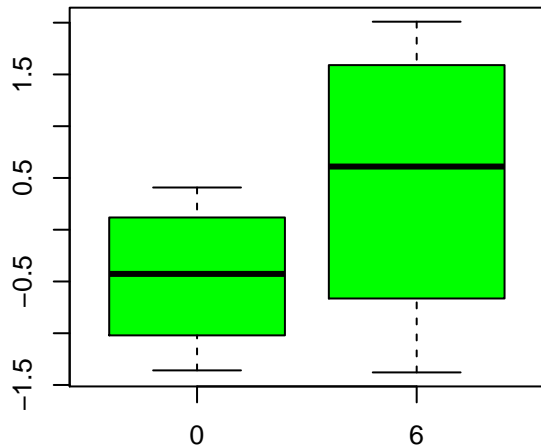
HCT116

**isoleucylserine**



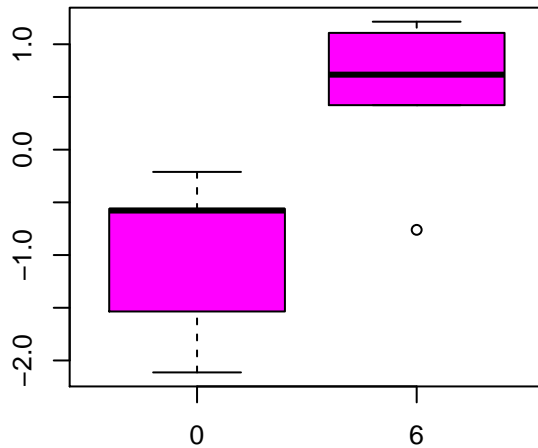
OVCAR

**isoleucylserine**



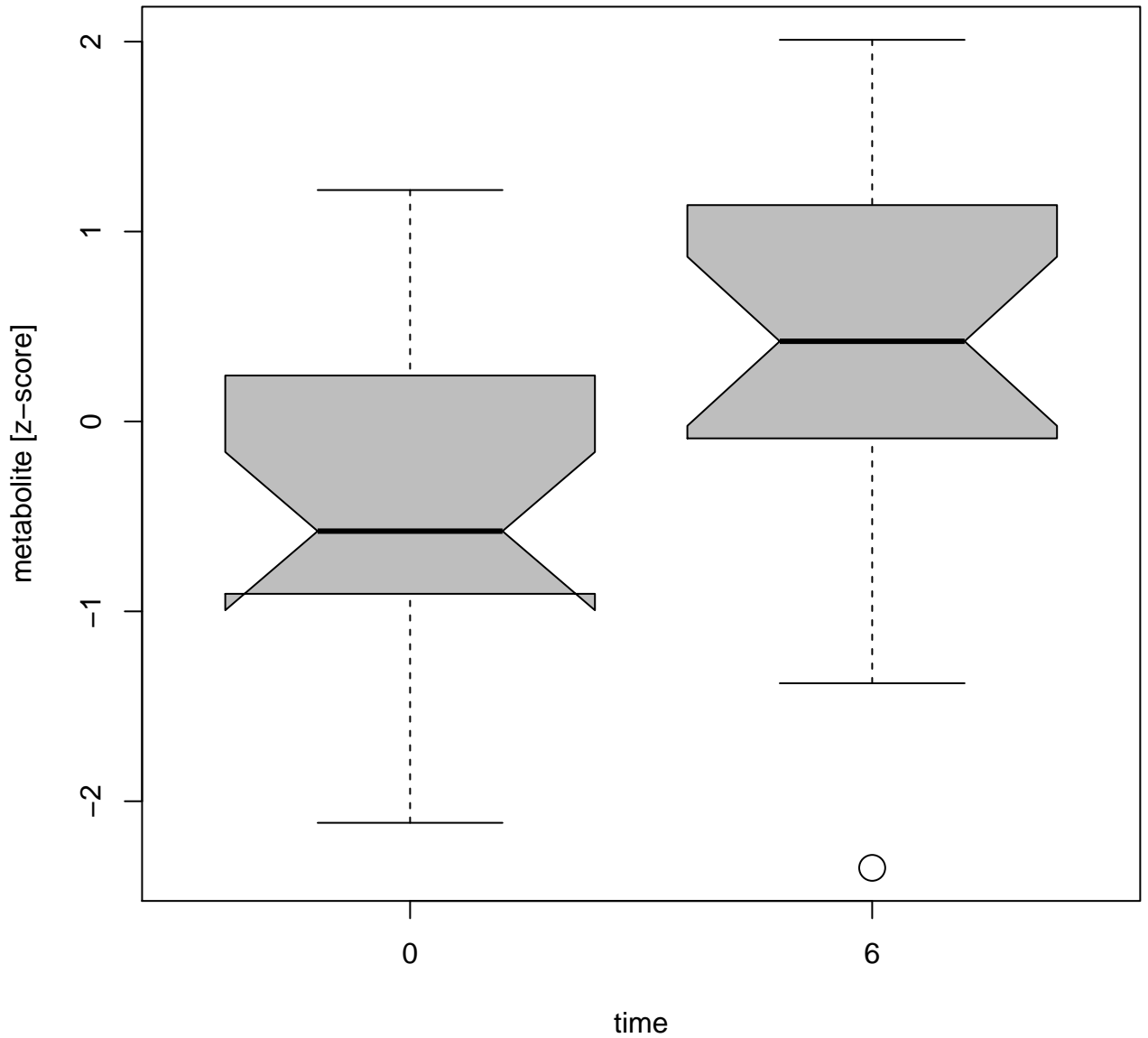
HCT15

**isoleucylserine**

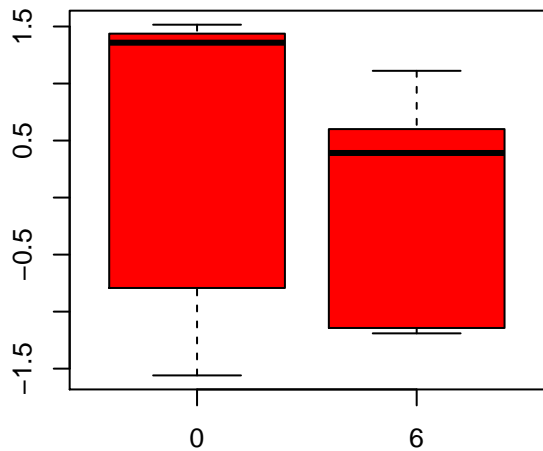


SKOV3

# isoleucylserine

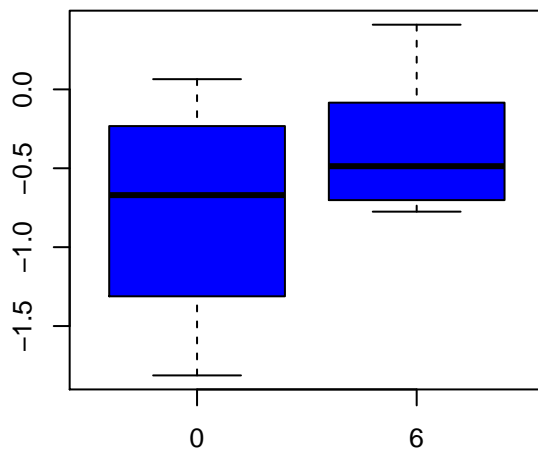


**isovalerylcarnitine**



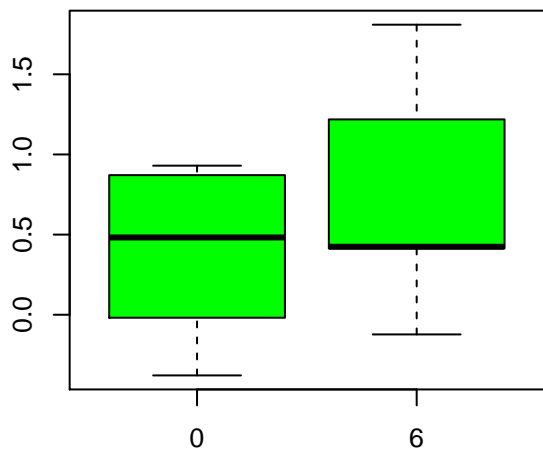
HCT116

**isovalerylcarnitine**



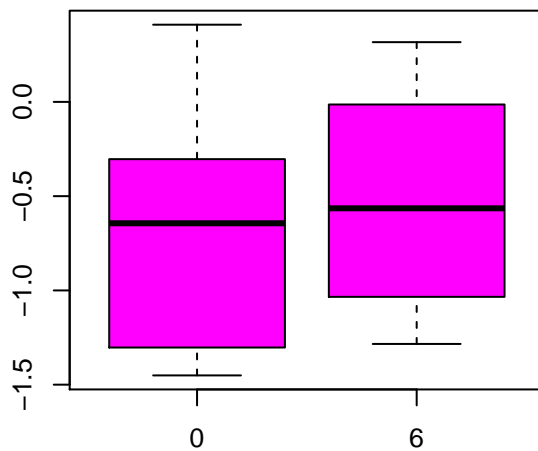
OVCAR

**isovalerylcarnitine**



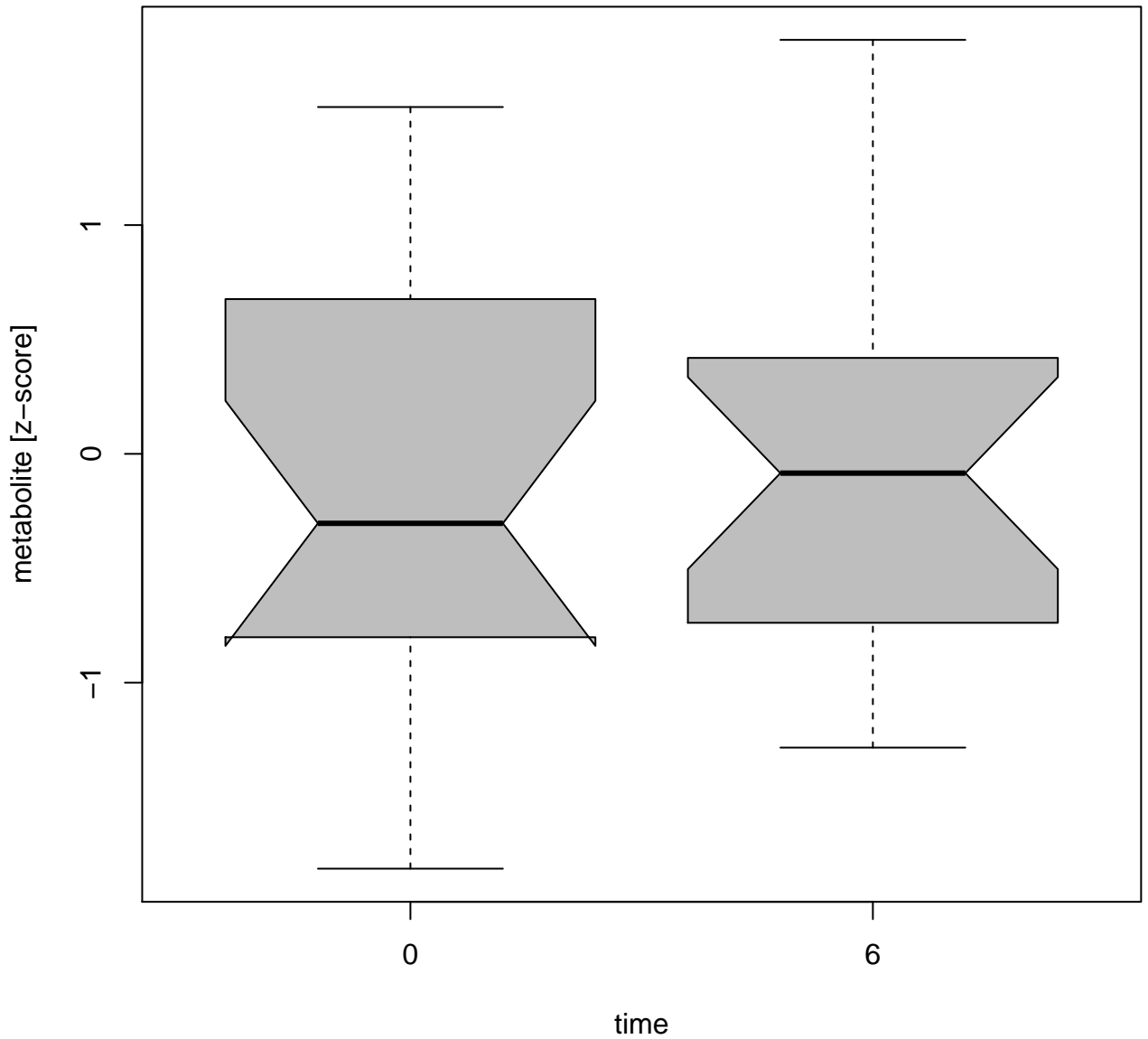
HCT15

**isovalerylcarnitine**

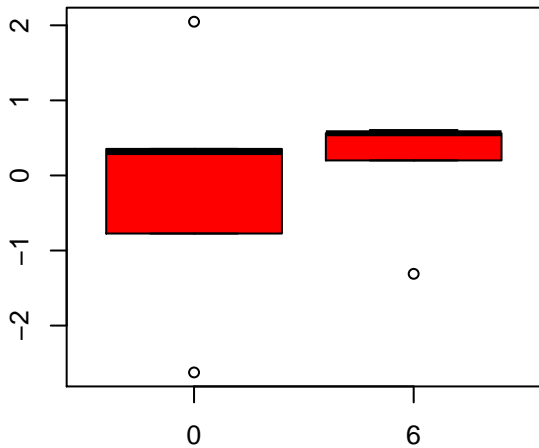


SKOV3

# isovalerylcarnitine

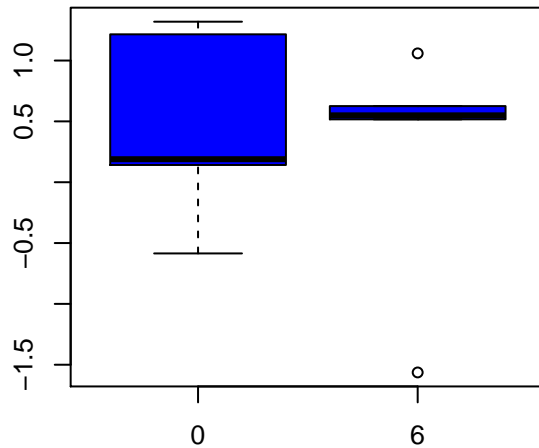


**lactate**



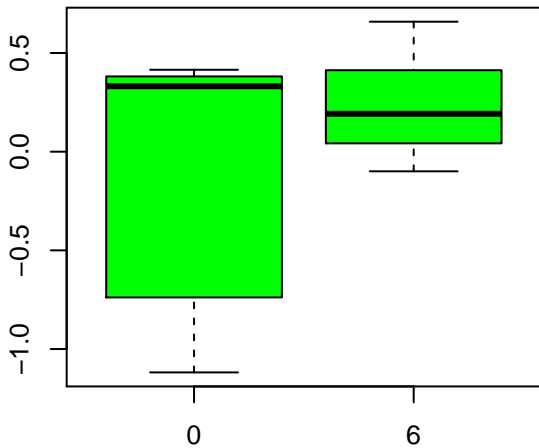
HCT116

**lactate**



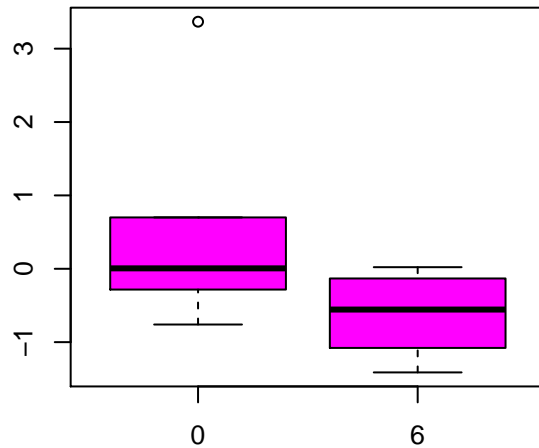
OVCAR

**lactate**



HCT15

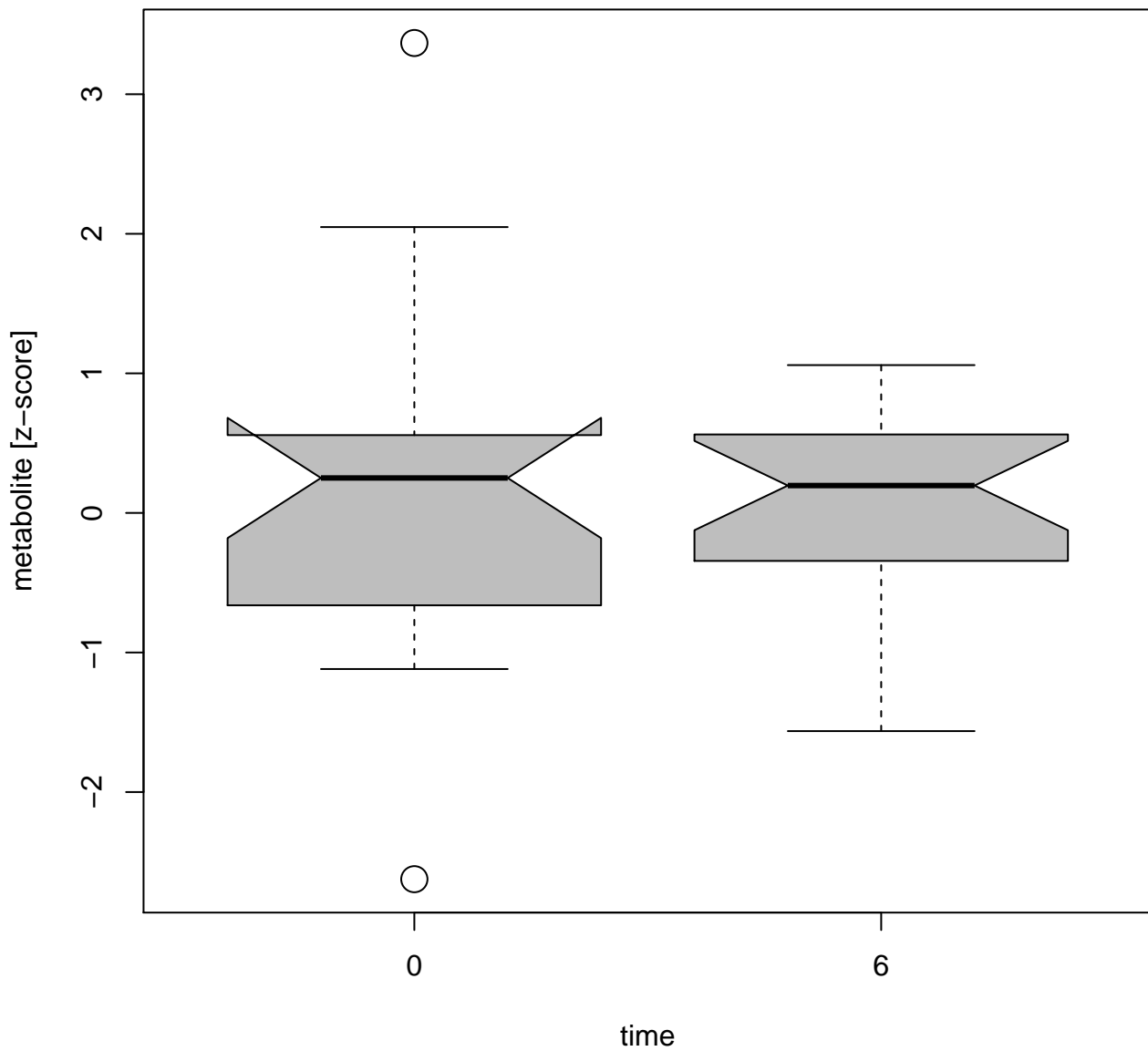
**lactate**



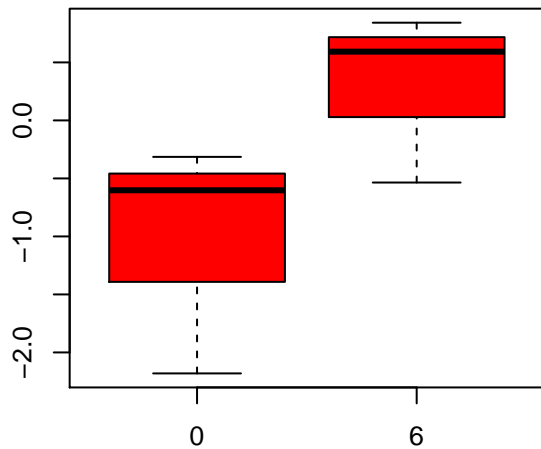
SKOV3



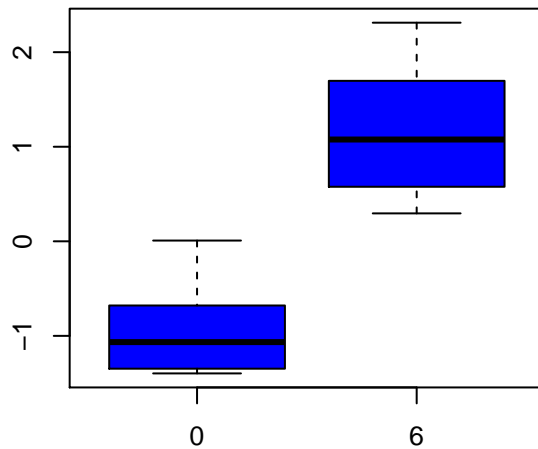
# lactate



**lactose**



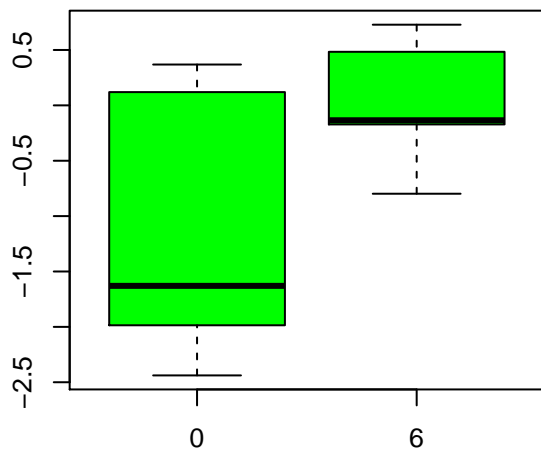
**lactose**



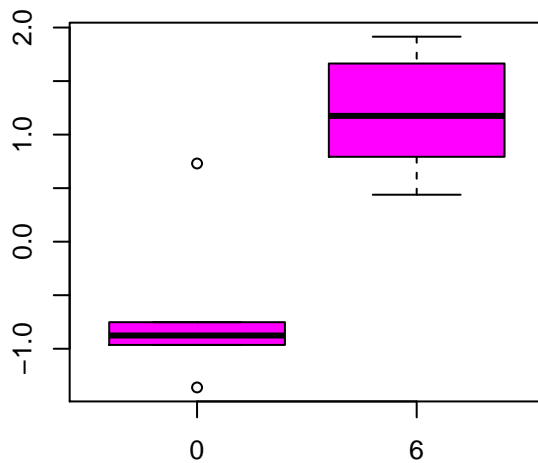
HCT116

OVCAR

**lactose**



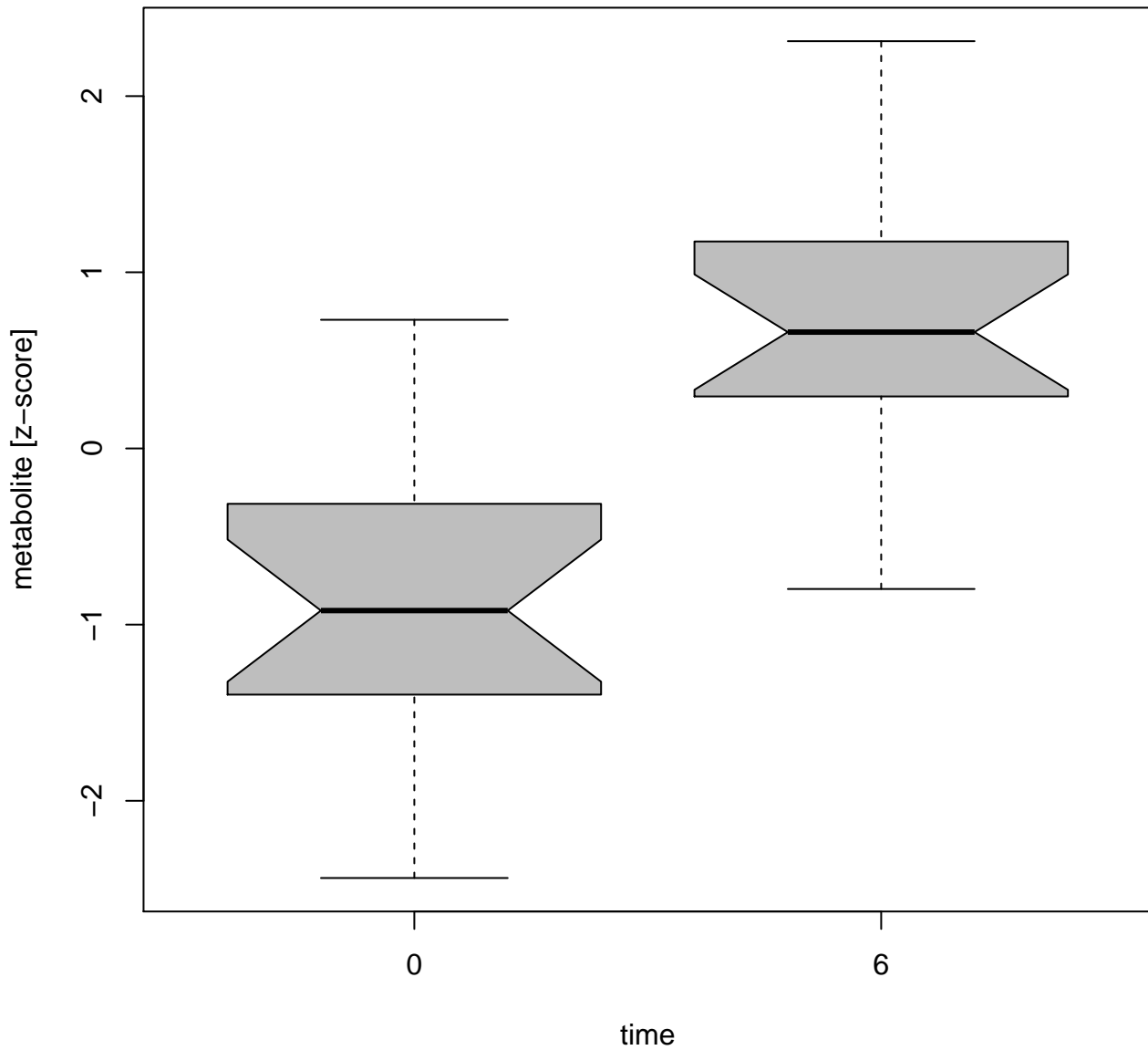
**lactose**



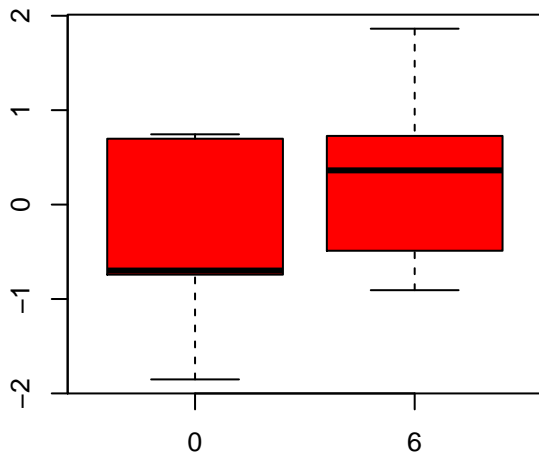
HCT15

SKOV3

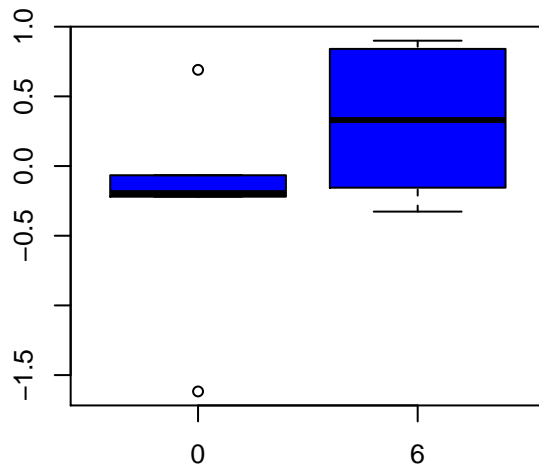
# lactose



**leucine**

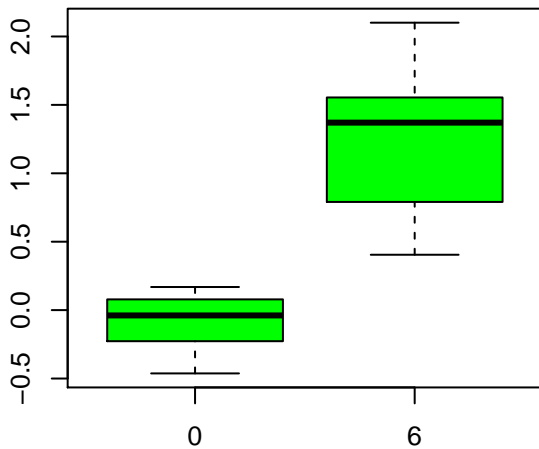


**leucine**



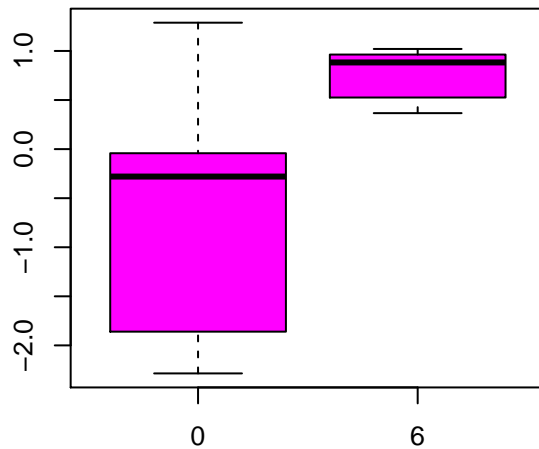
**HCT116**

**leucine**



**OVCAR**

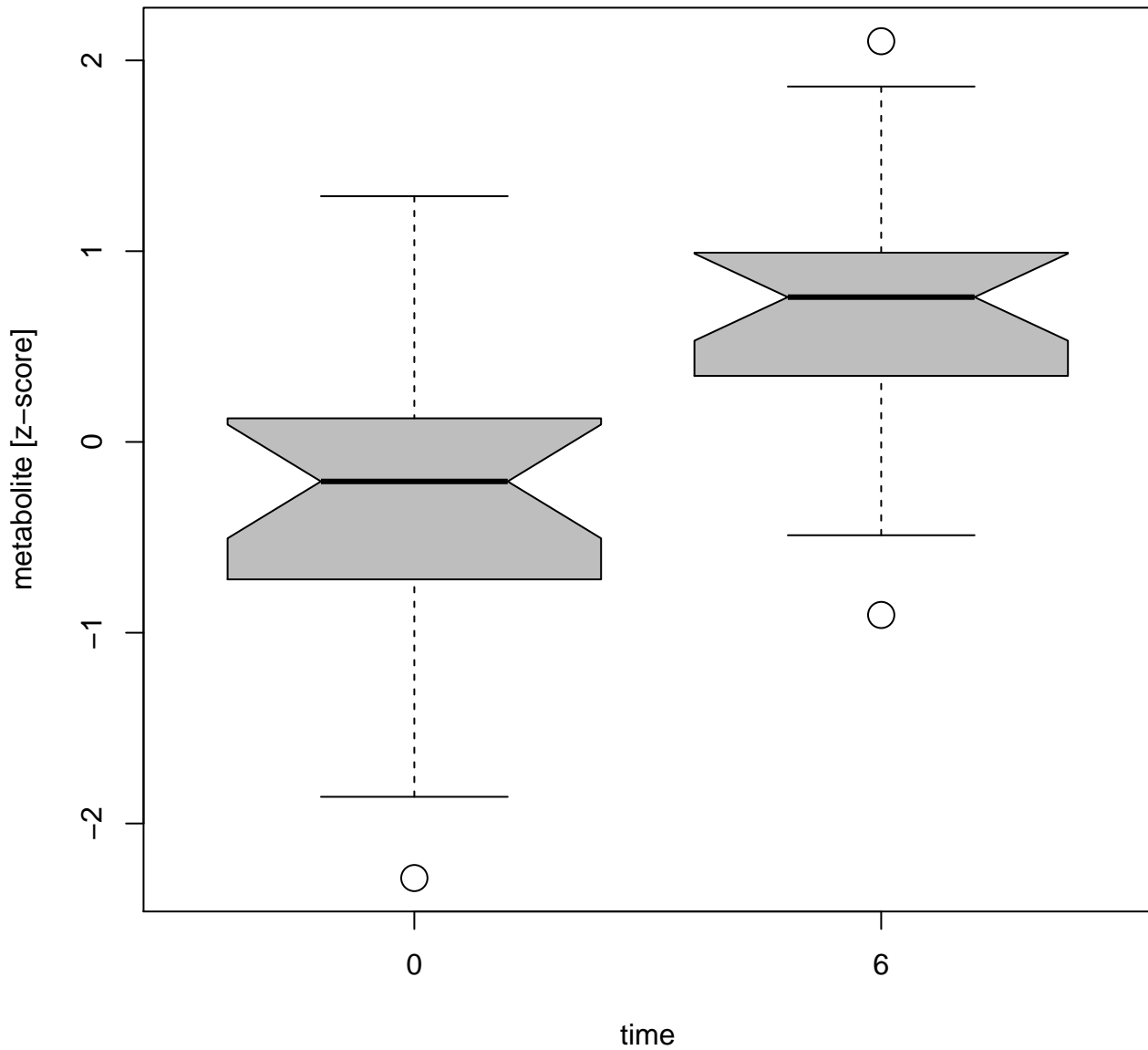
**leucine**



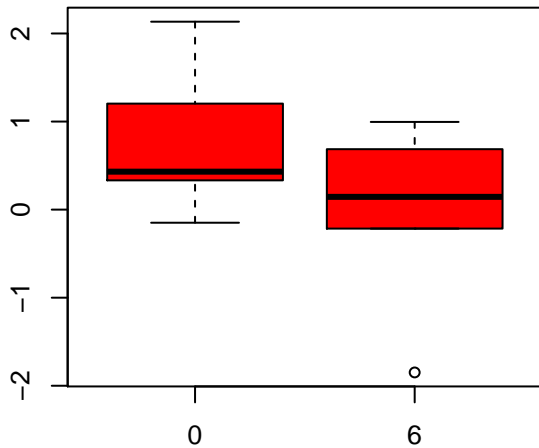
**HCT15**

**SKOV3**

# leucine

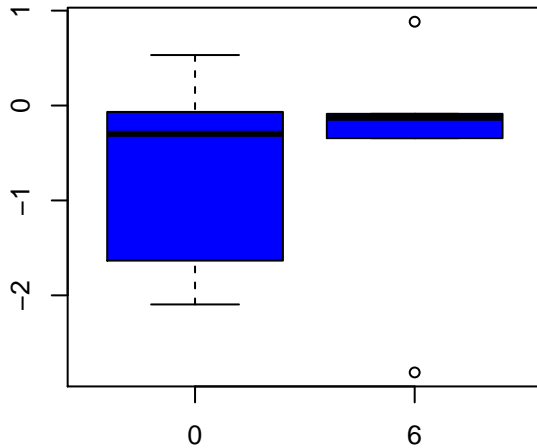


**leucylalanine**



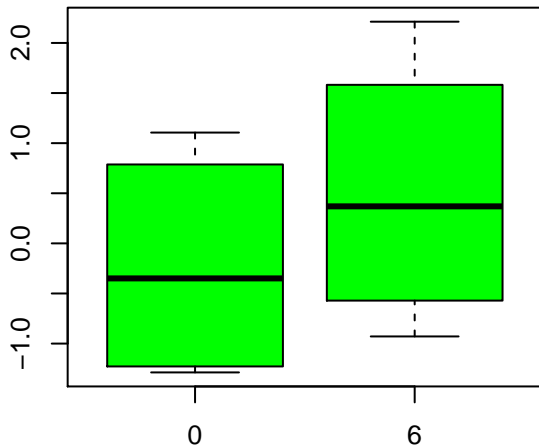
HCT116

**leucylalanine**



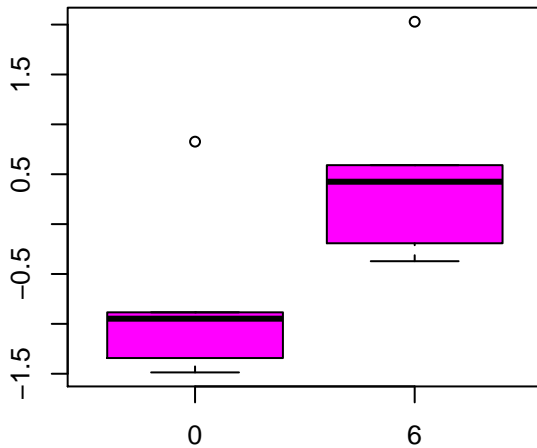
OVCAR

**leucylalanine**



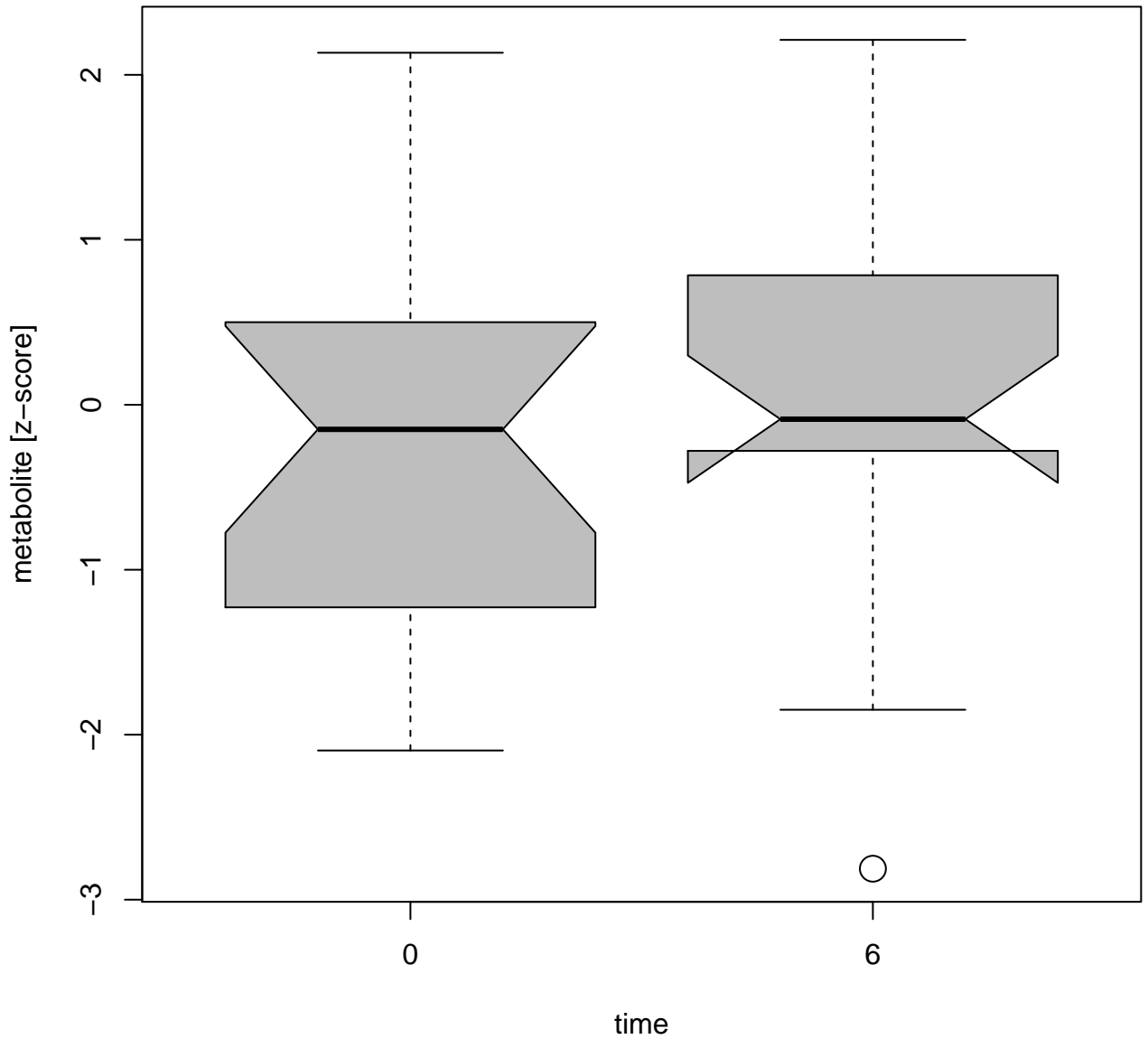
HCT15

**leucylalanine**

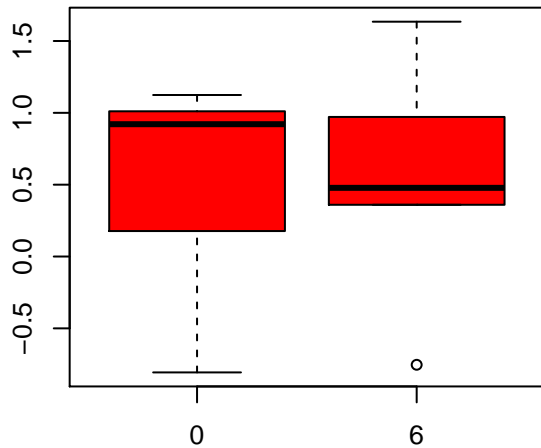


SKOV3

# leucylalanine

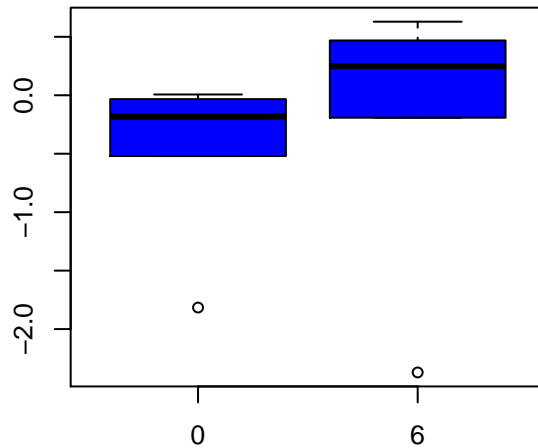


**leucylglutamate**



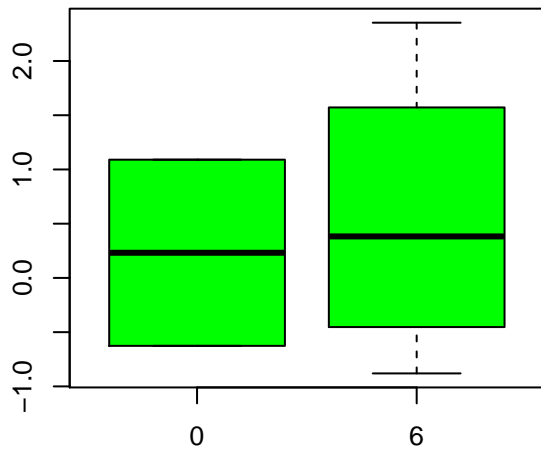
HCT116

**leucylglutamate**



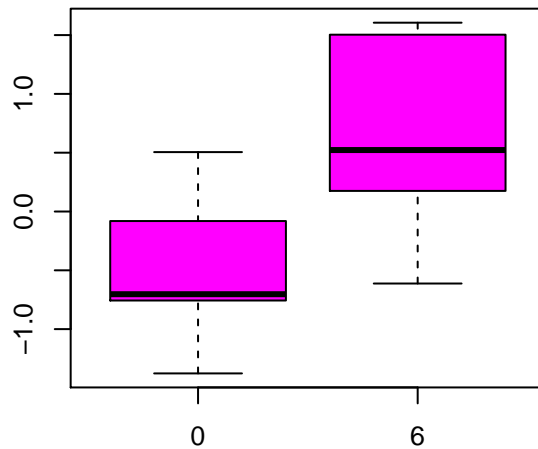
OVCAR

**leucylglutamate**



HCT15

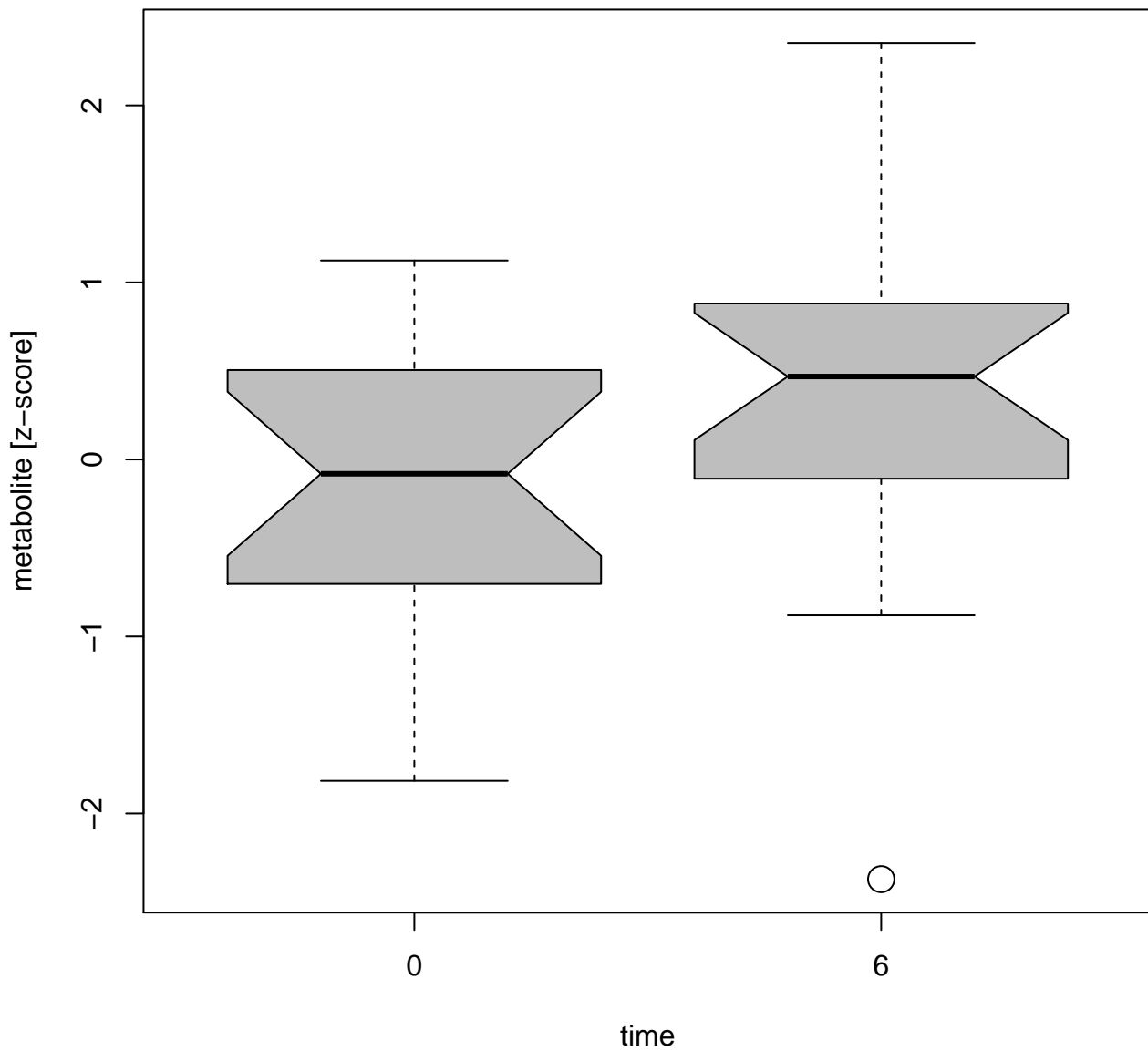
**leucylglutamate**



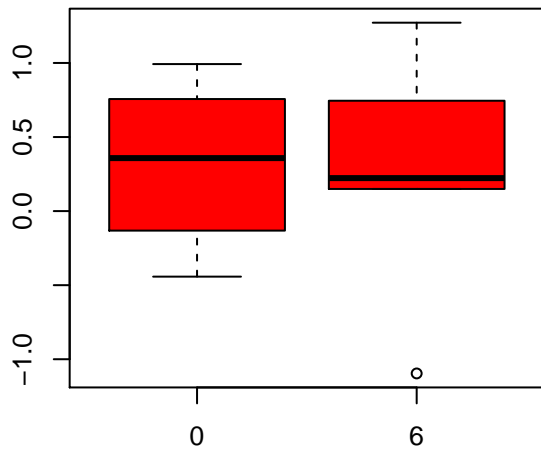
SKOV3



# leucylglutamate

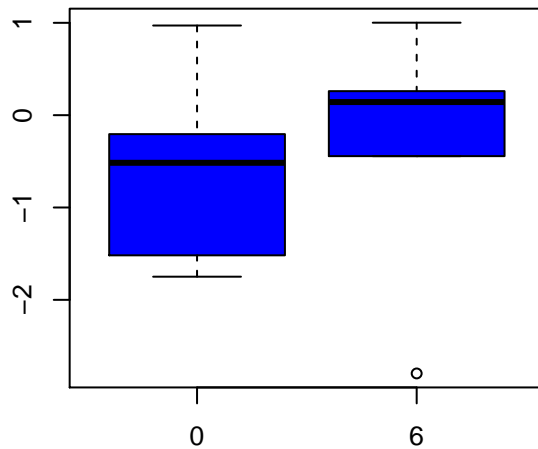


**leucylglycine**



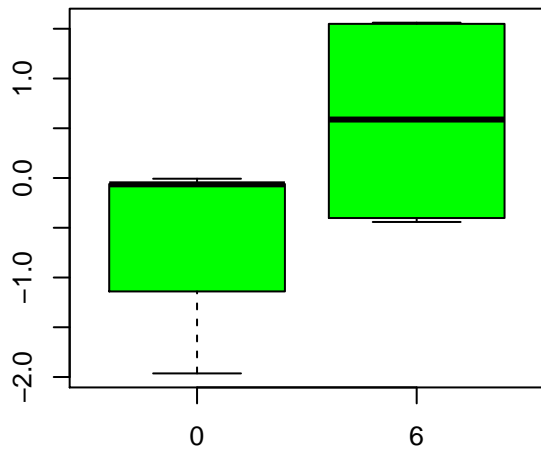
HCT116

**leucylglycine**



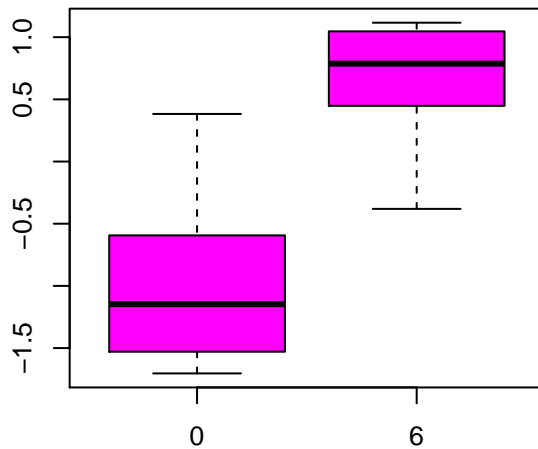
OVCAR

**leucylglycine**



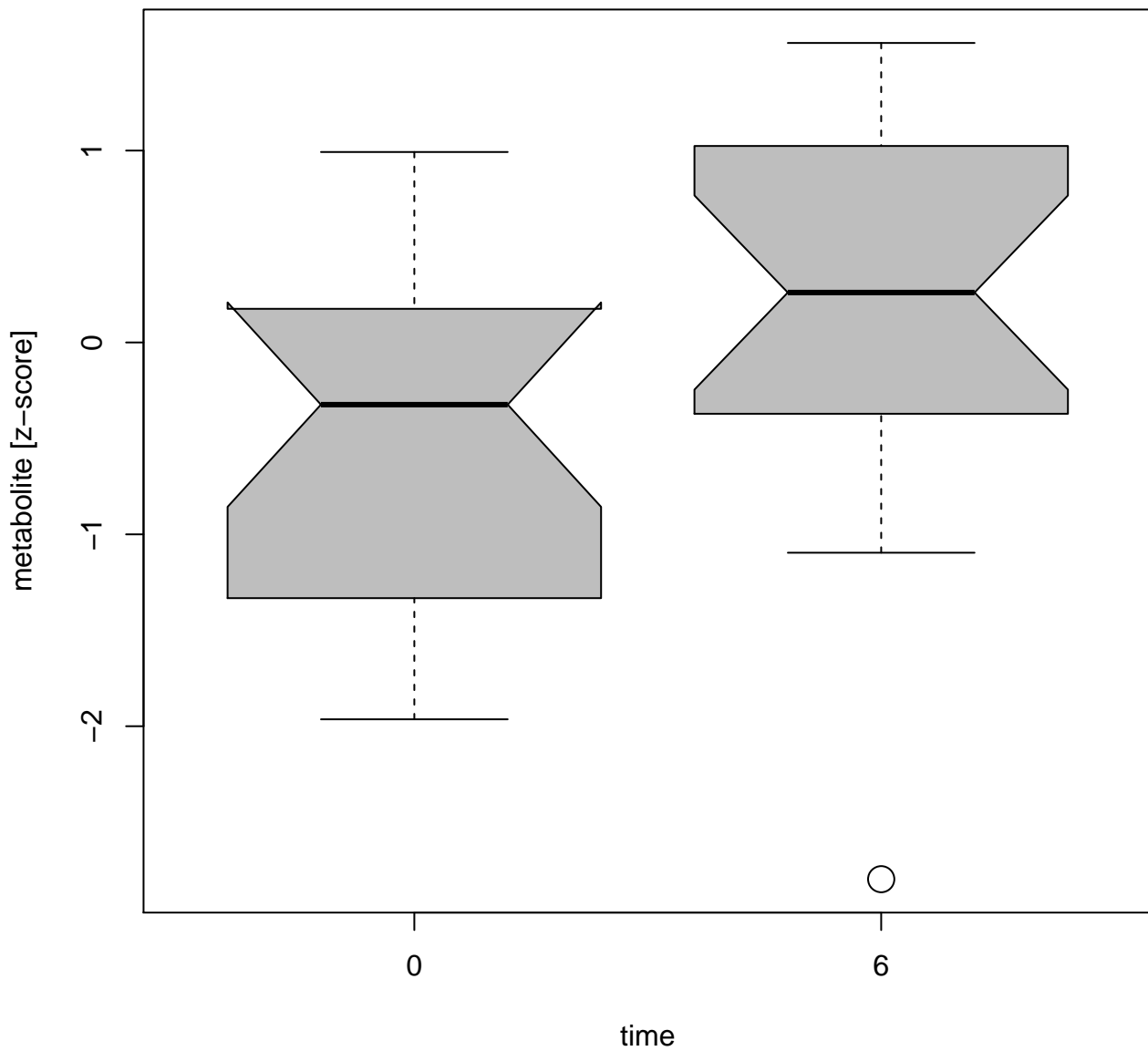
HCT15

**leucylglycine**

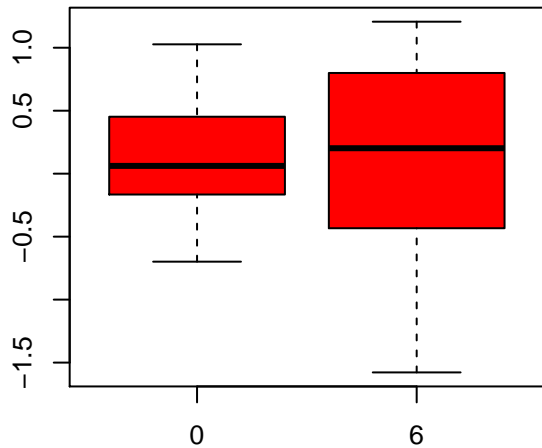


SKOV3

# leucylglycine

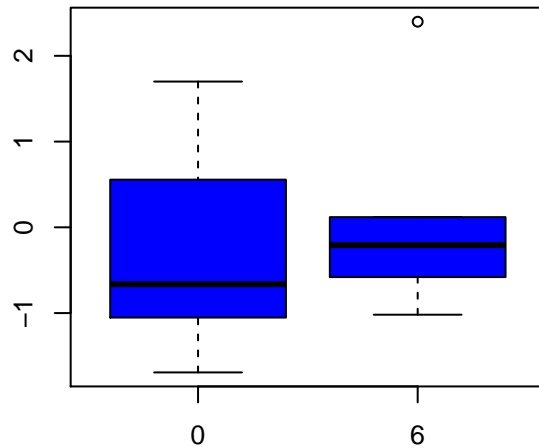


**leucylisoleucine**



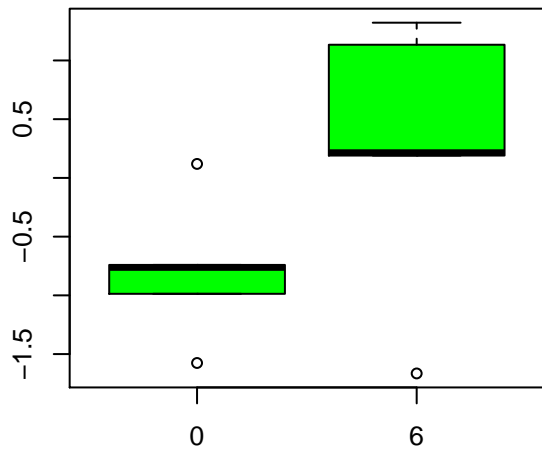
HCT116

**leucylisoleucine**



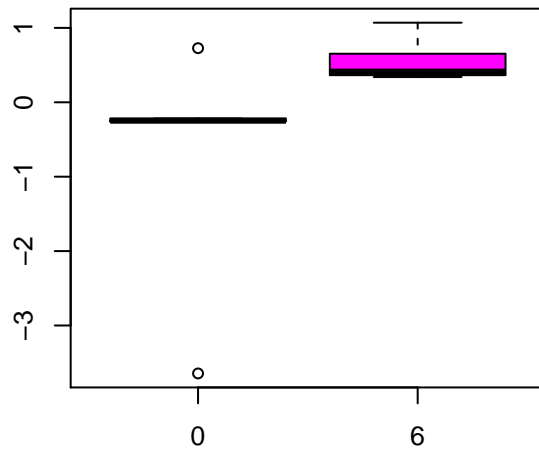
OVCAR

**leucylisoleucine**



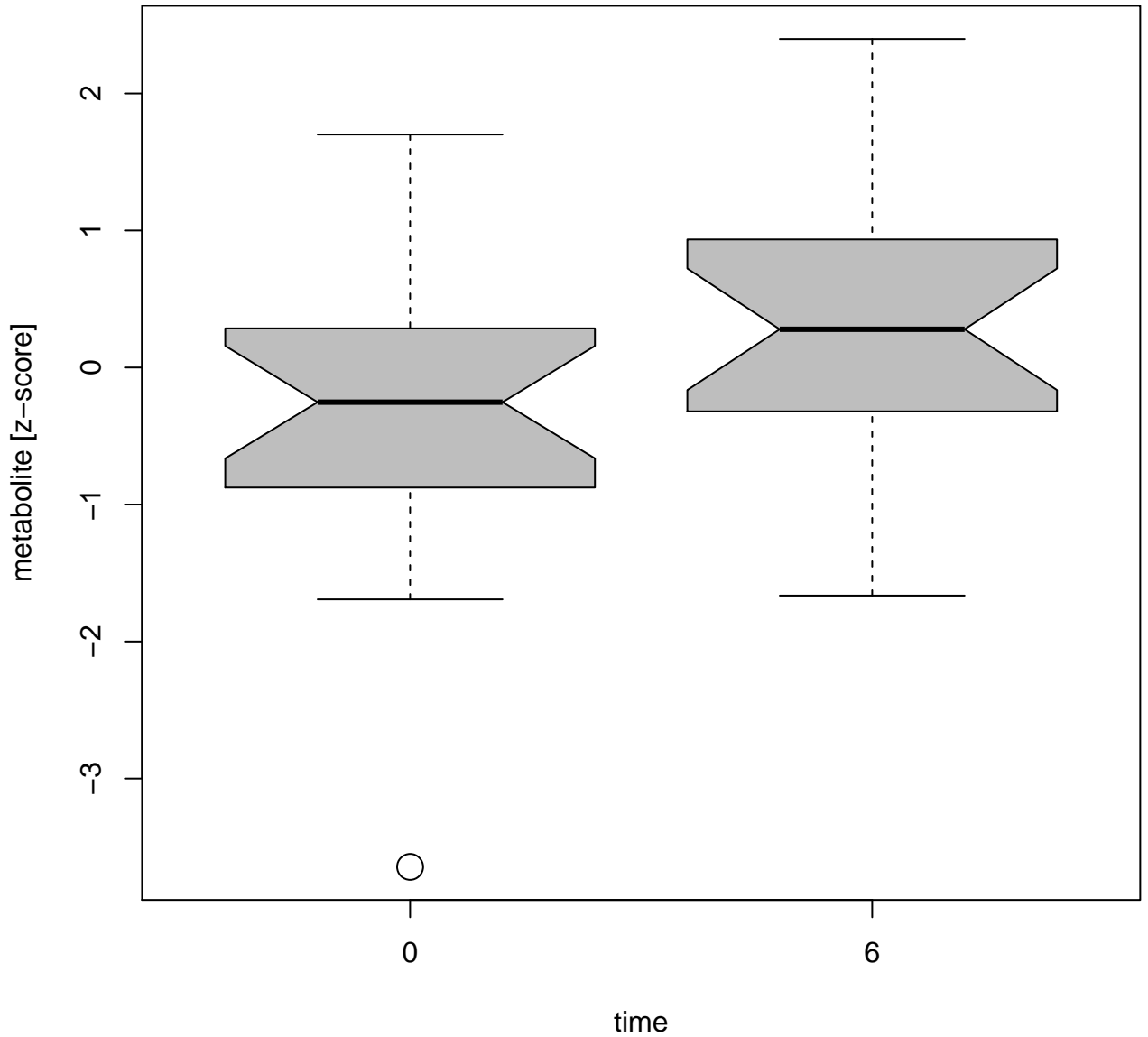
HCT15

**leucylisoleucine**

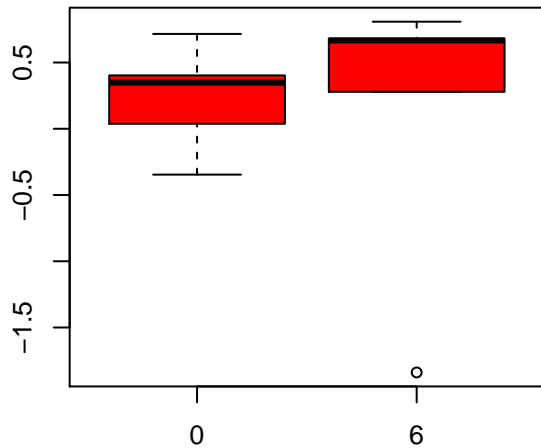


SKOV3

# leucylisoleucine

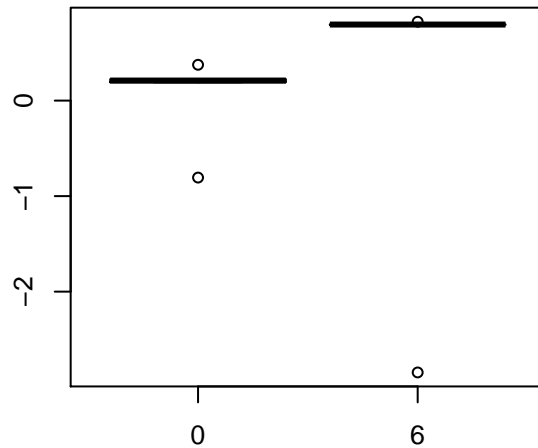


**leucylleucine**



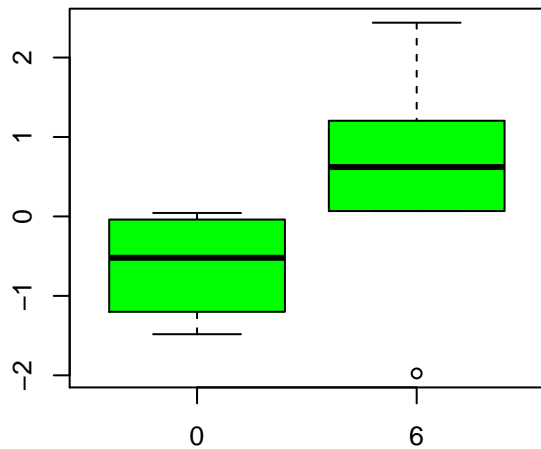
HCT116

**leucylleucine**



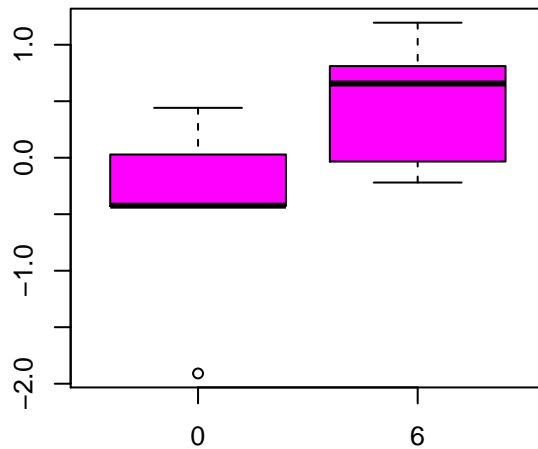
OVCAR

**leucylleucine**



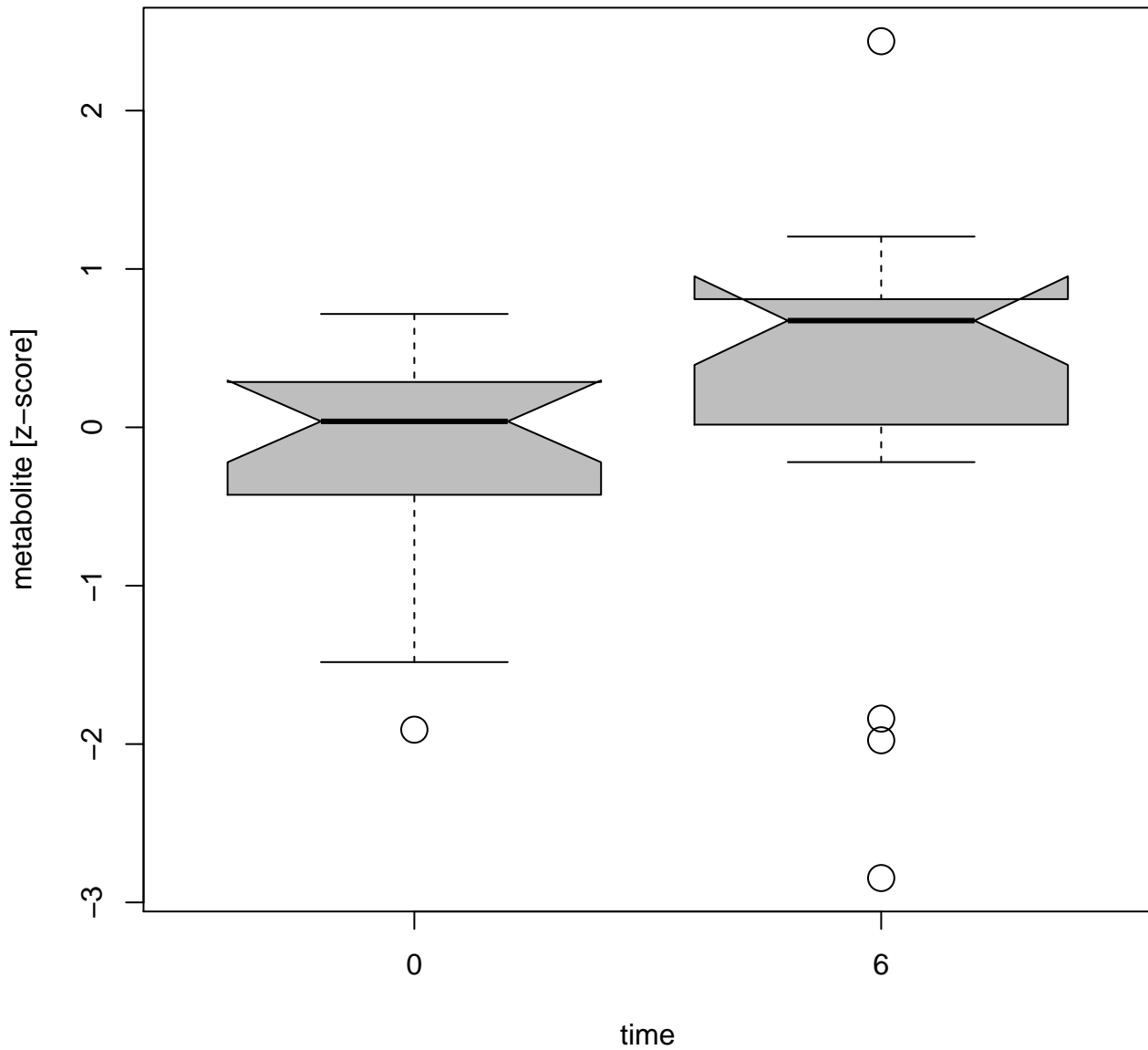
HCT15

**leucylleucine**

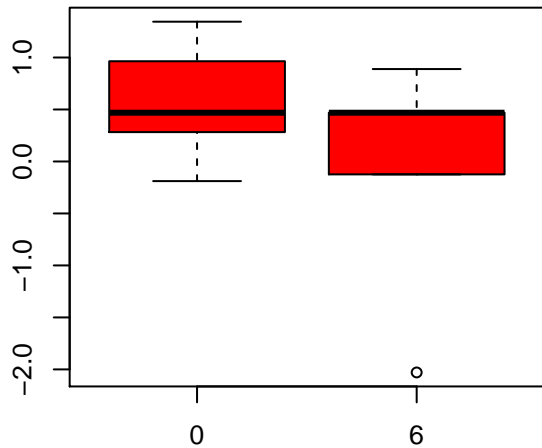


SKOV3

# leucylleucine

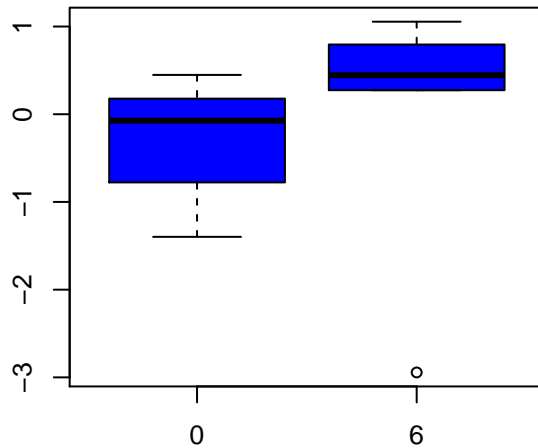


**leucylphenylalanine**



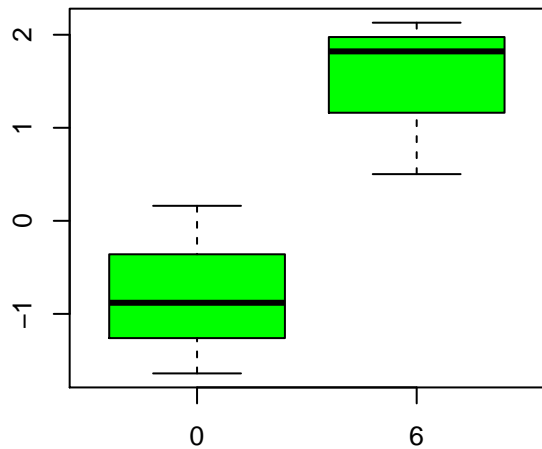
HCT116

**leucylphenylalanine**



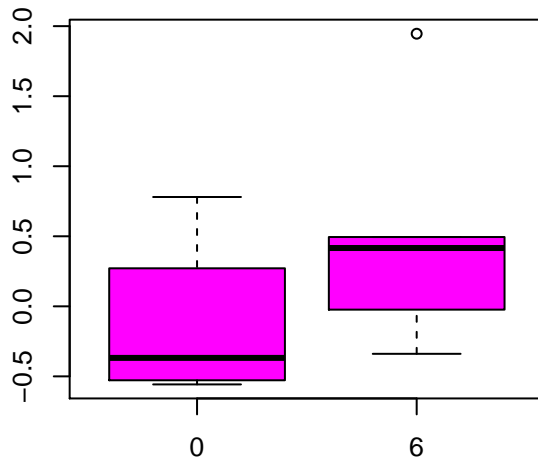
OVCAR

**leucylphenylalanine**



HCT15

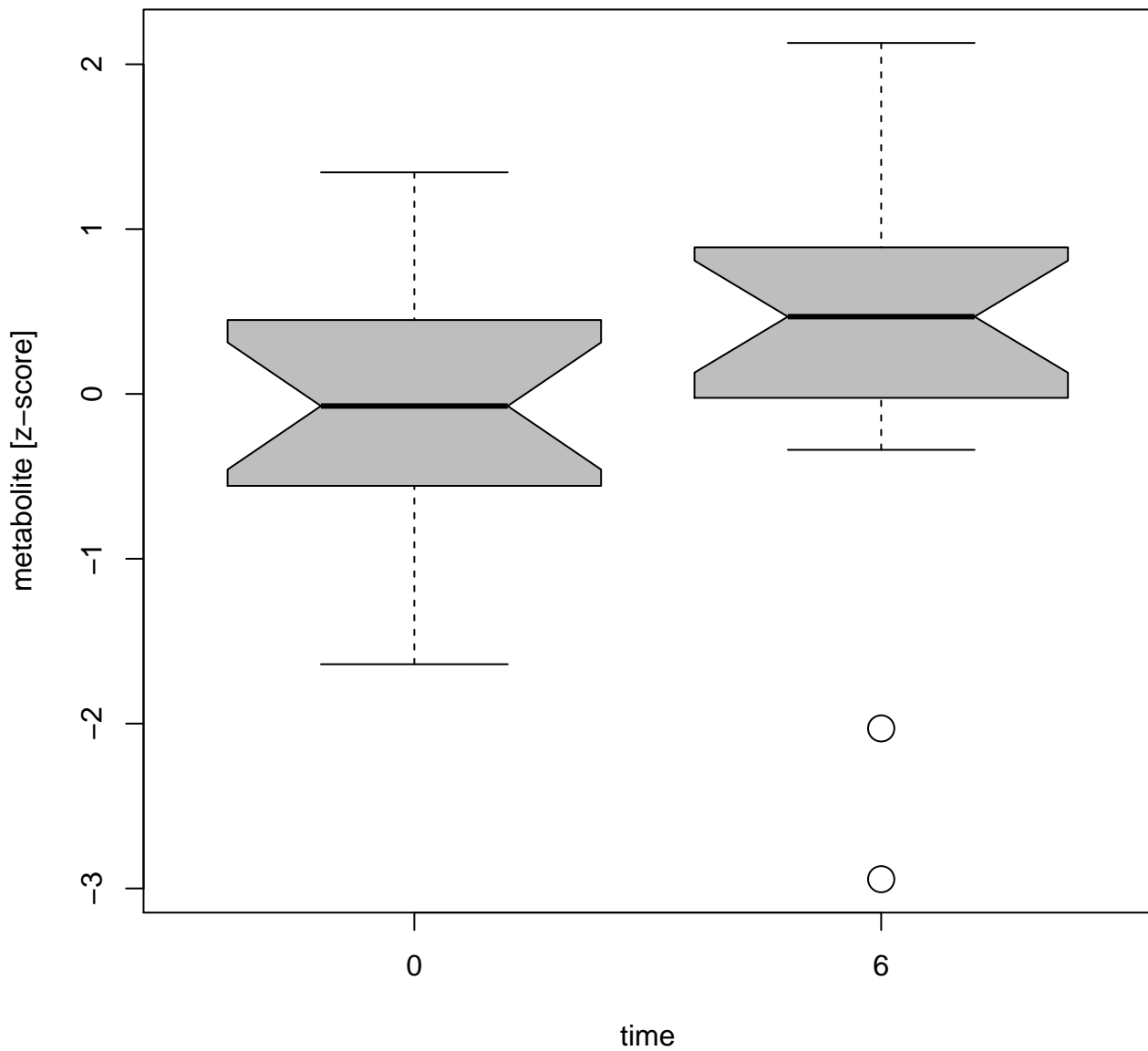
**leucylphenylalanine**



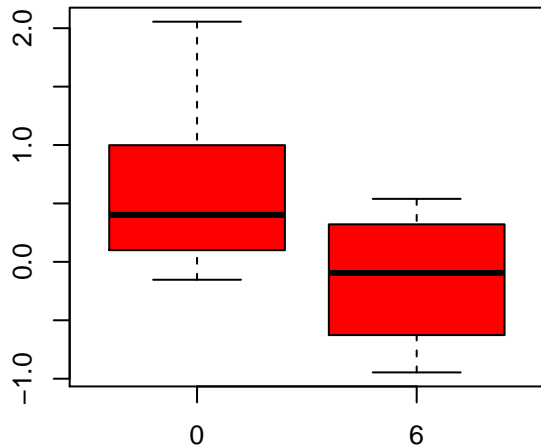
SKOV3



# leucylphenylalanine

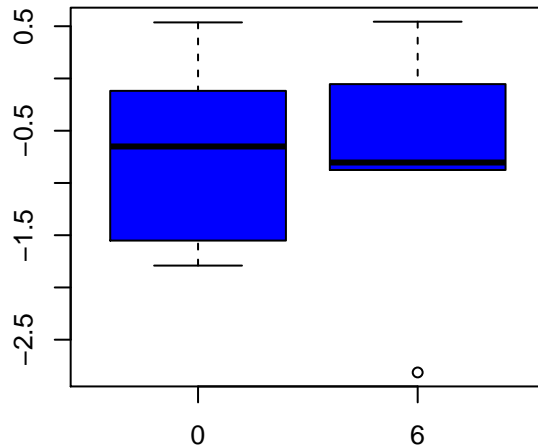


**leucylserine**



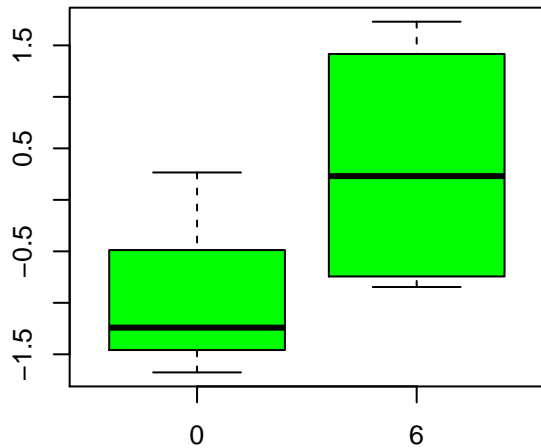
HCT116

**leucylserine**



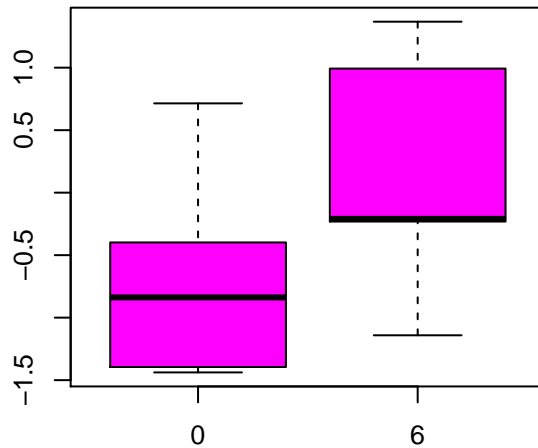
OVCAR

**leucylserine**



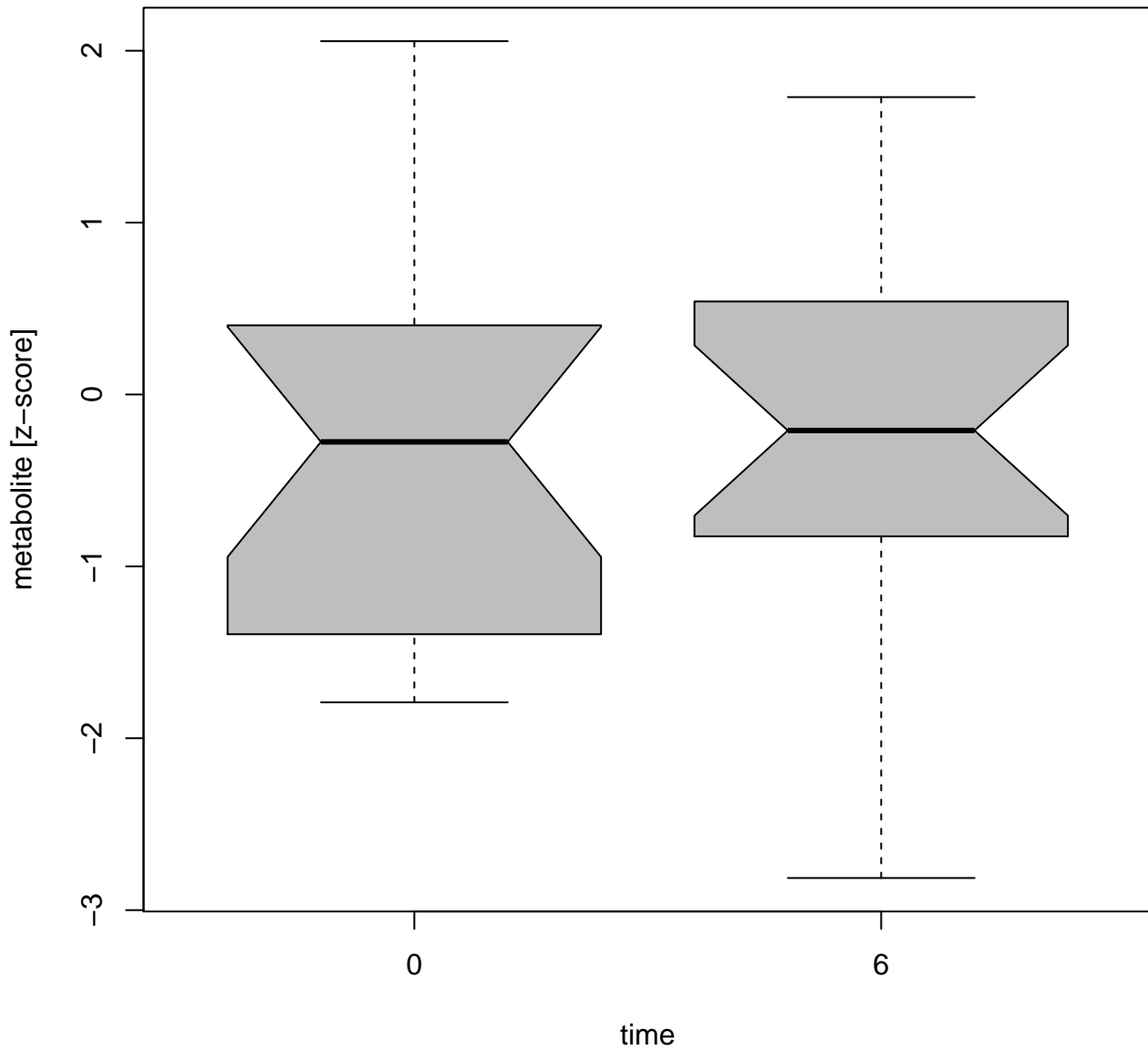
HCT15

**leucylserine**

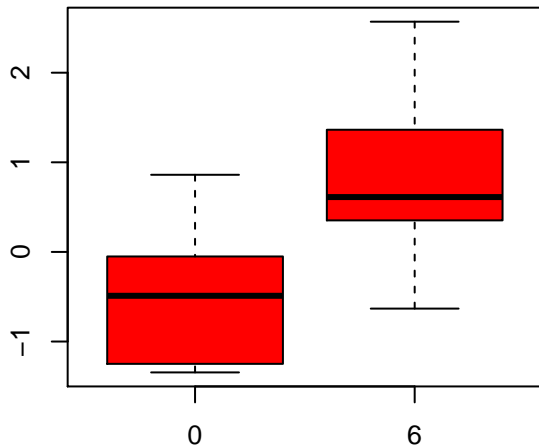


SKOV3

# leucylserine

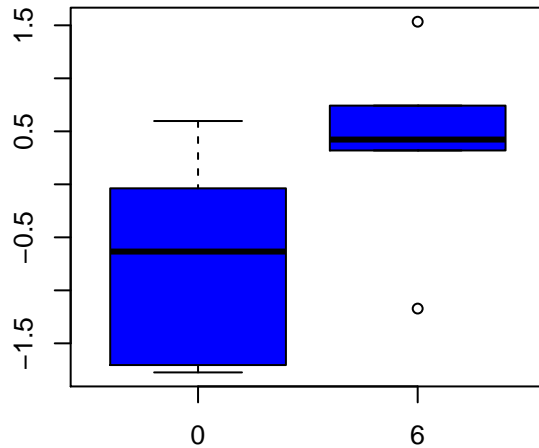


**linoleate (18:2n6)**



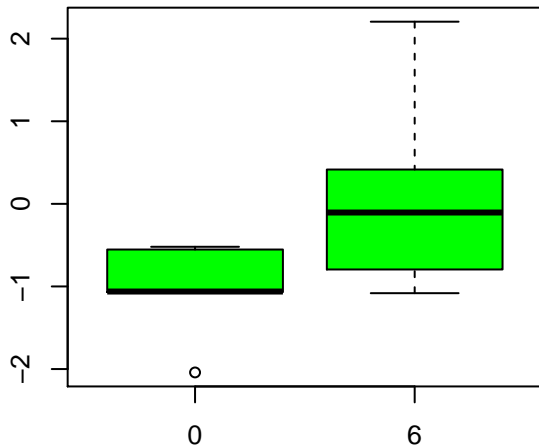
HCT116

**linoleate (18:2n6)**



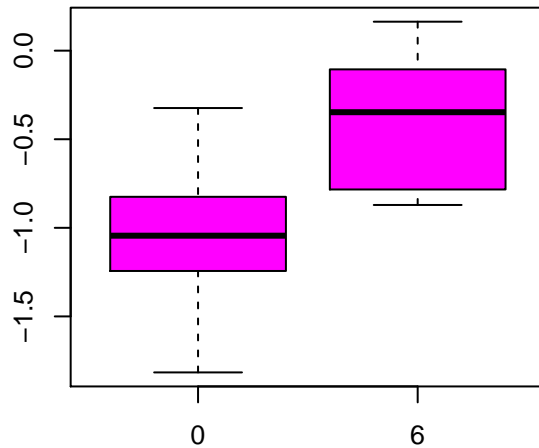
OVCAR

**linoleate (18:2n6)**



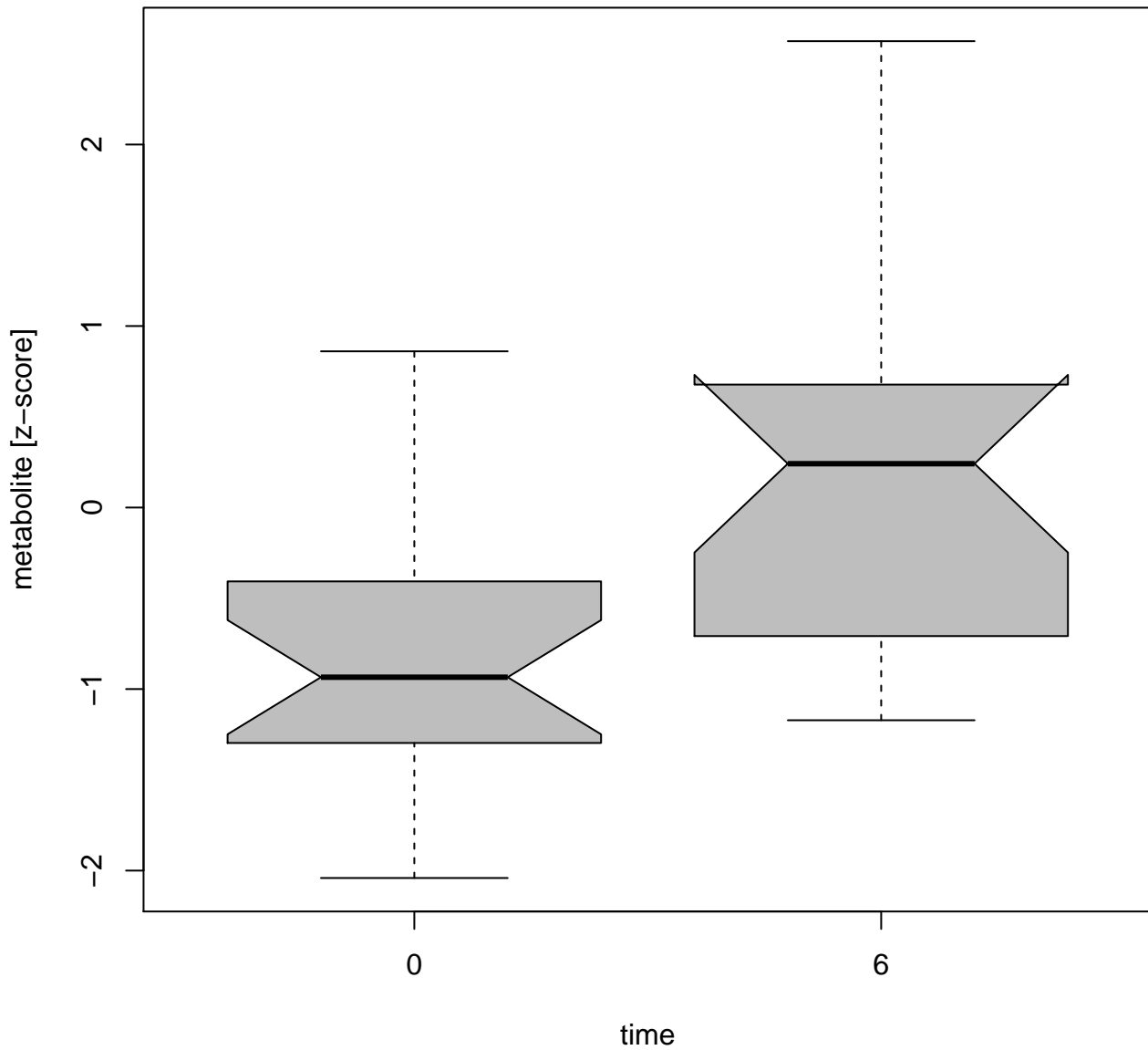
HCT15

**linoleate (18:2n6)**

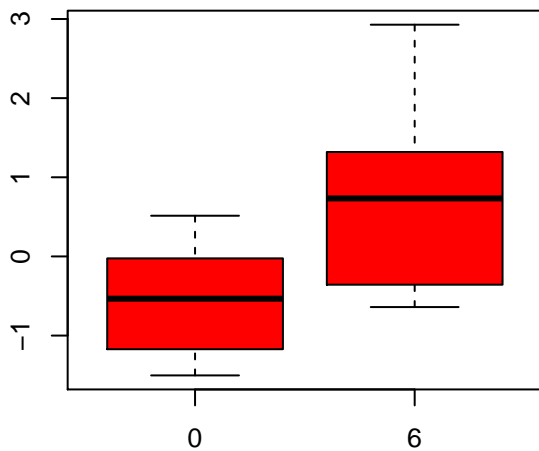


SKOV3

# linoleate (18:2n6)

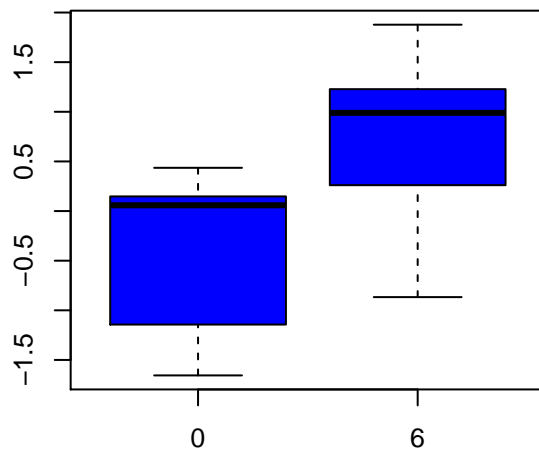


linolenate [alpha or gamma (18:3n3 or 6)]



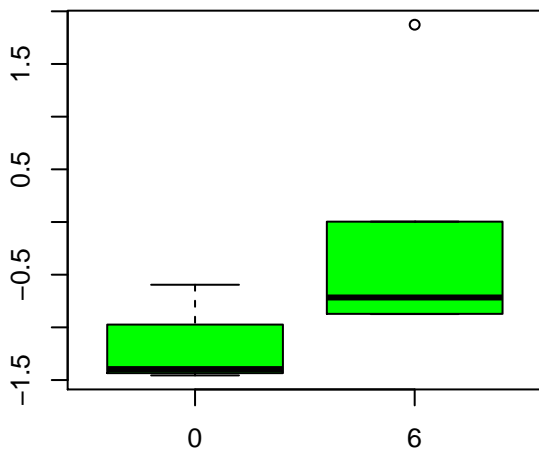
HCT116

linolenate [alpha or gamma (18:3n3 or 6)]



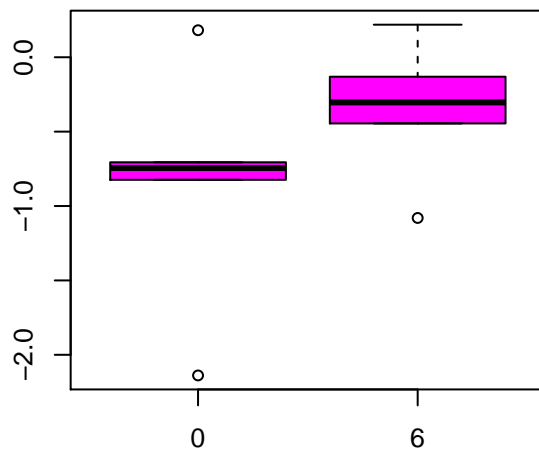
OVCAR

linolenate [alpha or gamma (18:3n3 or 6)]



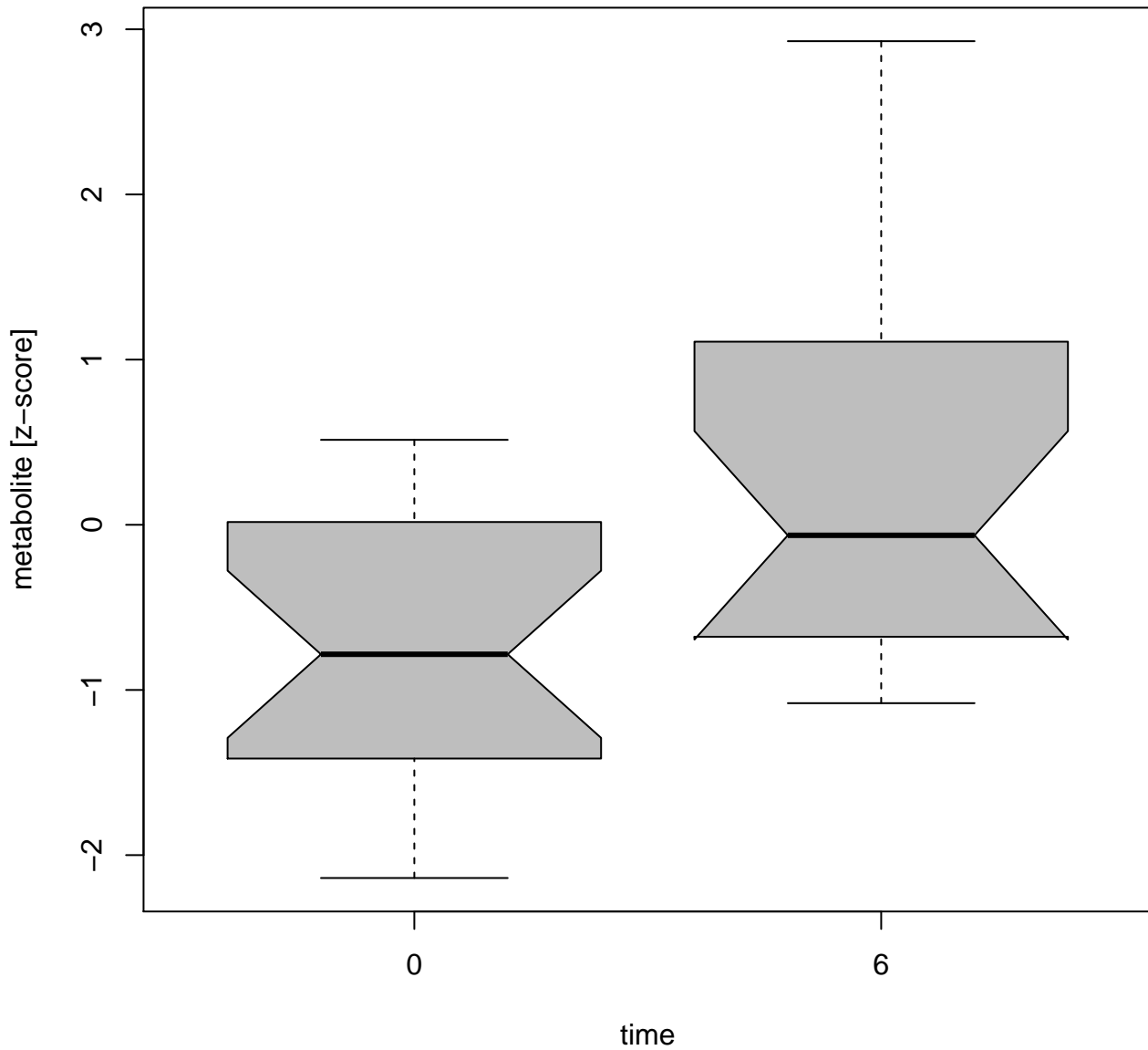
HCT15

linolenate [alpha or gamma (18:3n3 or 6)]

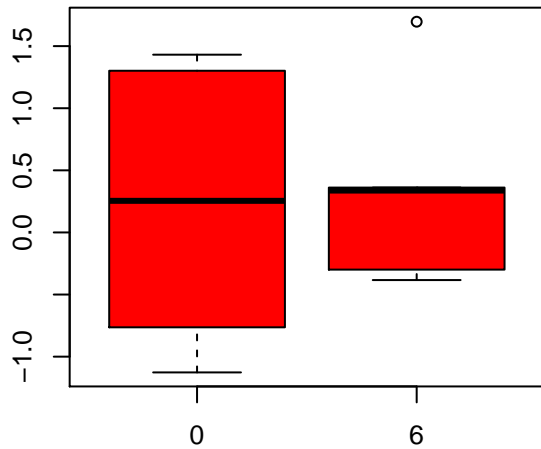


SKOV3

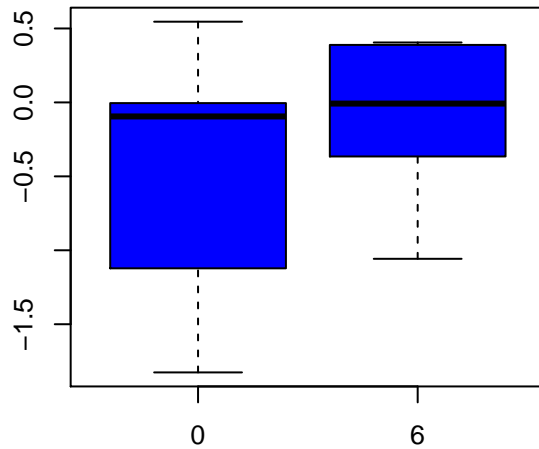
# linolenate [alpha or gamma (18:3n3 or 6)]



**lysine**



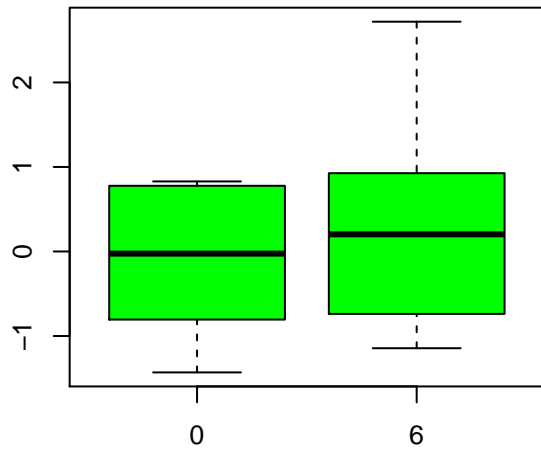
**lysine**



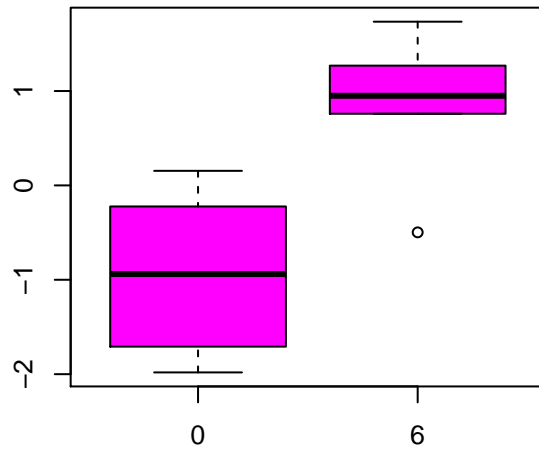
HCT116

OVCAR

**lysine**



**lysine**

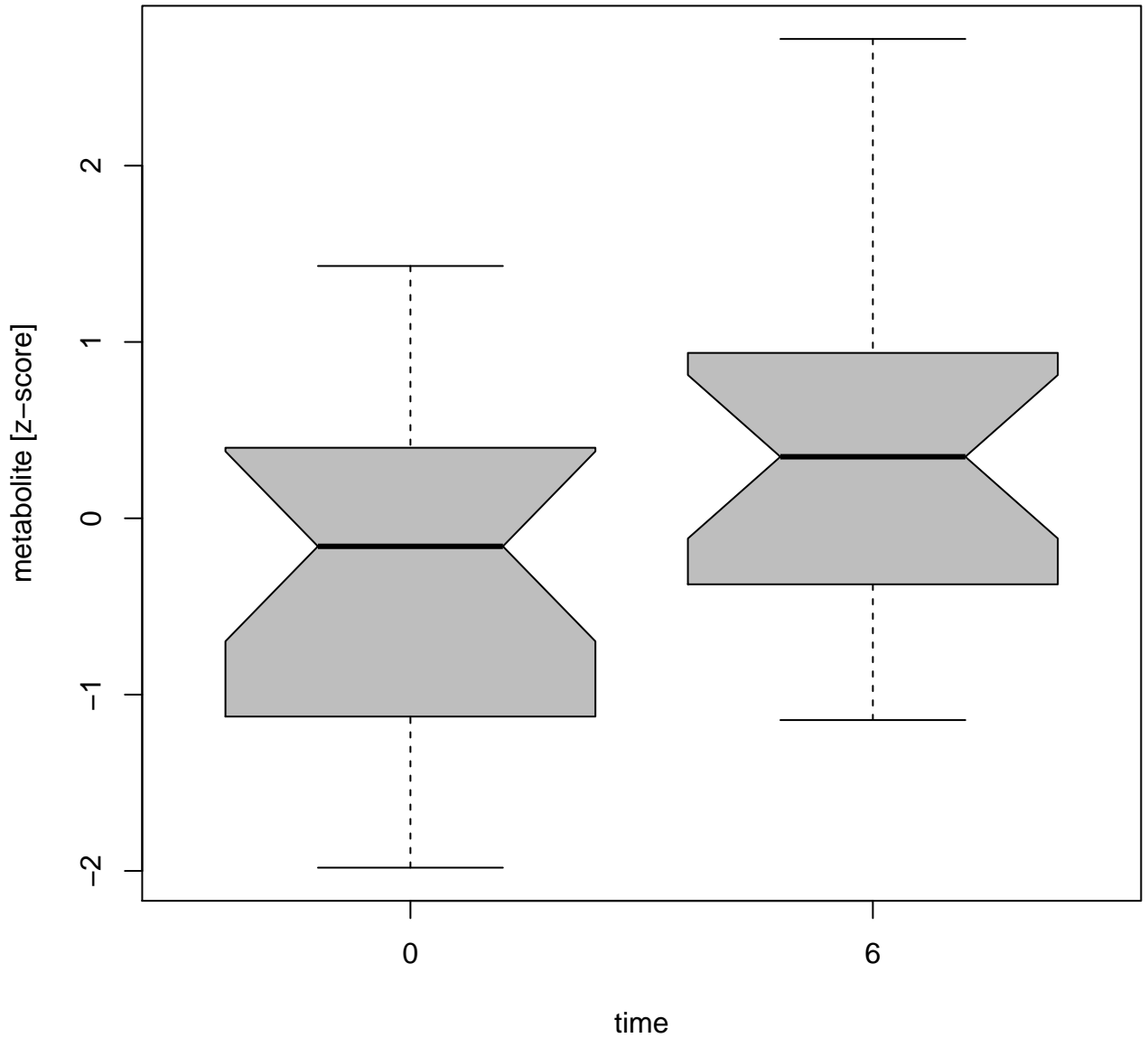


HCT15

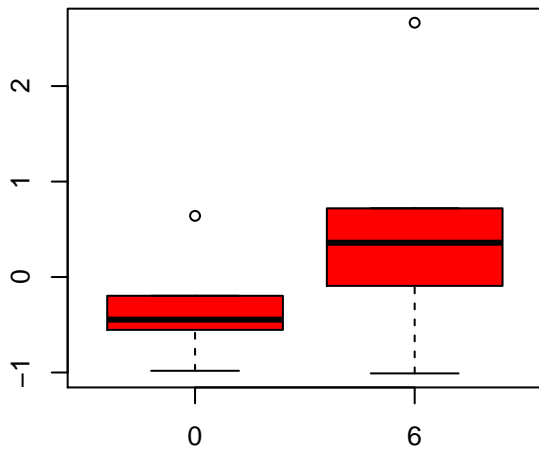
SKOV3



# lysine

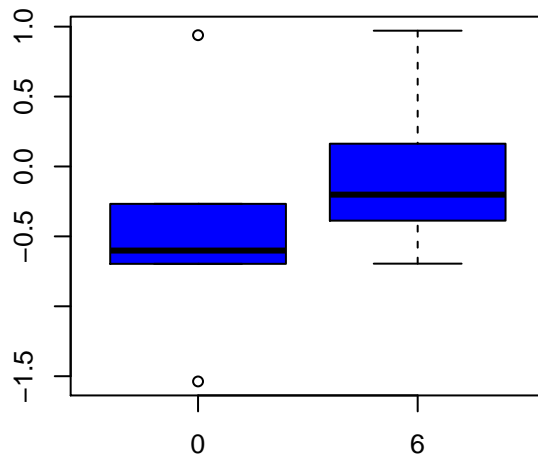


**methionine**



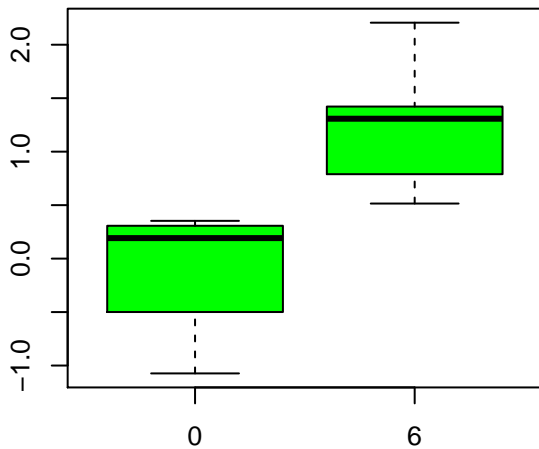
HCT116

**methionine**



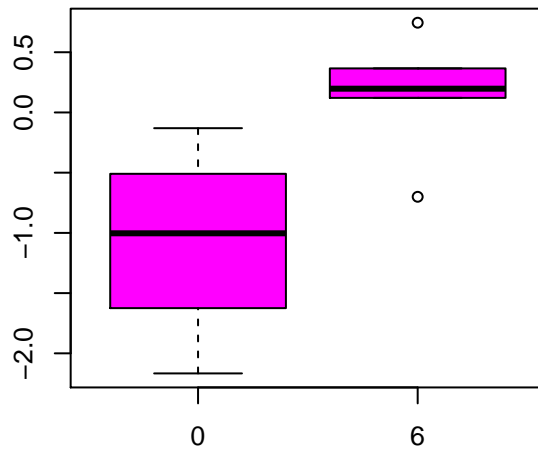
OVCAR

**methionine**



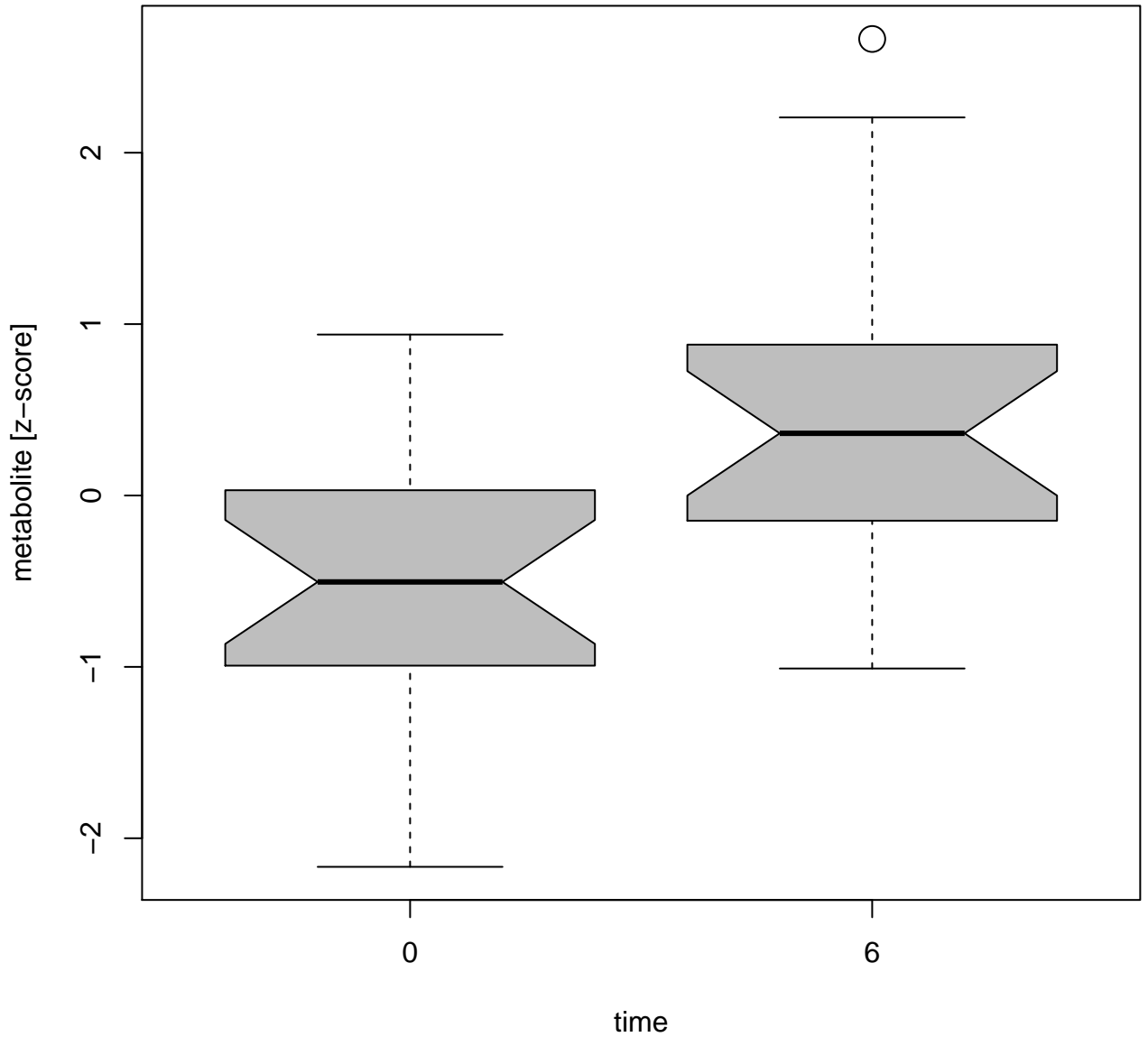
HCT15

**methionine**

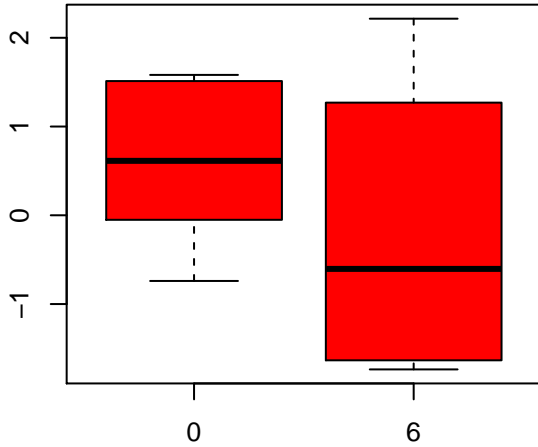


SKOV3

# methionine

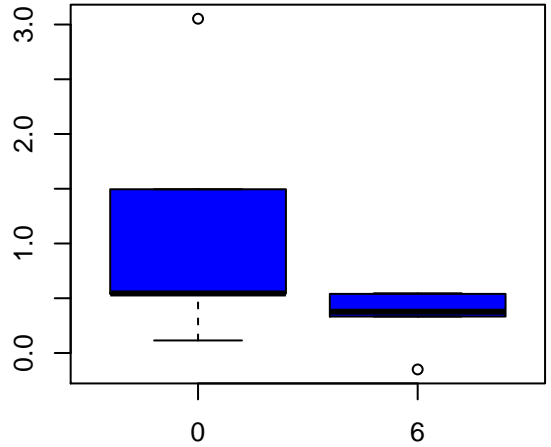


**methionine sulfoxide**



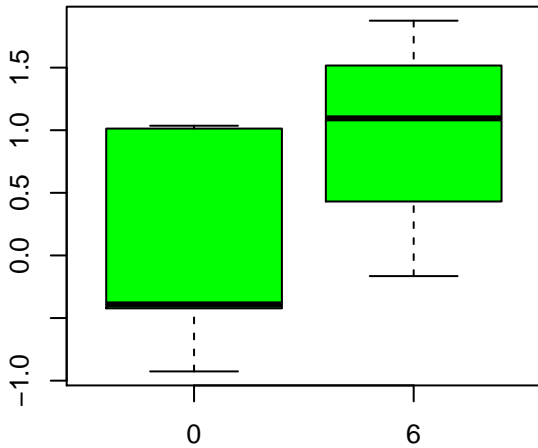
HCT116

**methionine sulfoxide**



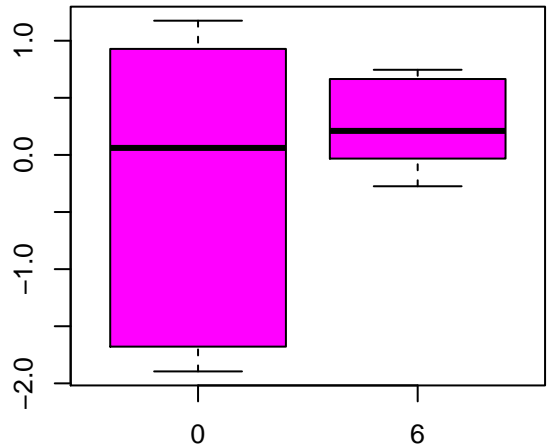
OVCAR

**methionine sulfoxide**



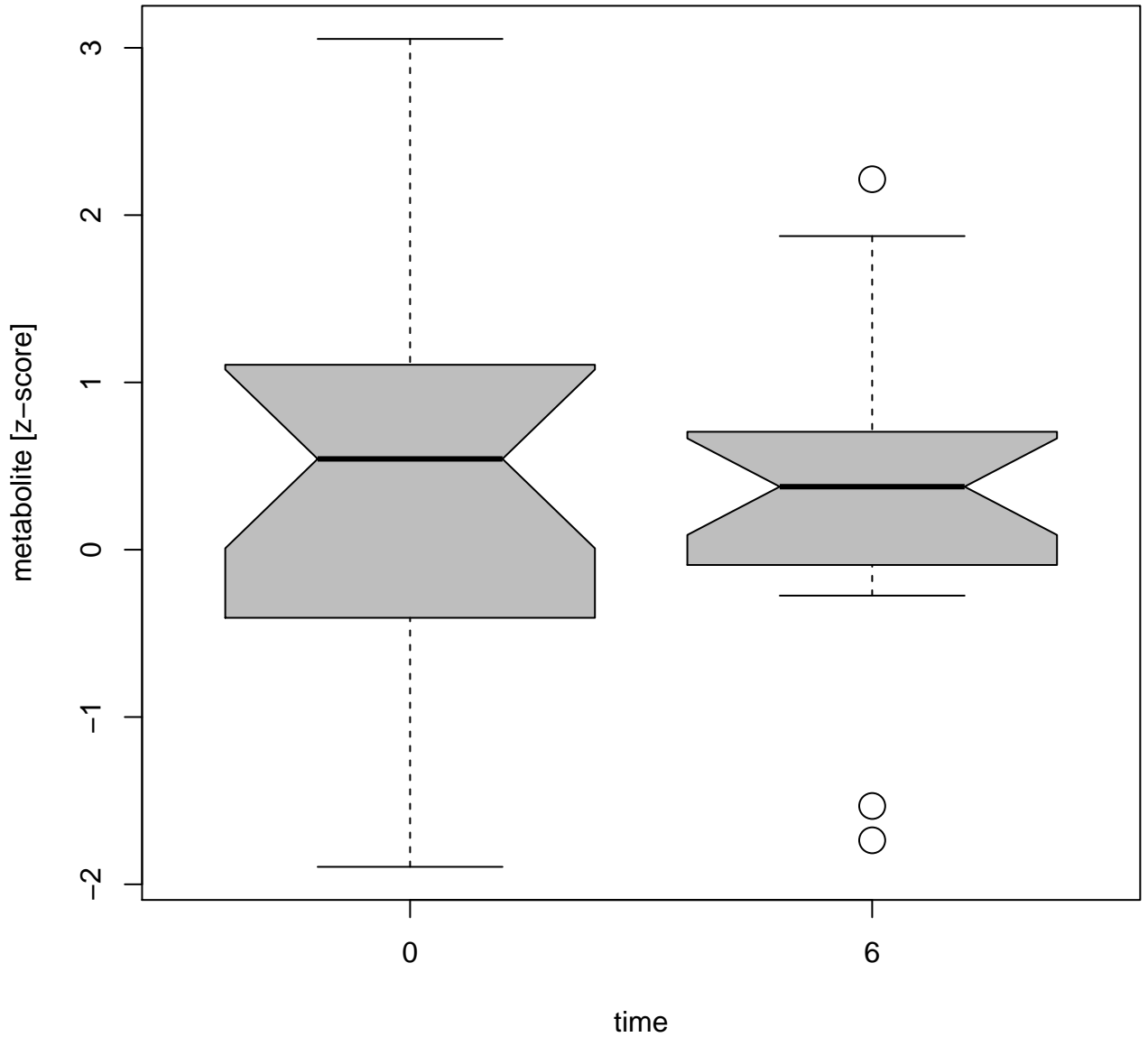
HCT15

**methionine sulfoxide**

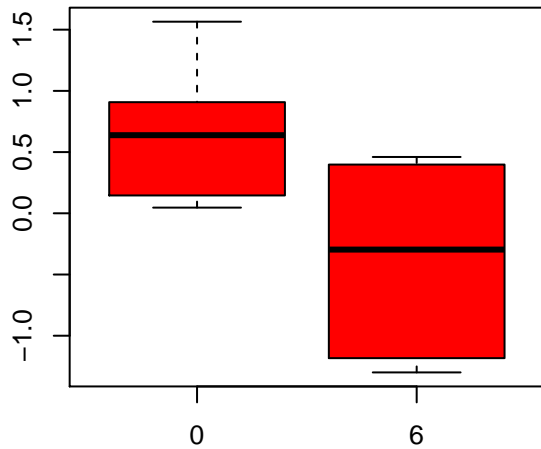


SKOV3

# methionine sulfoxide

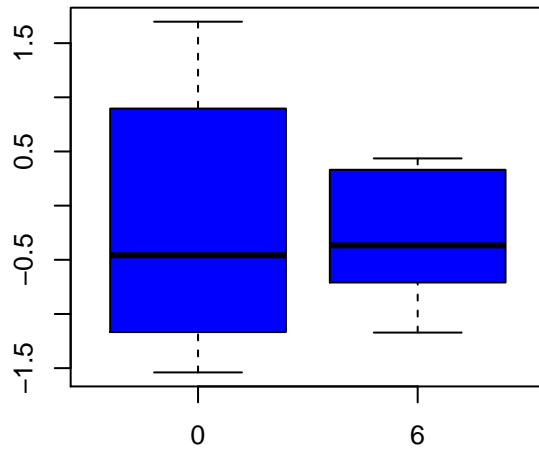


**myo-inositol**



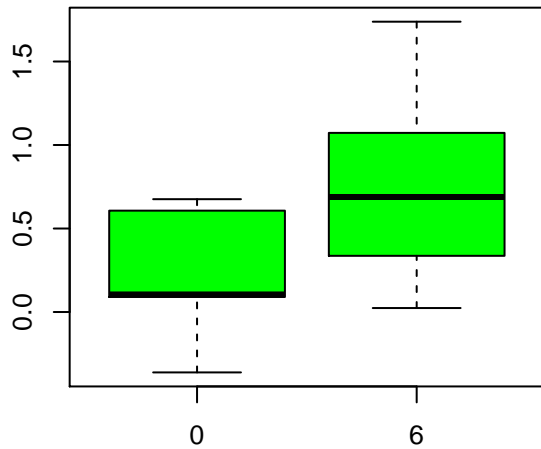
HCT116

**myo-inositol**



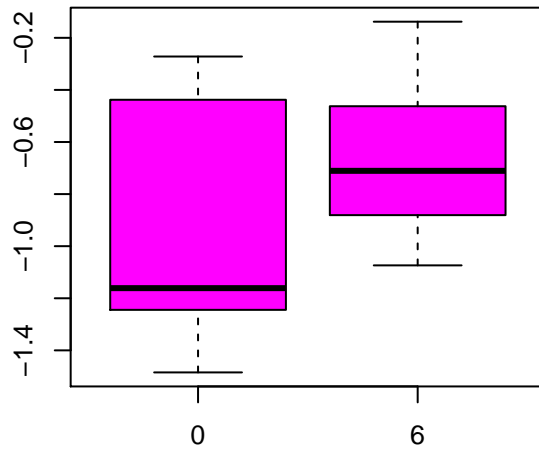
OVCAR

**myo-inositol**



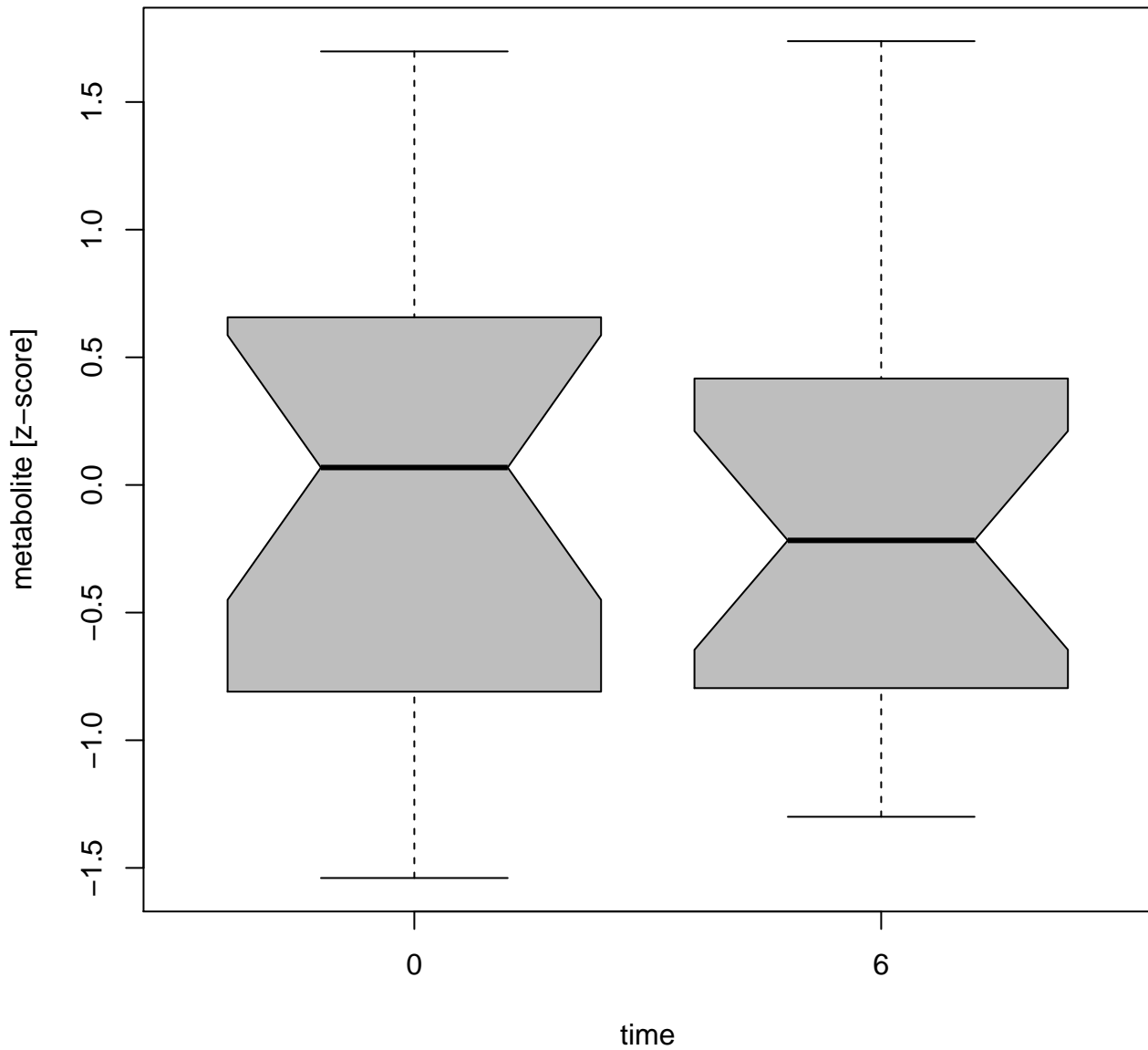
HCT15

**myo-inositol**

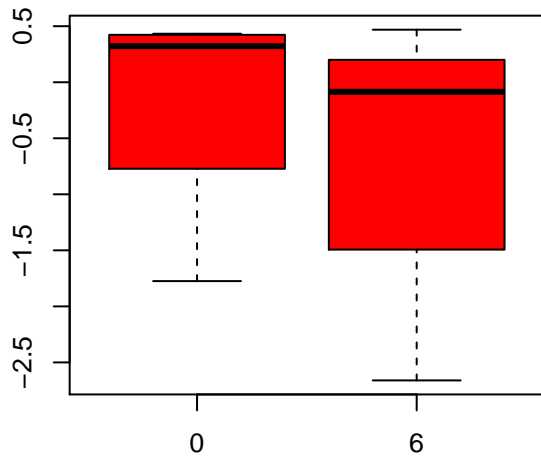


SKOV3

# myo-inositol

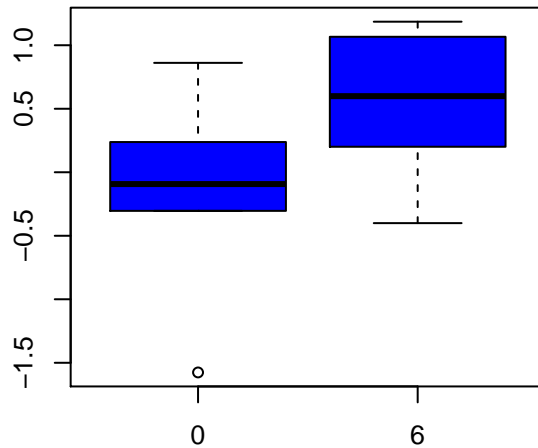


**N-acetylaspartate (NAA)**



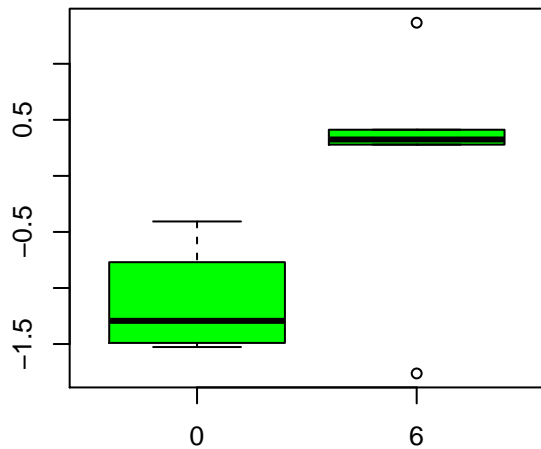
HCT116

**N-acetylaspartate (NAA)**



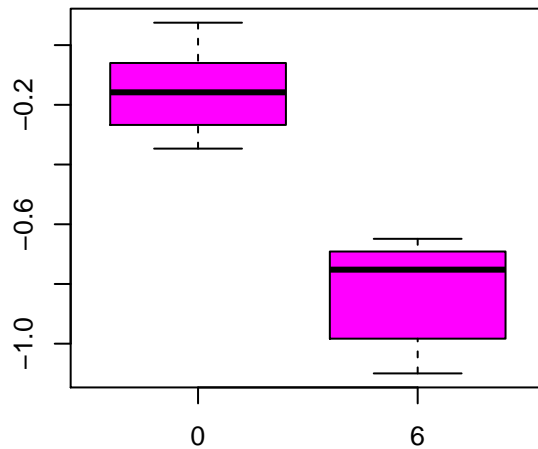
OVCAR

**N-acetylaspartate (NAA)**



HCT15

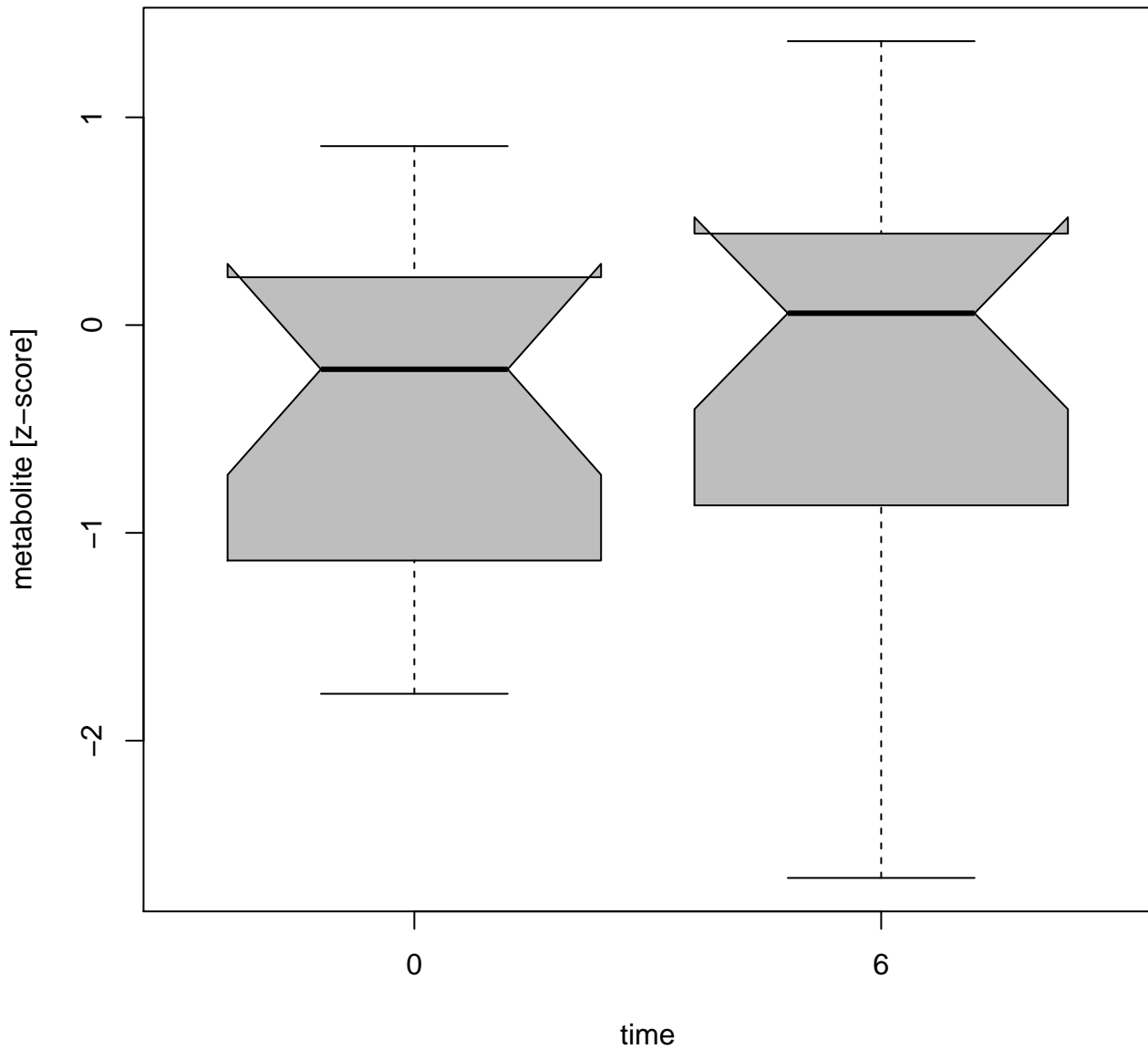
**N-acetylaspartate (NAA)**



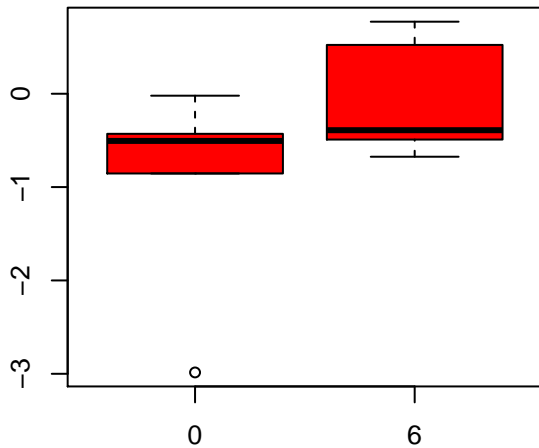
SKOV3



# N-acetylaspartate (NAA)

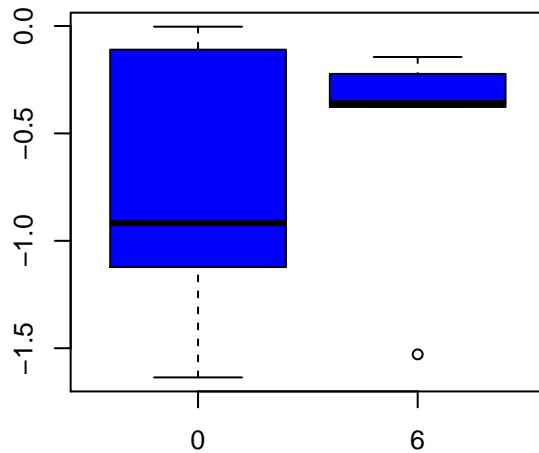


**N-acetylglutamate**



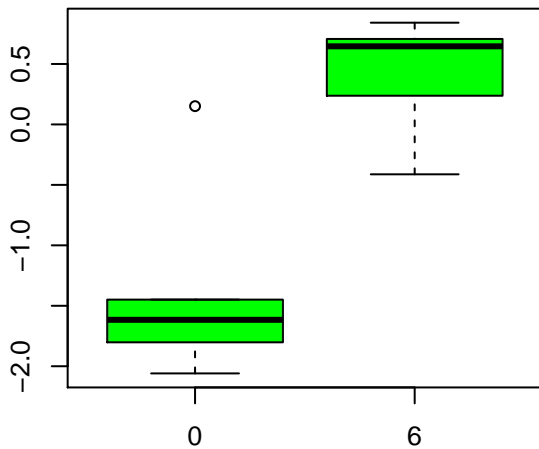
HCT116

**N-acetylglutamate**



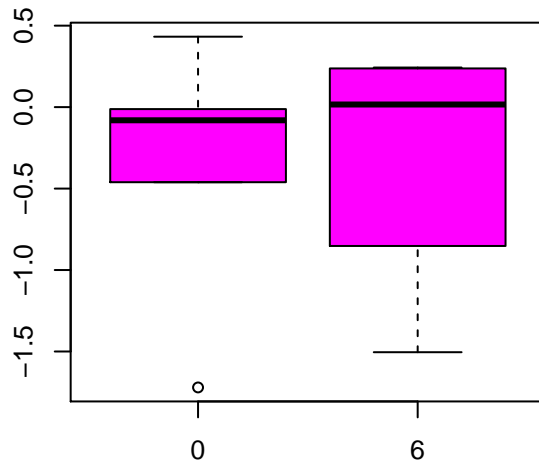
OVCAR

**N-acetylglutamate**



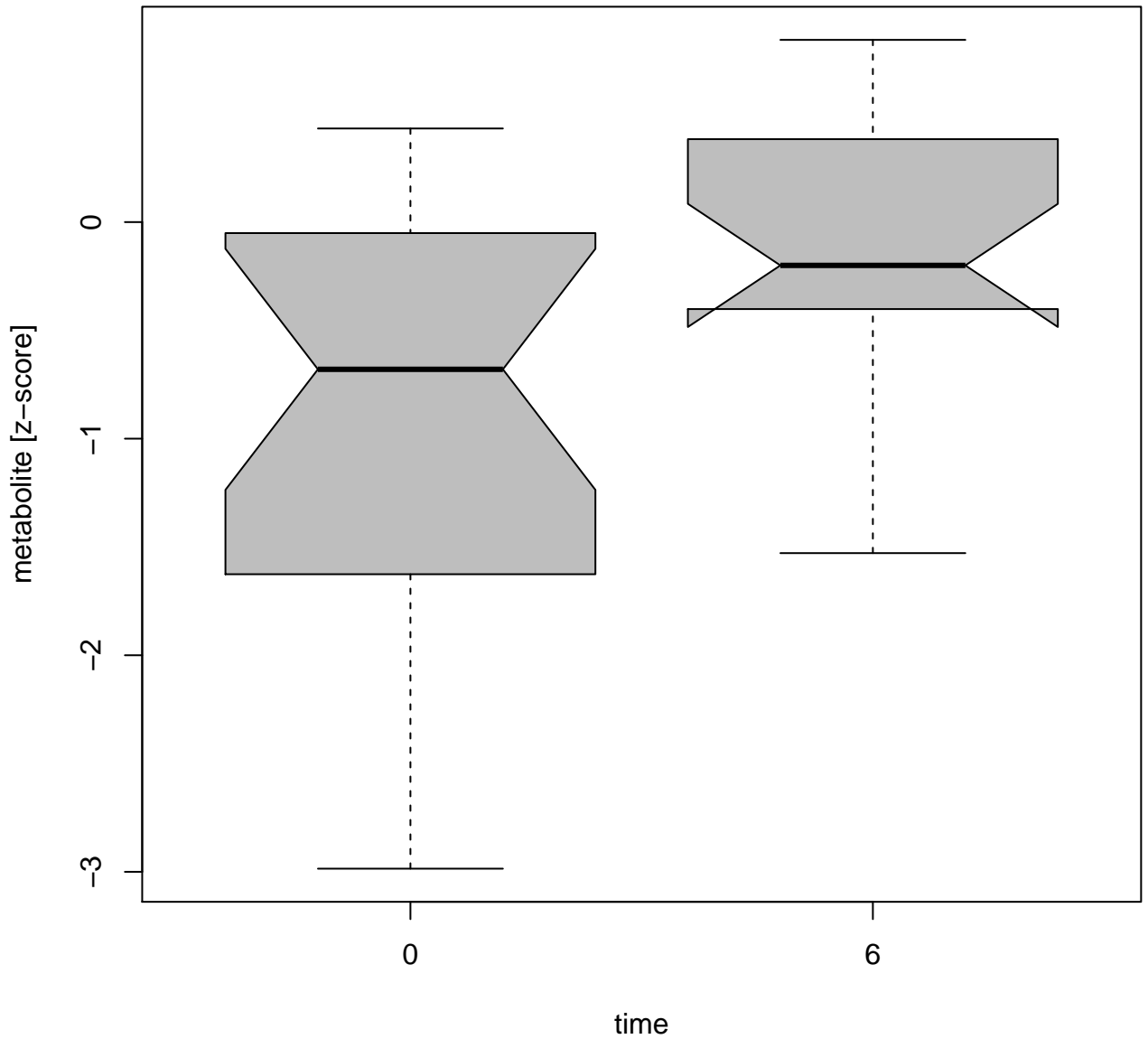
HCT15

**N-acetylglutamate**

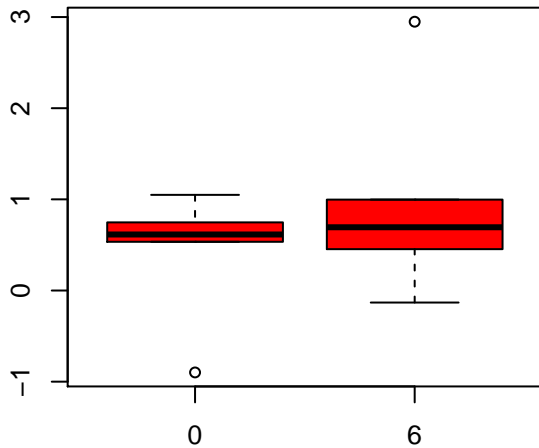


SKOV3

# N-acetylglutamate

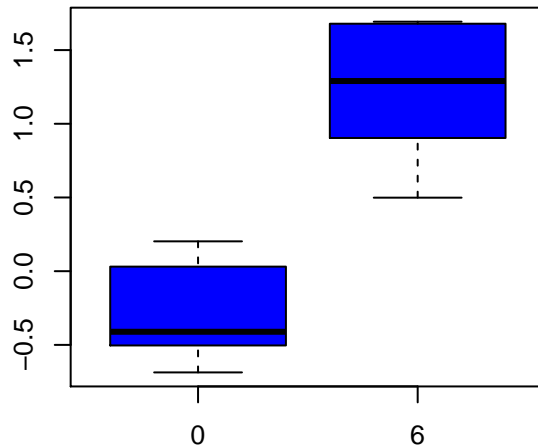


**N-acetylneuraminate**



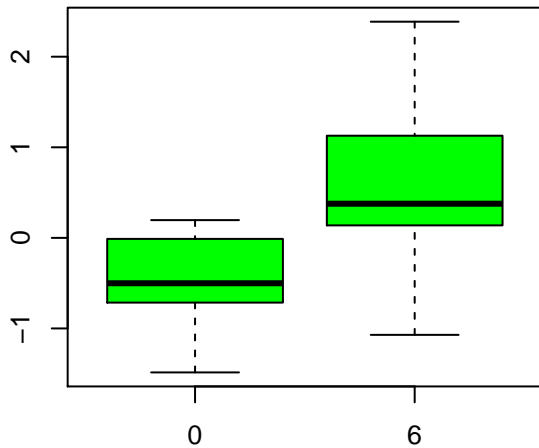
HCT116

**N-acetylneuraminate**



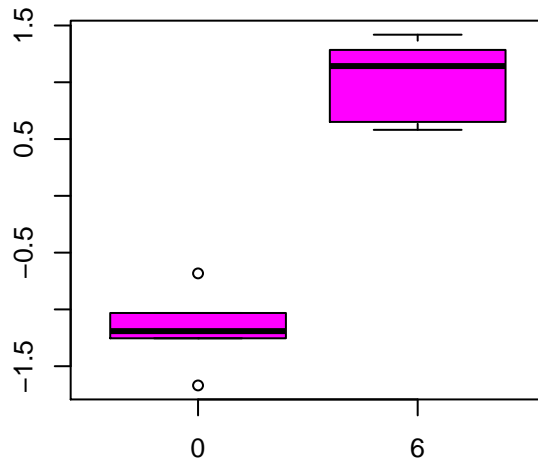
OVCAR

**N-acetylneuraminate**



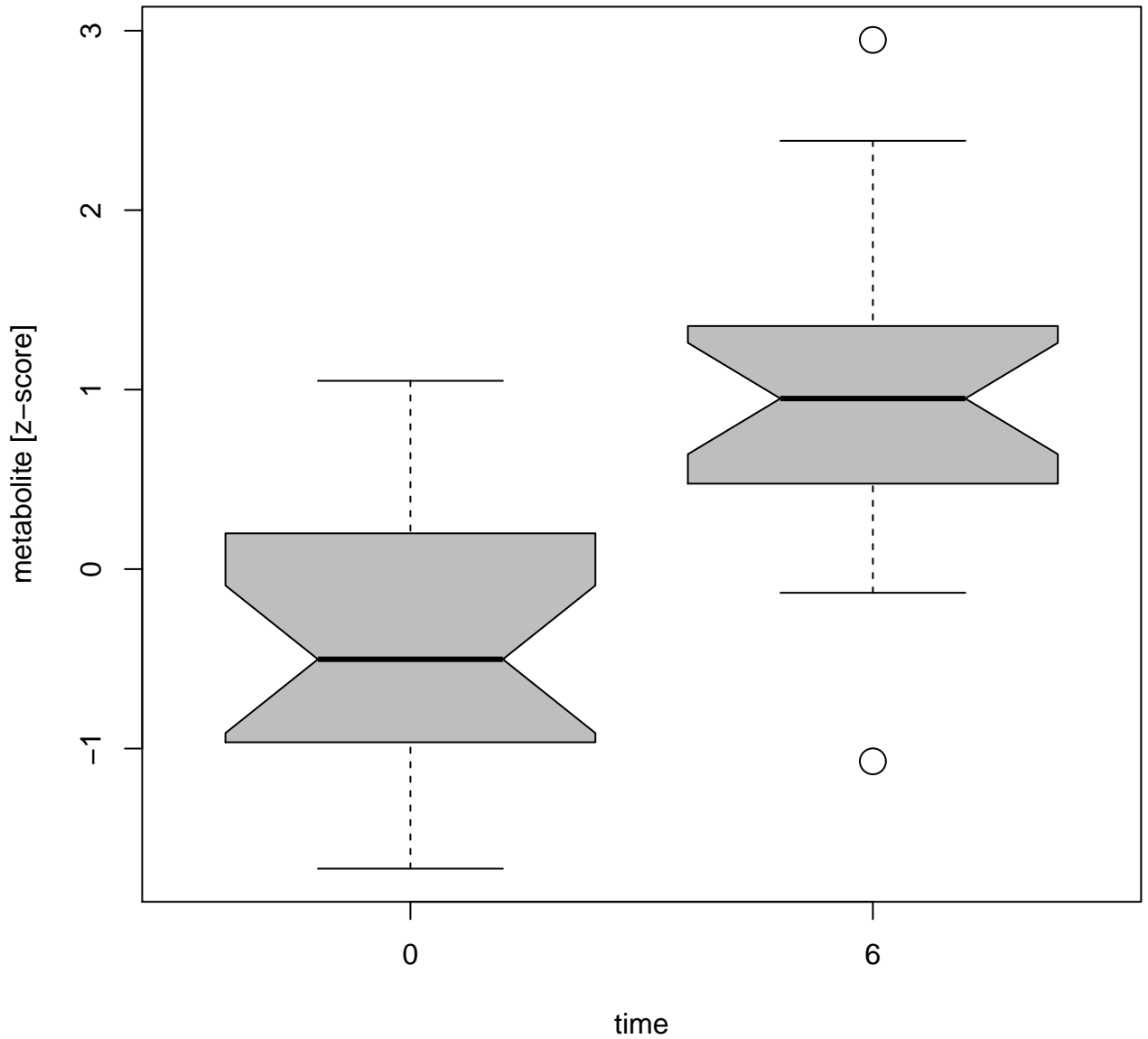
HCT15

**N-acetylneuraminate**

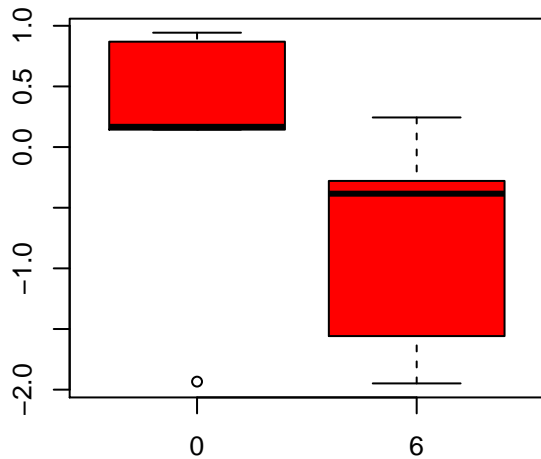


SKOV3

# N-acetylneuraminate

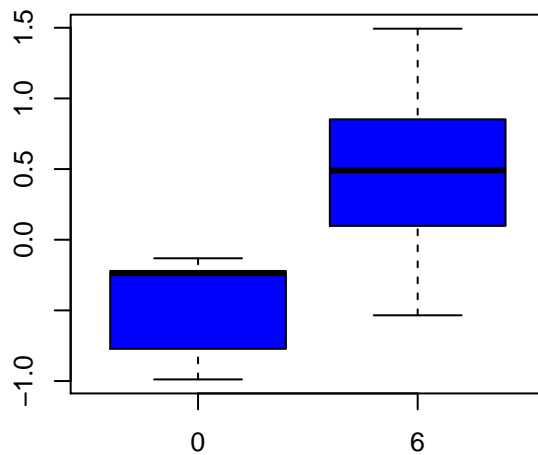


**N-acetylserine**



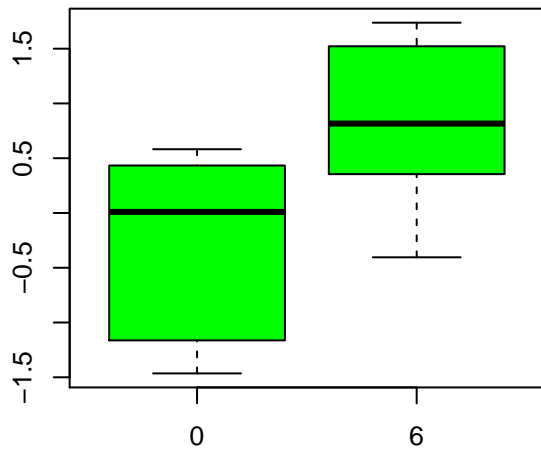
HCT116

**N-acetylserine**



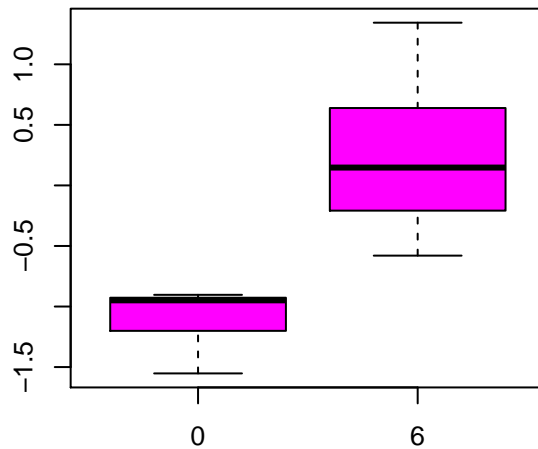
OVCAR

**N-acetylserine**



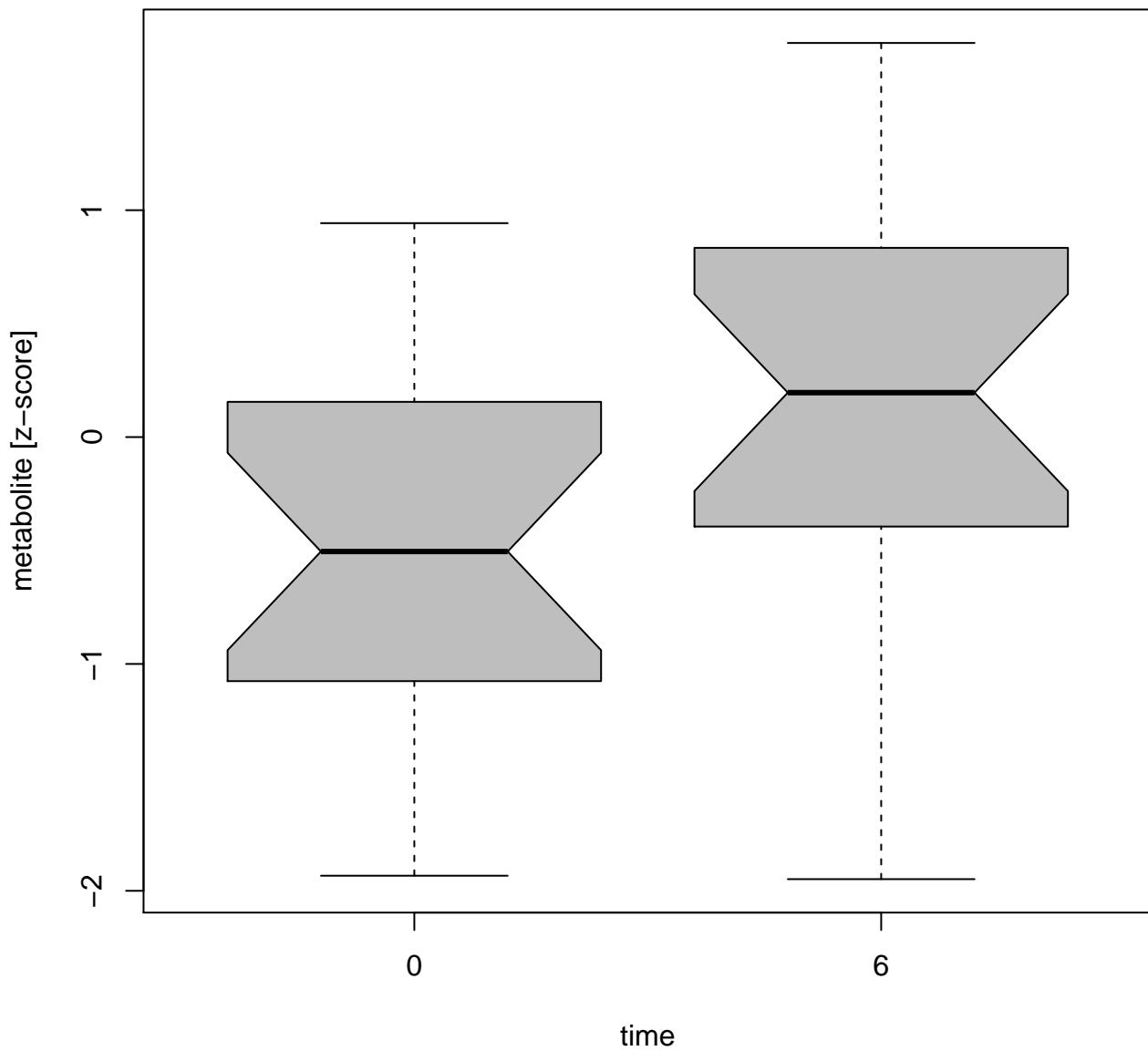
HCT15

**N-acetylserine**

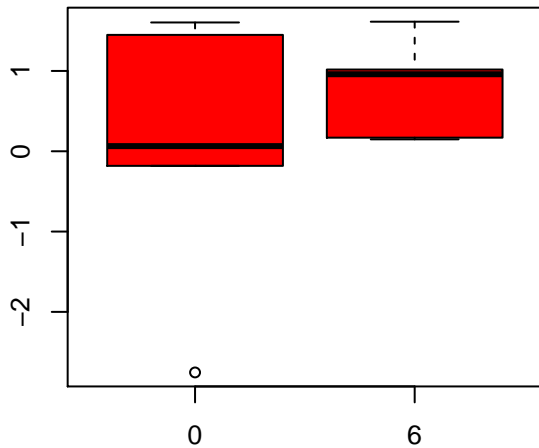


SKOV3

# N-acetylserine

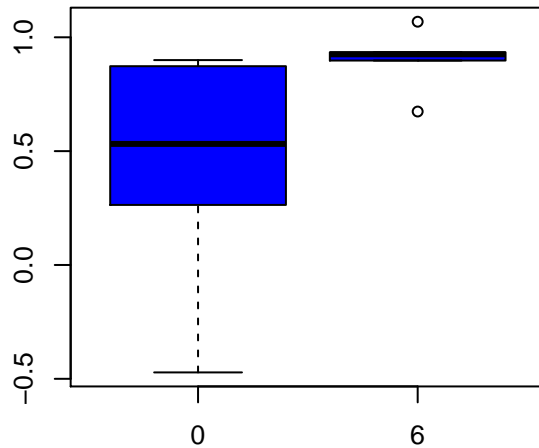


**nicotinamide**



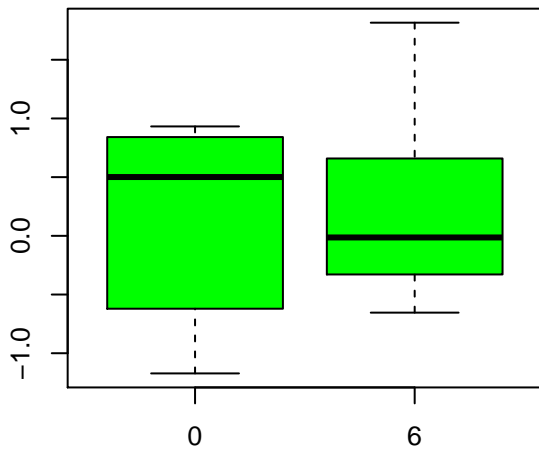
HCT116

**nicotinamide**



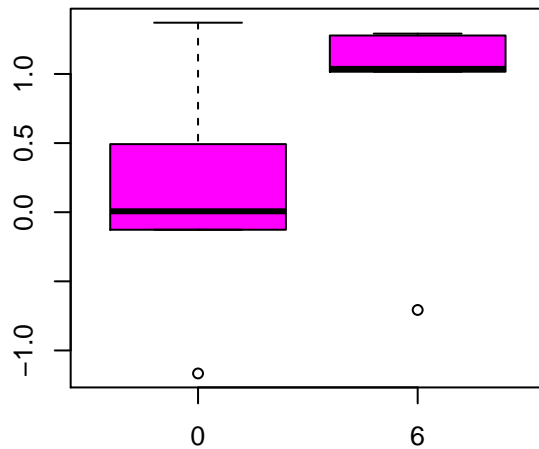
OVCAR

**nicotinamide**



HCT15

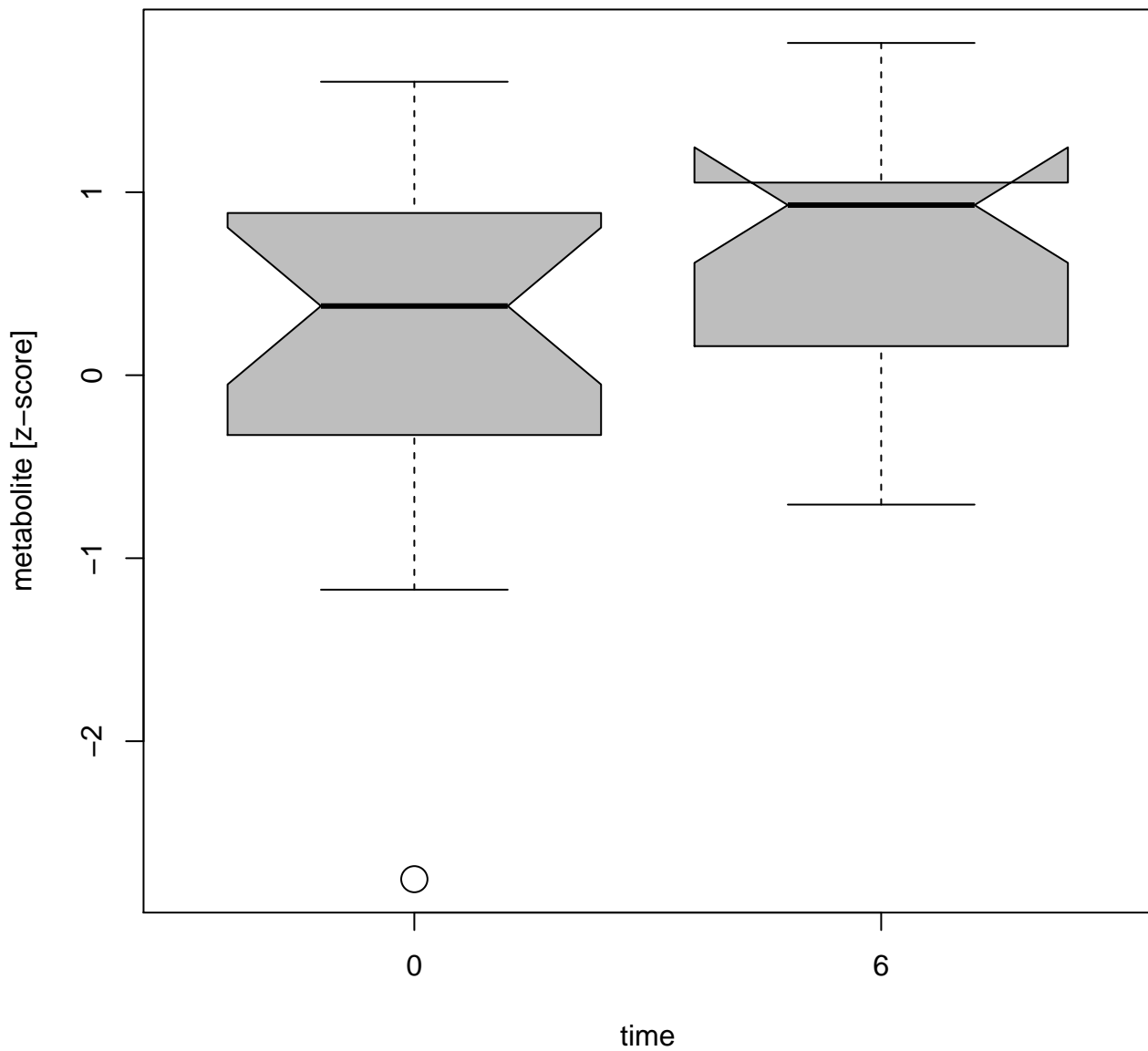
**nicotinamide**



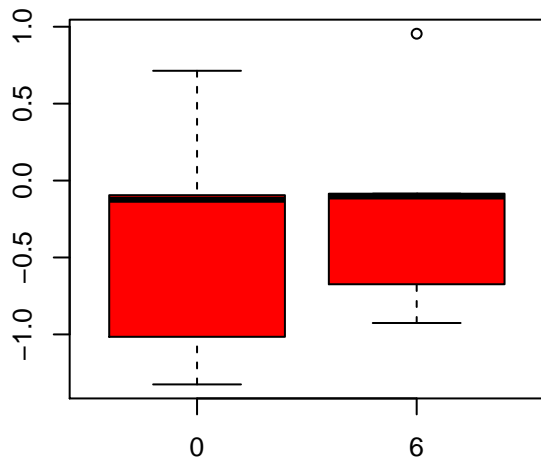
SKOV3



# nicotinamide

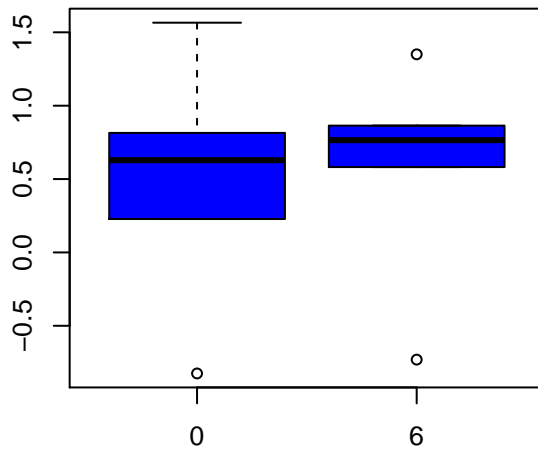


nicotinamide adenine dinucleotide (NAD<sup>+</sup>)



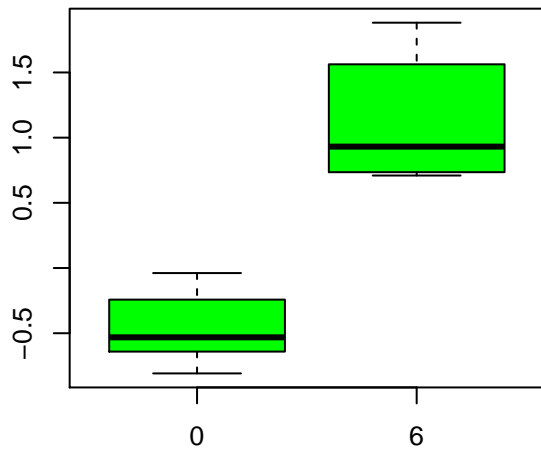
HCT116

nicotinamide adenine dinucleotide (NAD<sup>+</sup>)



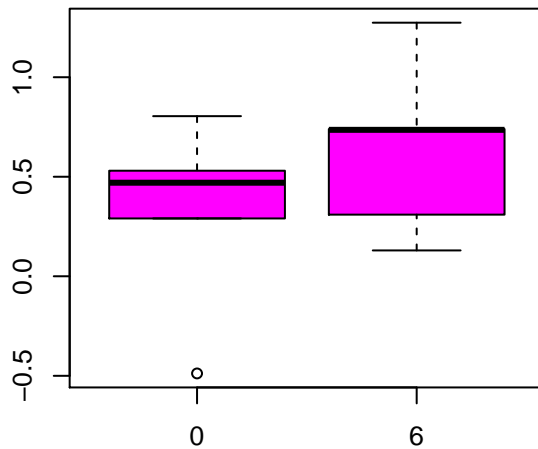
OVCAR

nicotinamide adenine dinucleotide (NAD<sup>+</sup>)



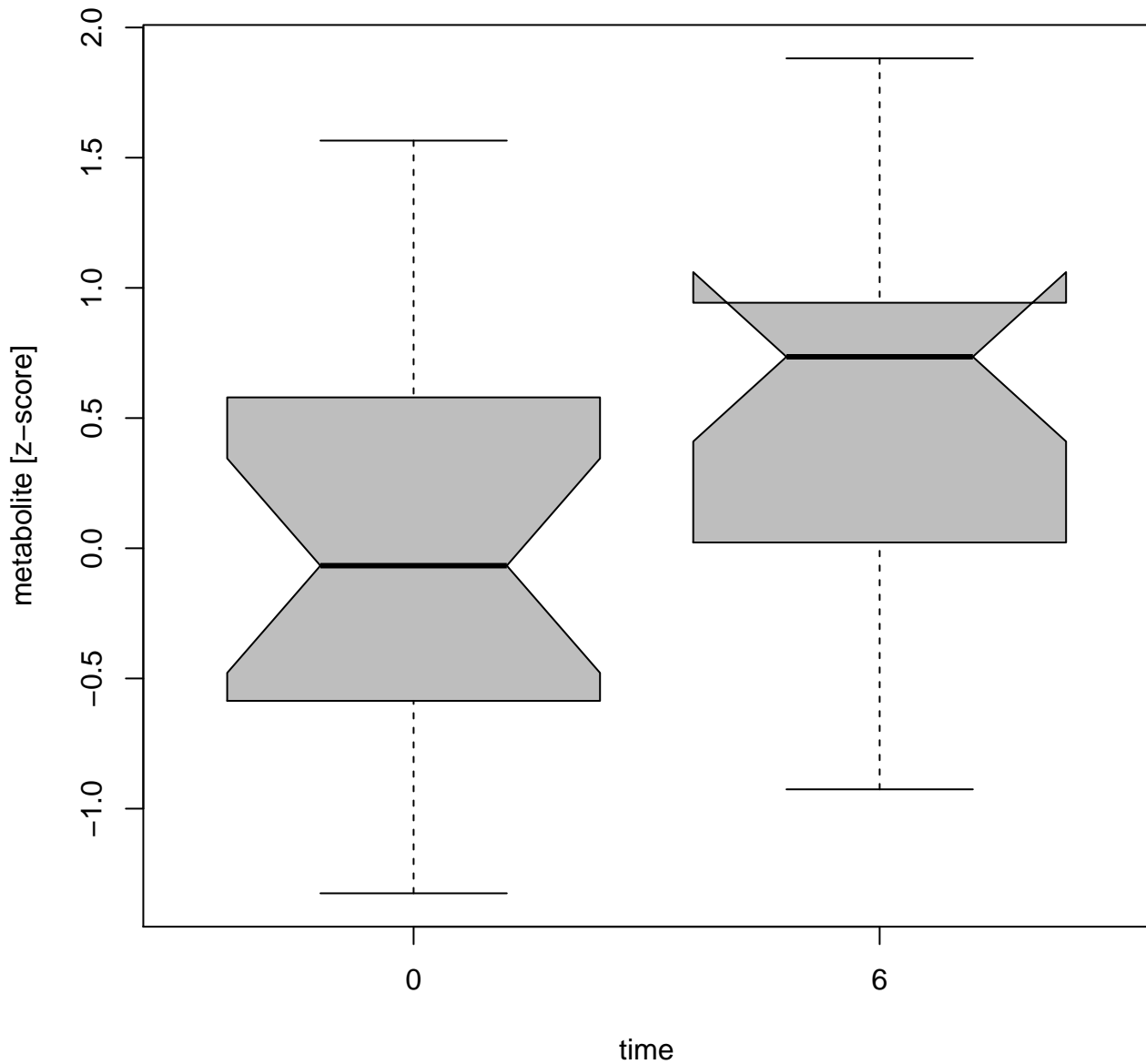
HCT15

nicotinamide adenine dinucleotide (NAD<sup>+</sup>)

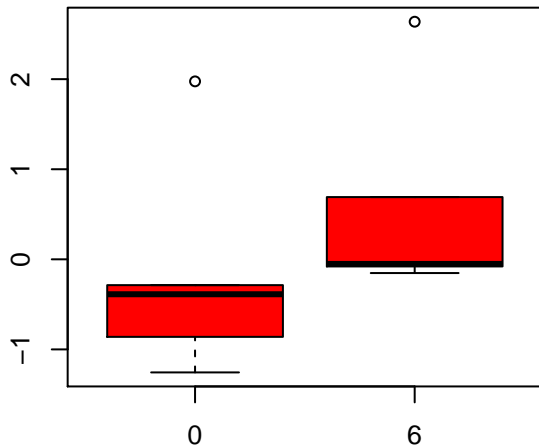


SKOV3

# nicotinamide adenine dinucleotide (NAD<sup>+</sup>)

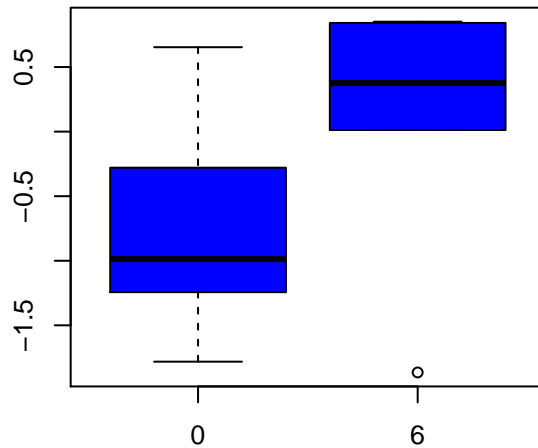


**oleate (18:1n9)**



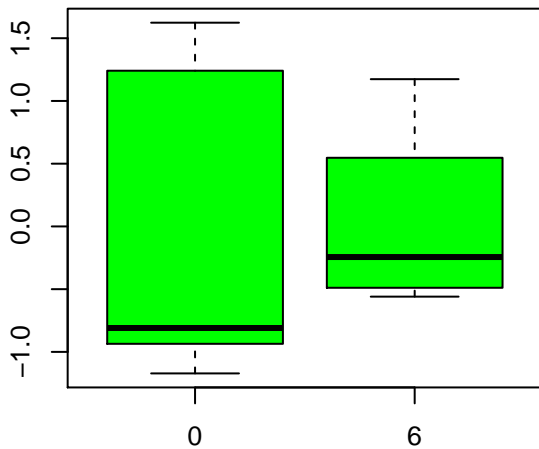
HCT116

**oleate (18:1n9)**



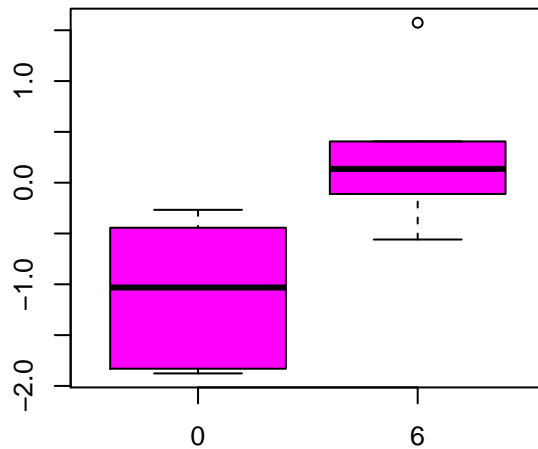
OVCAR

**oleate (18:1n9)**



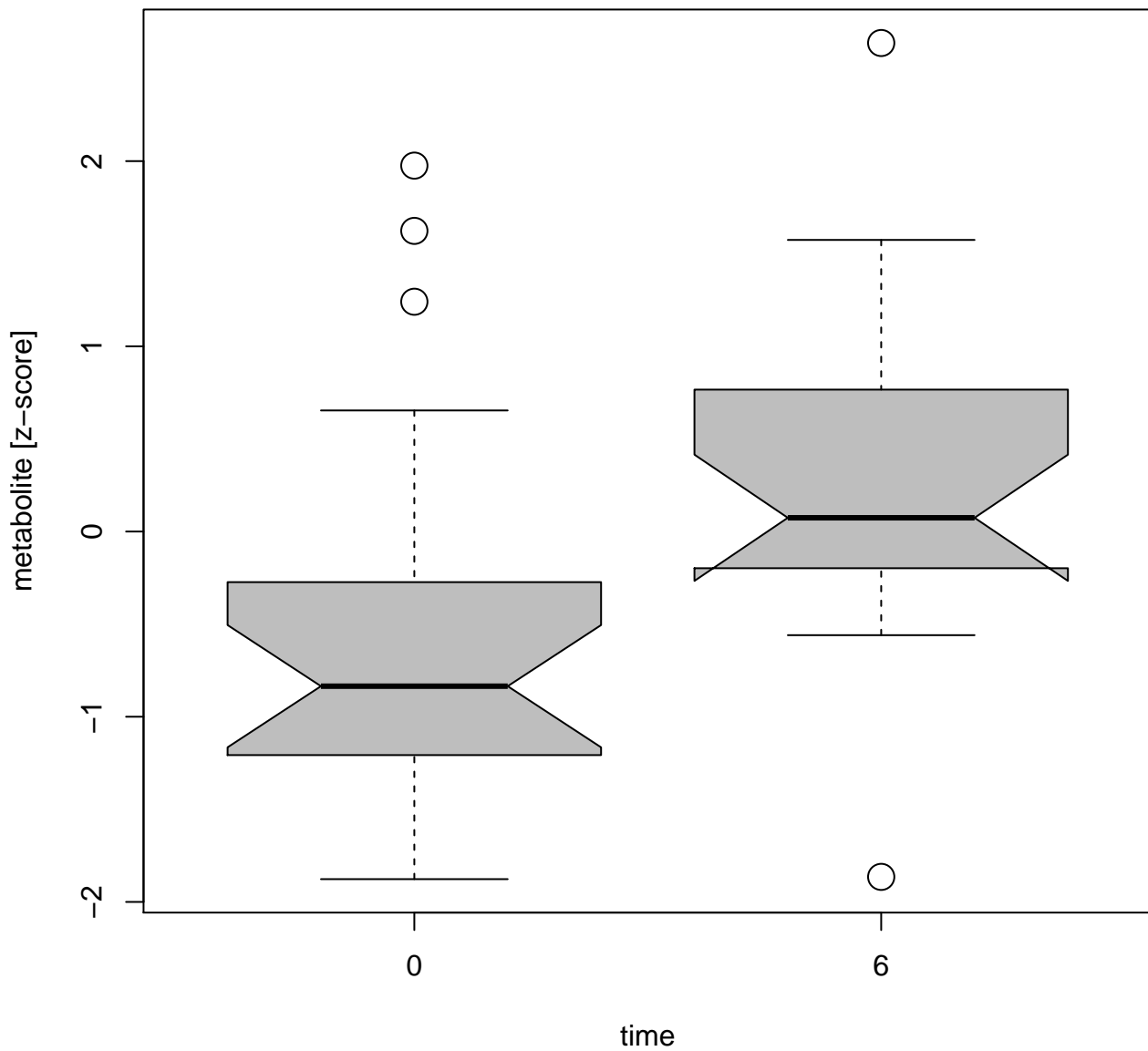
HCT15

**oleate (18:1n9)**

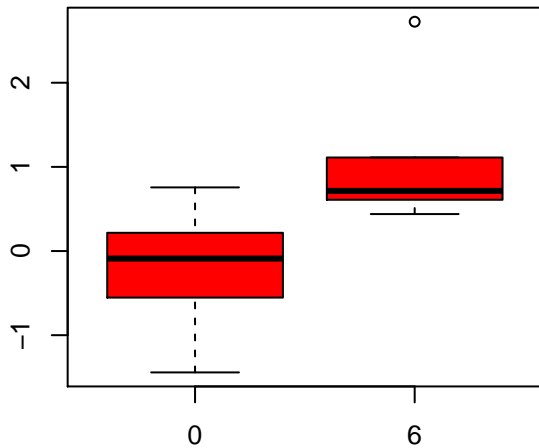


SKOV3

# oleate (18:1n9)

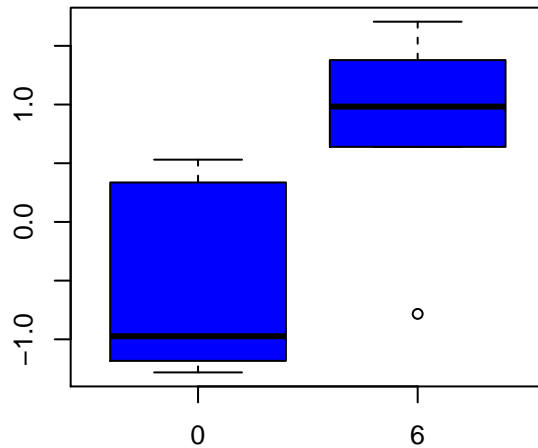


**palmitoleate (16:1n7)**



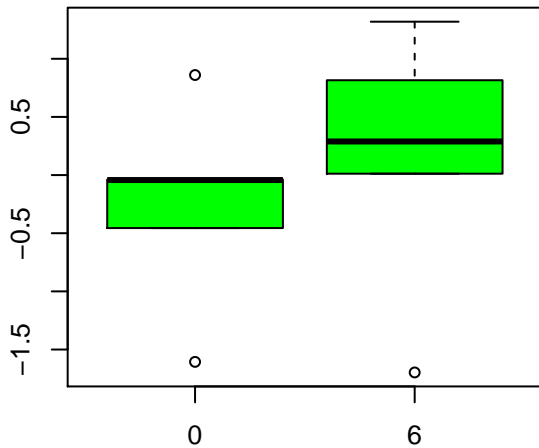
HCT116

**palmitoleate (16:1n7)**



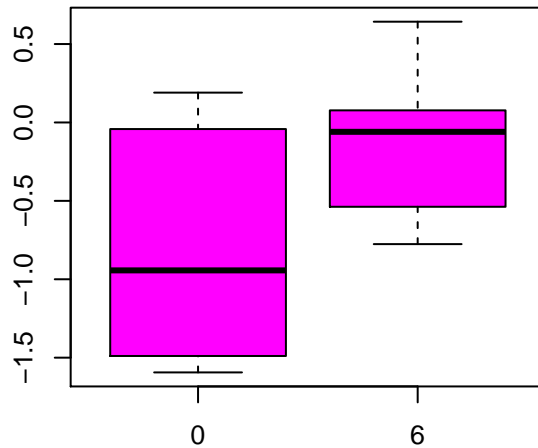
OVCAR

**palmitoleate (16:1n7)**



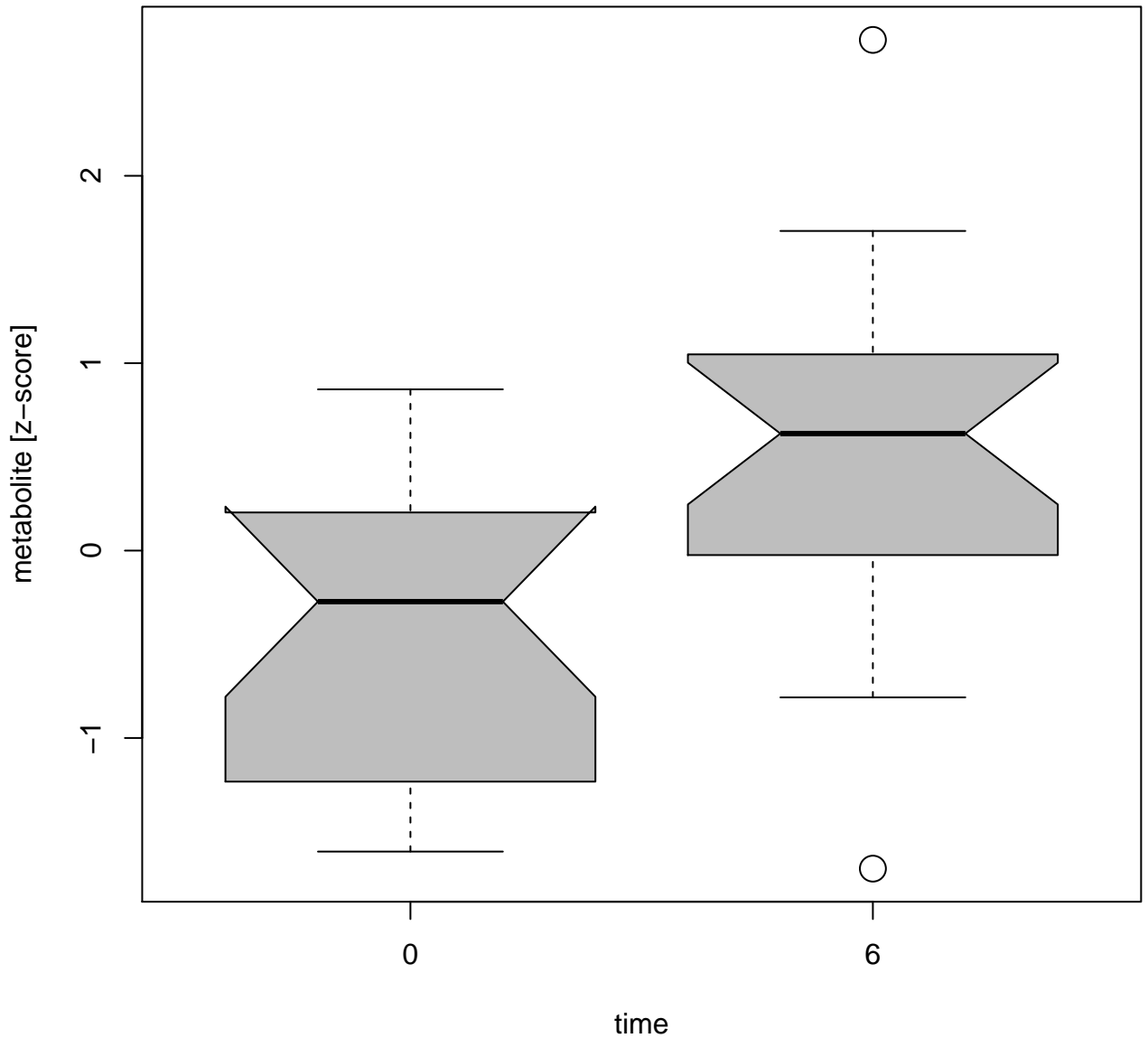
HCT15

**palmitoleate (16:1n7)**

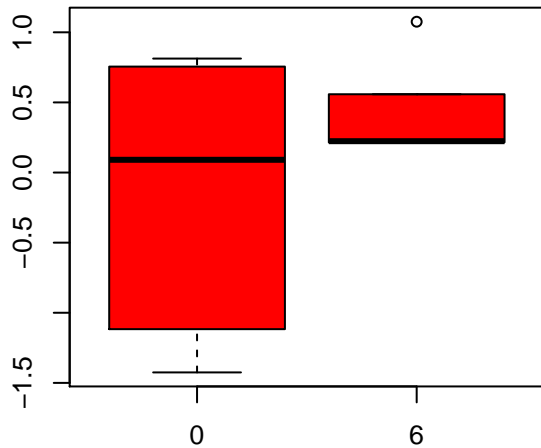


SKOV3

# palmitoleate (16:1n7)

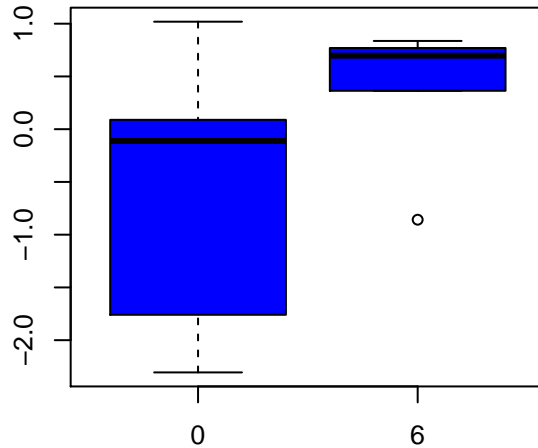


**palmitoyl sphingomyelin**



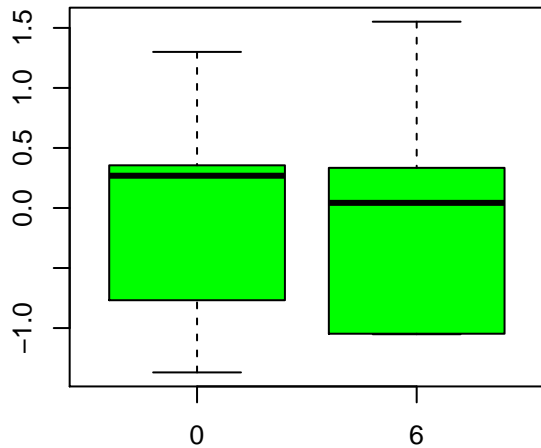
HCT116

**palmitoyl sphingomyelin**



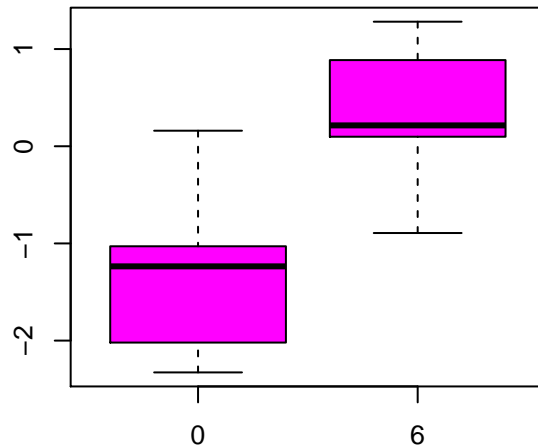
OVCAR

**palmitoyl sphingomyelin**



HCT15

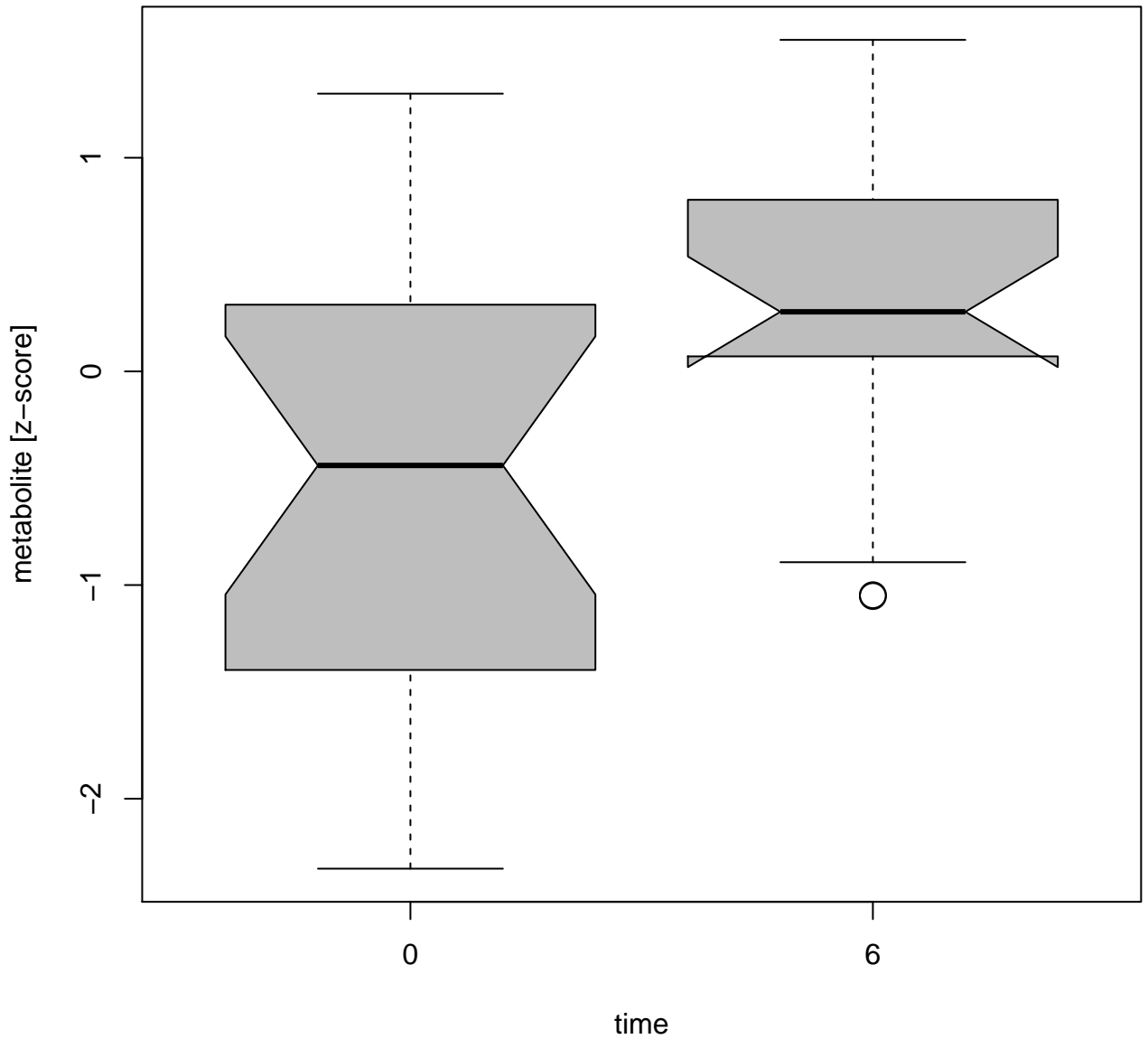
**palmitoyl sphingomyelin**



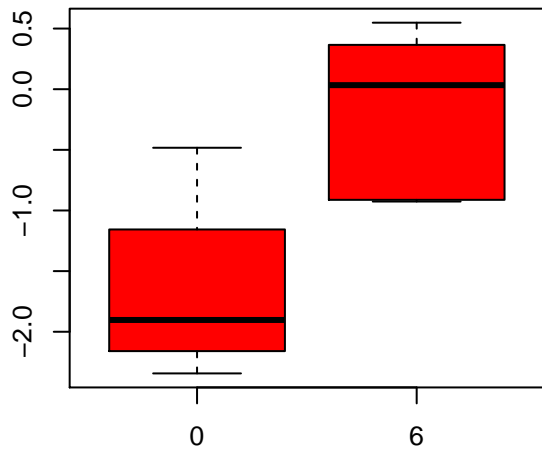
SKOV3



# palmitoyl sphingomyelin

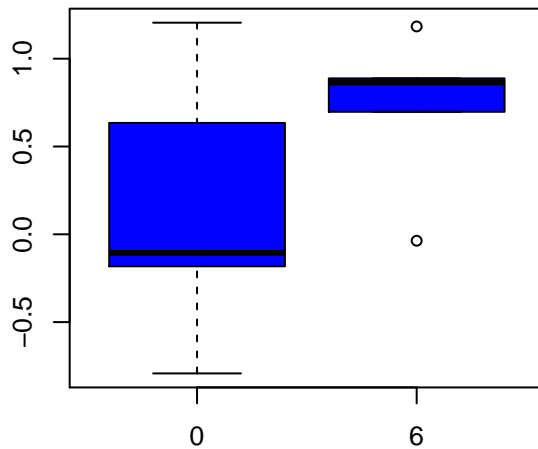


**pantothenate**



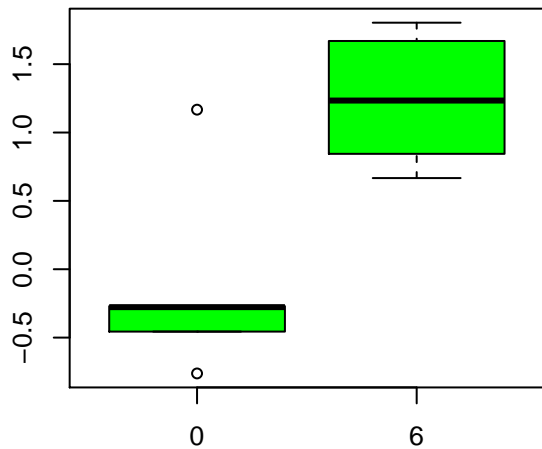
HCT116

**pantothenate**



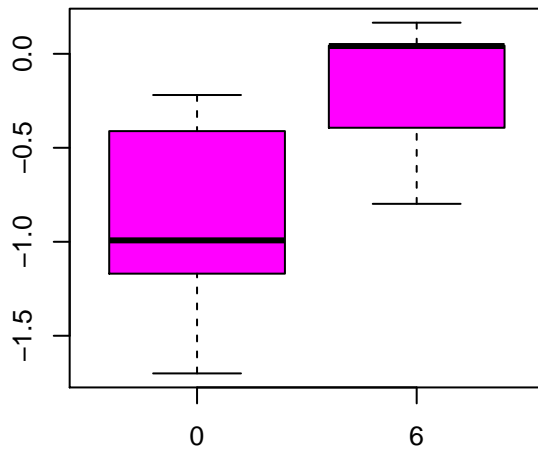
OVCAR

**pantothenate**



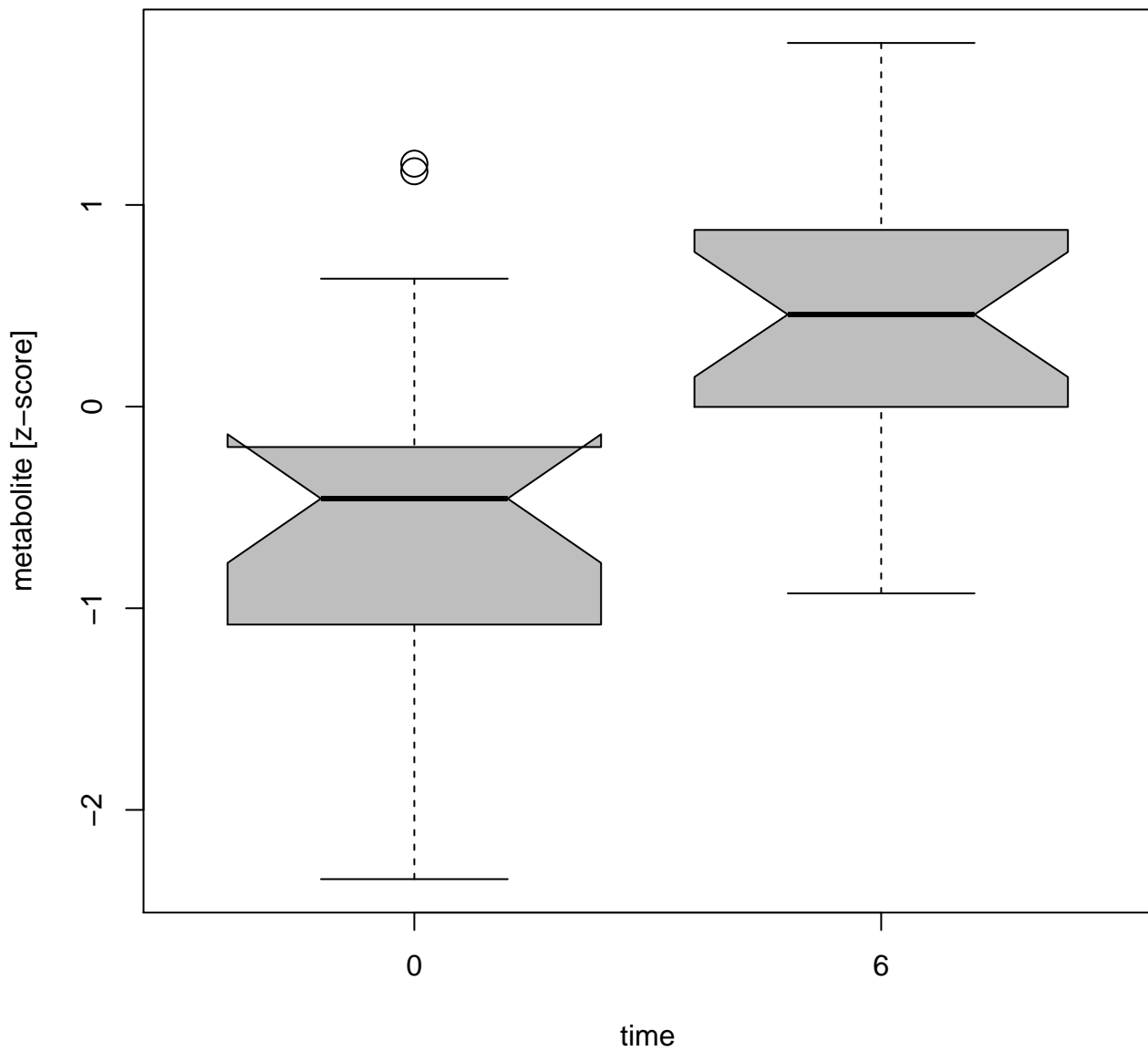
HCT15

**pantothenate**

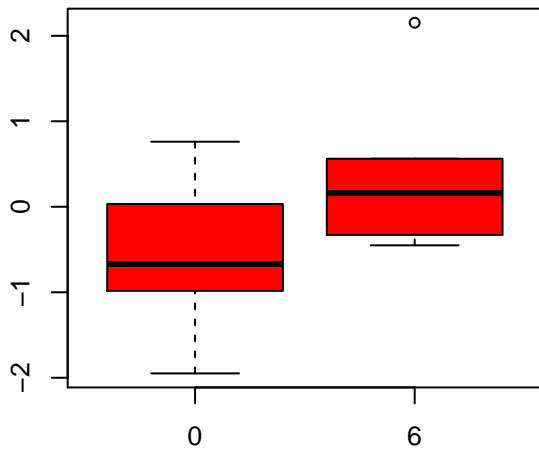


SKOV3

# pantothenate

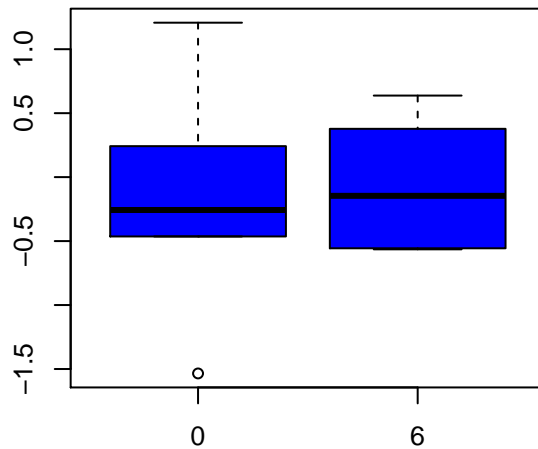


**phenylalanine**



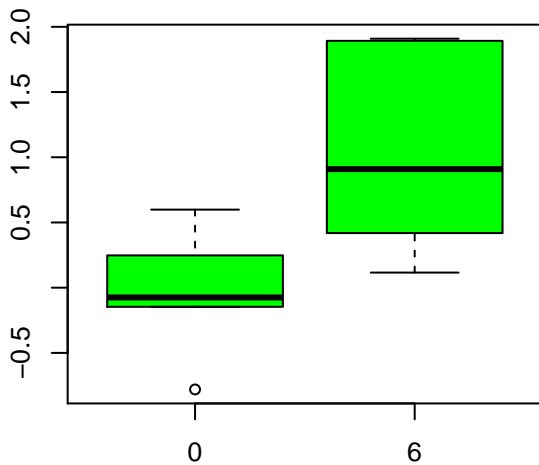
HCT116

**phenylalanine**



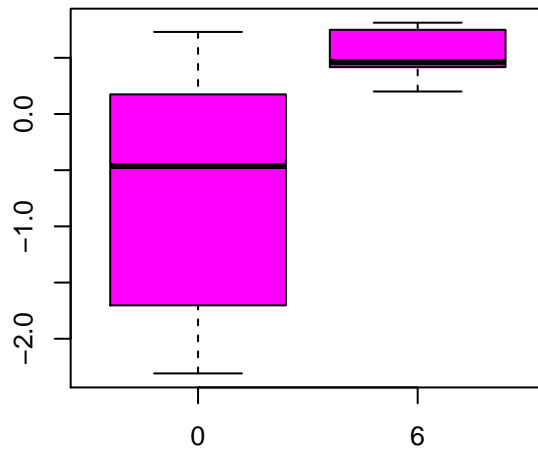
OVCAR

**phenylalanine**



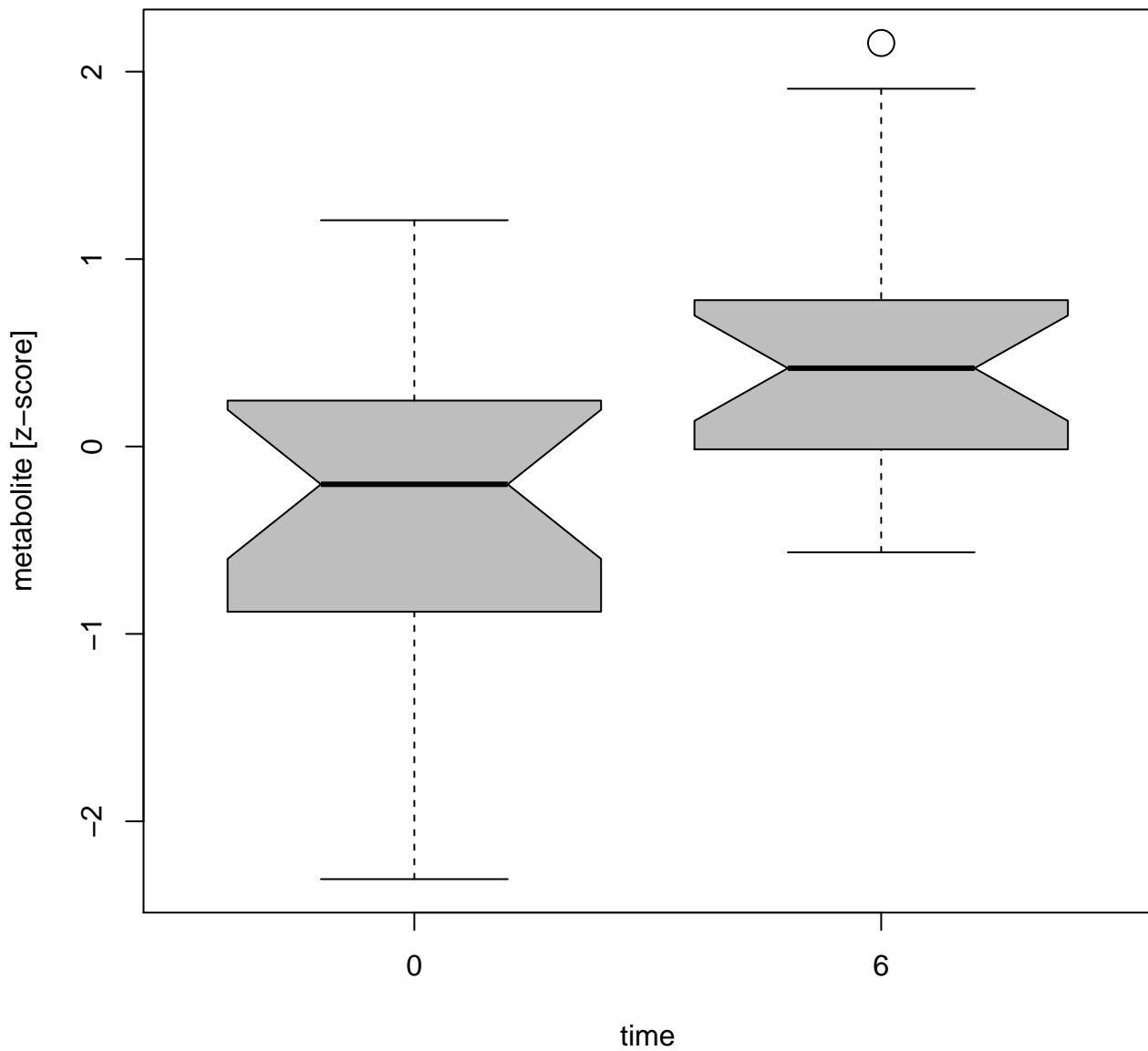
HCT15

**phenylalanine**

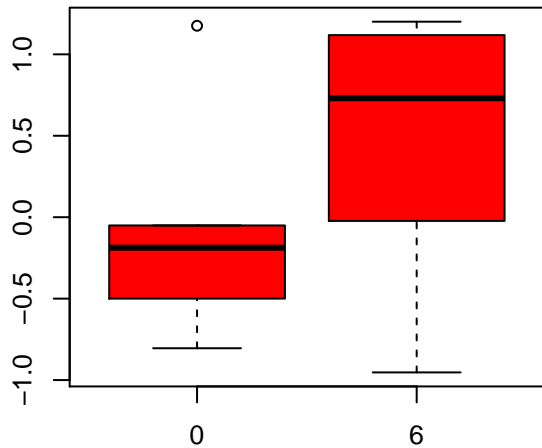


SKOV3

# phenylalanine

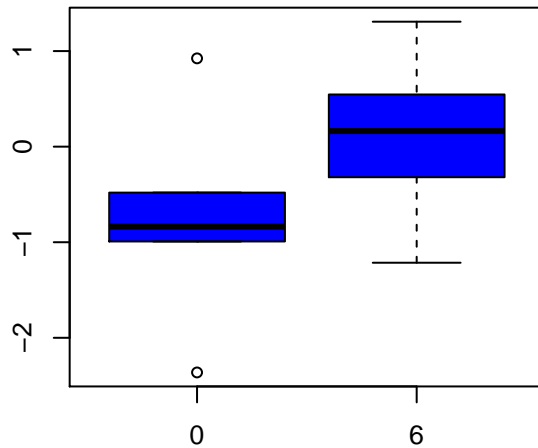


**phenylalanylglutamate**



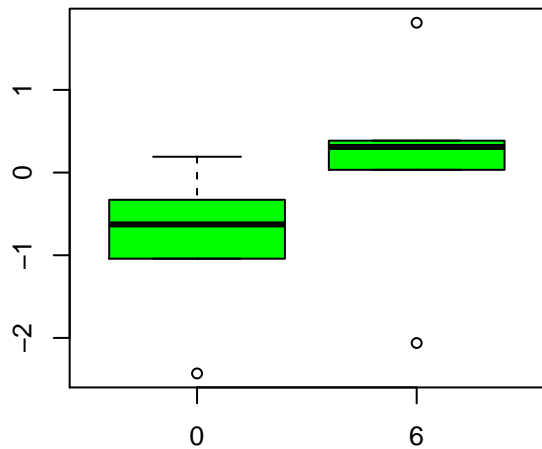
HCT116

**phenylalanylglutamate**



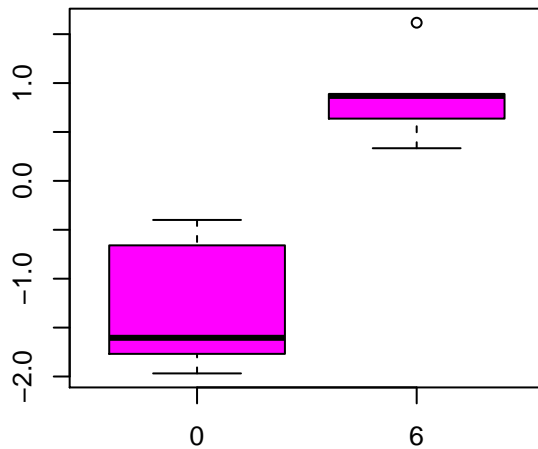
OVCAR

**phenylalanylglutamate**



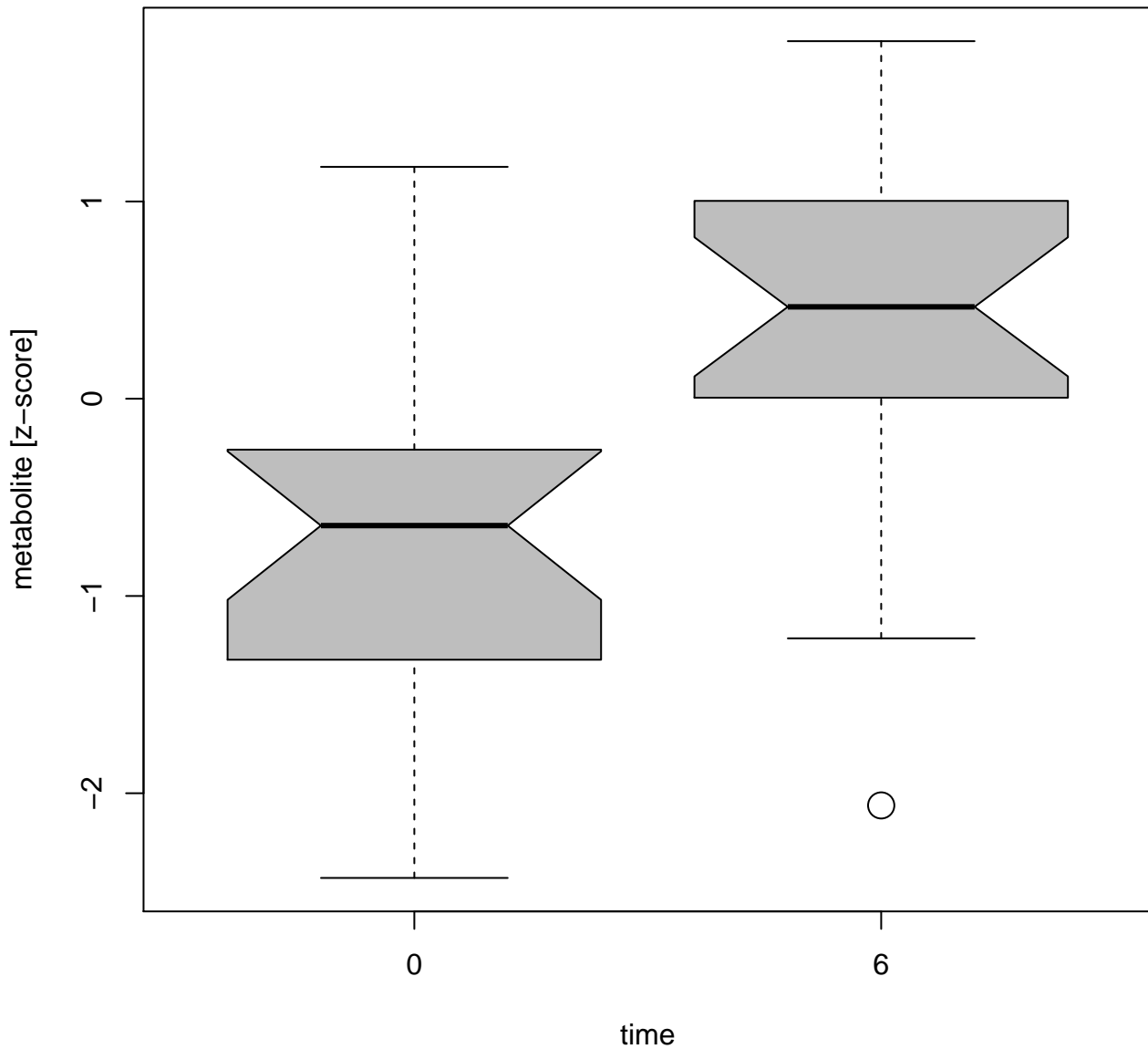
HCT15

**phenylalanylglutamate**

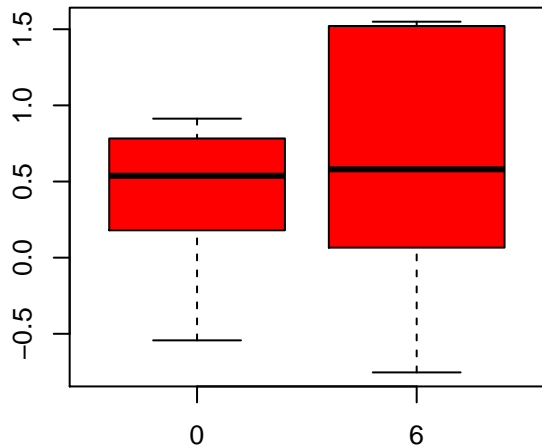


SKOV3

# phenylalanylglutamate

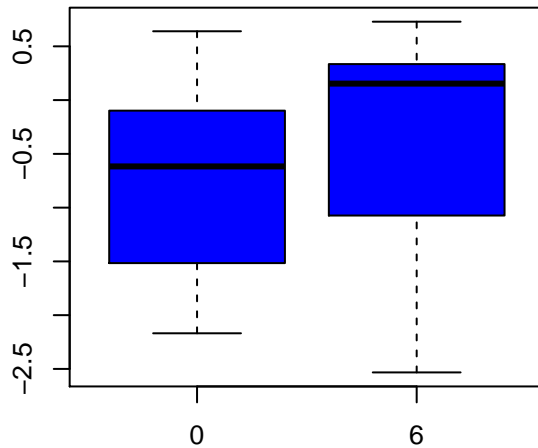


**phenylalanylglycine**



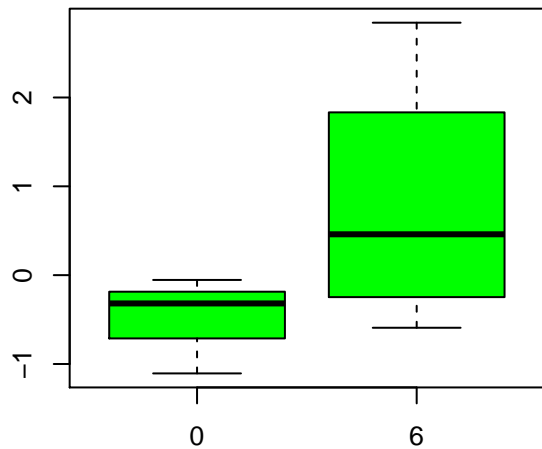
HCT116

**phenylalanylglycine**



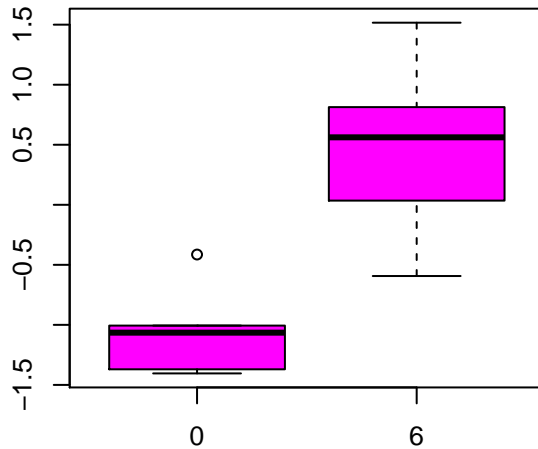
OVCAR

**phenylalanylglycine**



HCT15

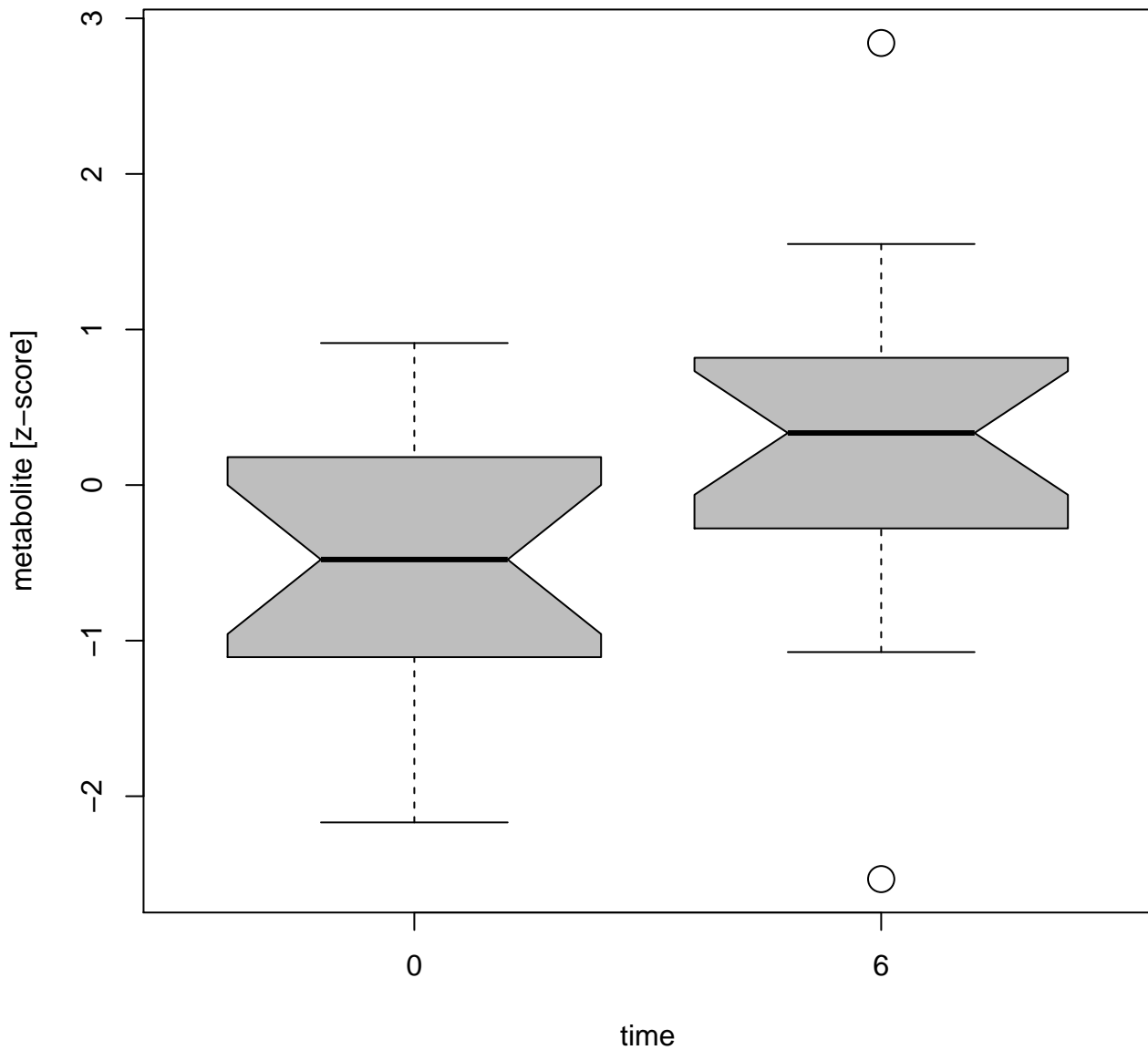
**phenylalanylglycine**



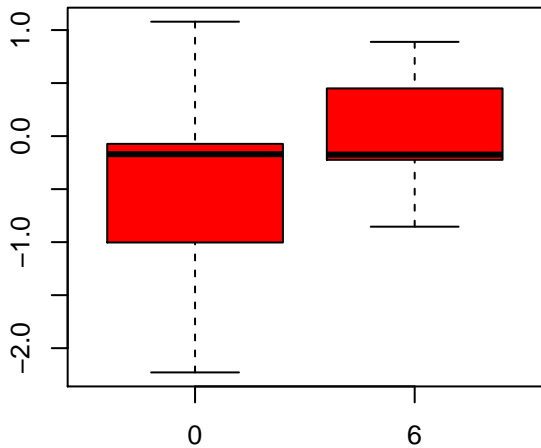
SKOV3



# phenylalanylglycine

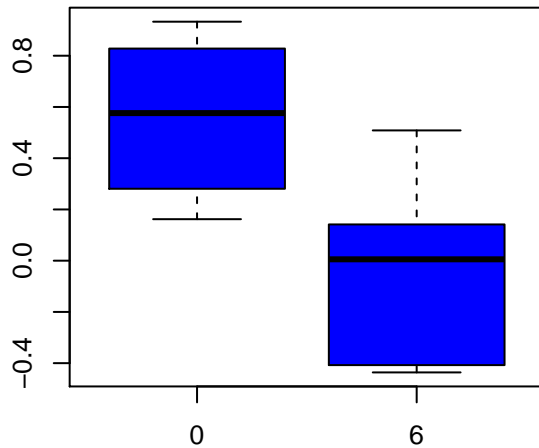


**phosphate**



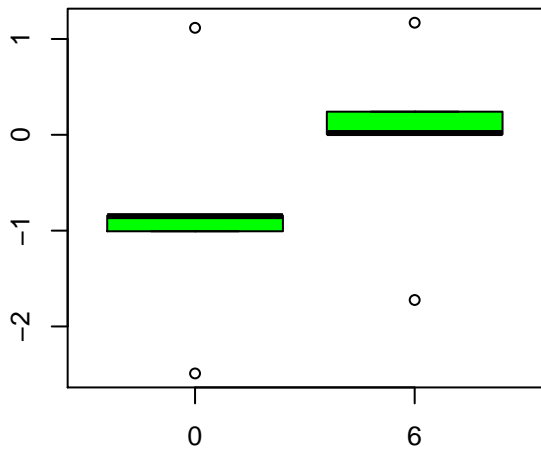
HCT116

**phosphate**



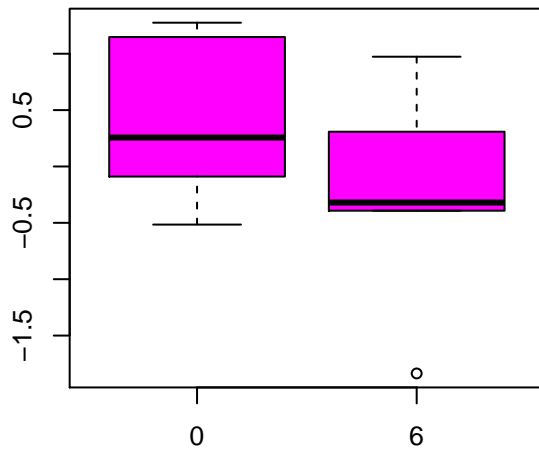
OVCAR

**phosphate**



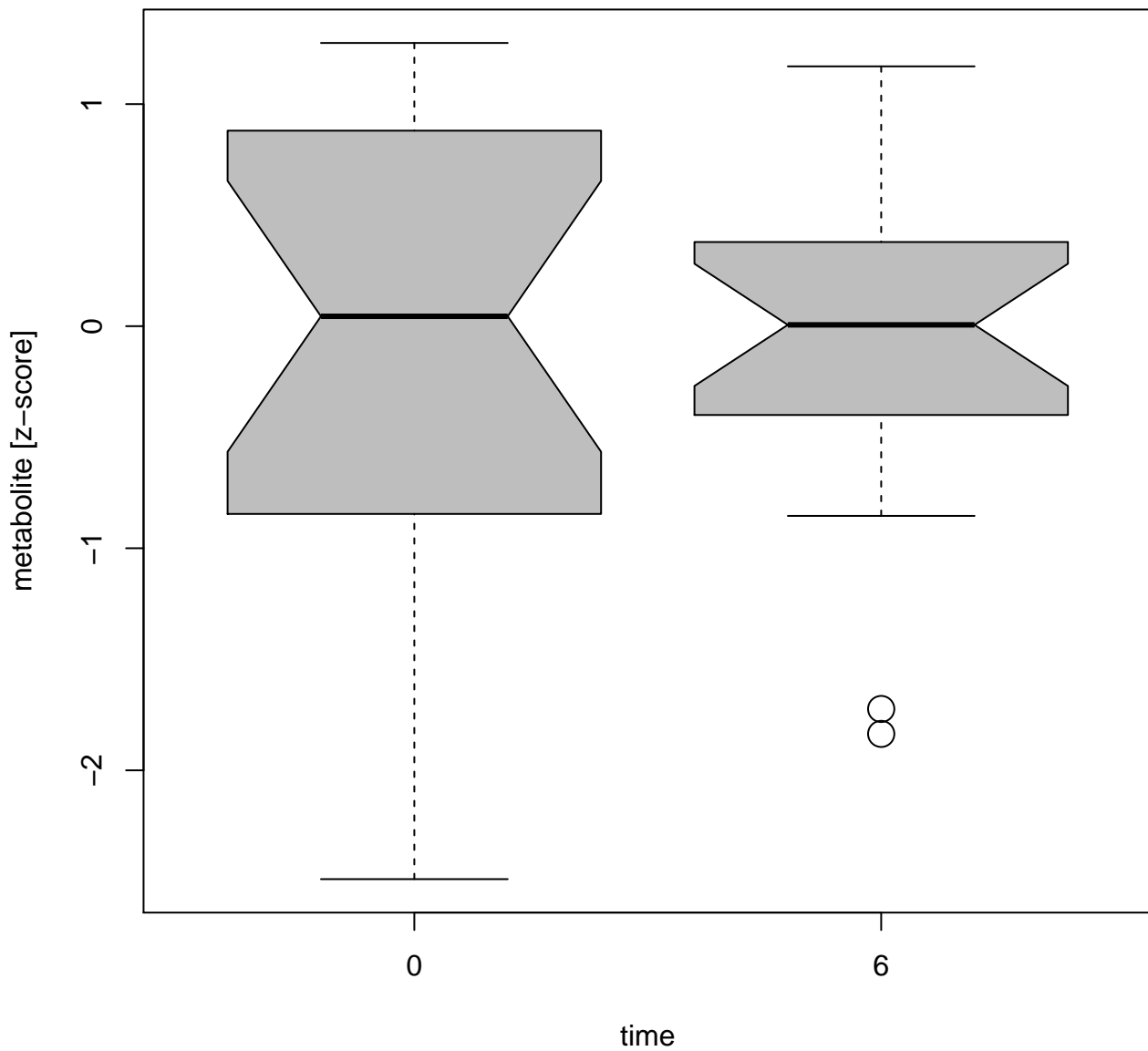
HCT15

**phosphate**

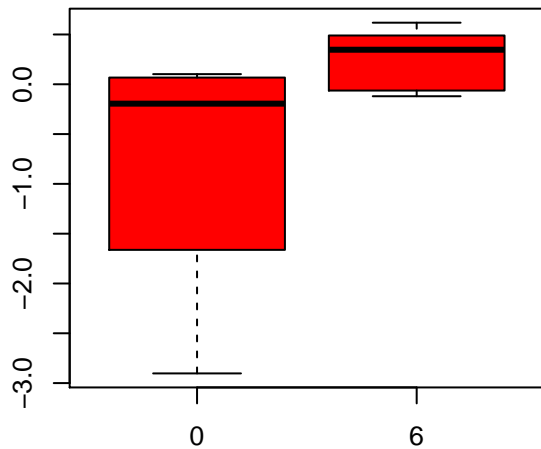


SKOV3

# phosphate

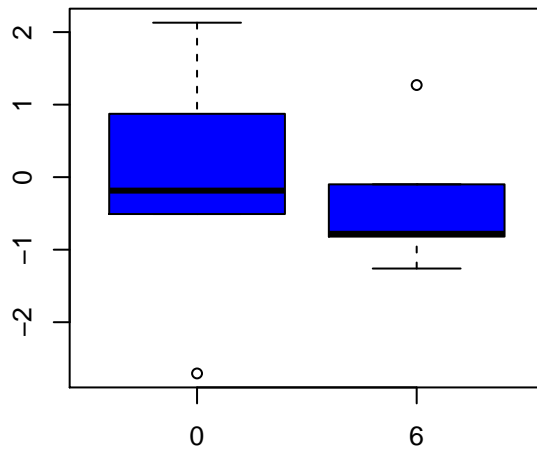


**pipecolate**



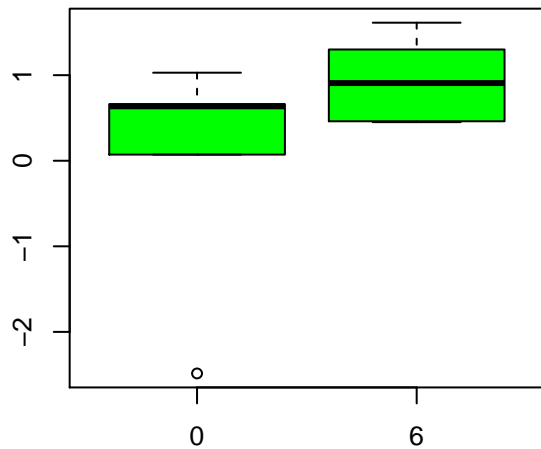
HCT116

**pipecolate**



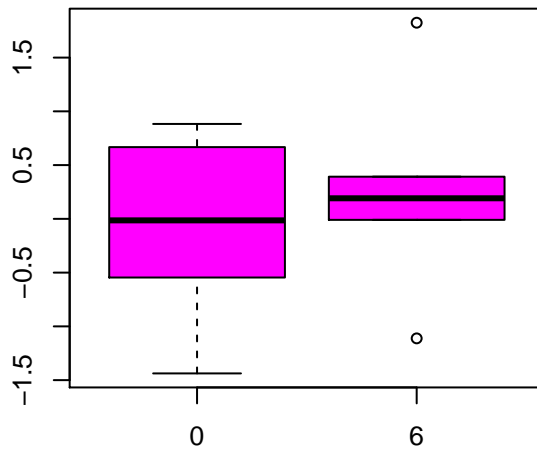
OVCAR

**pipecolate**



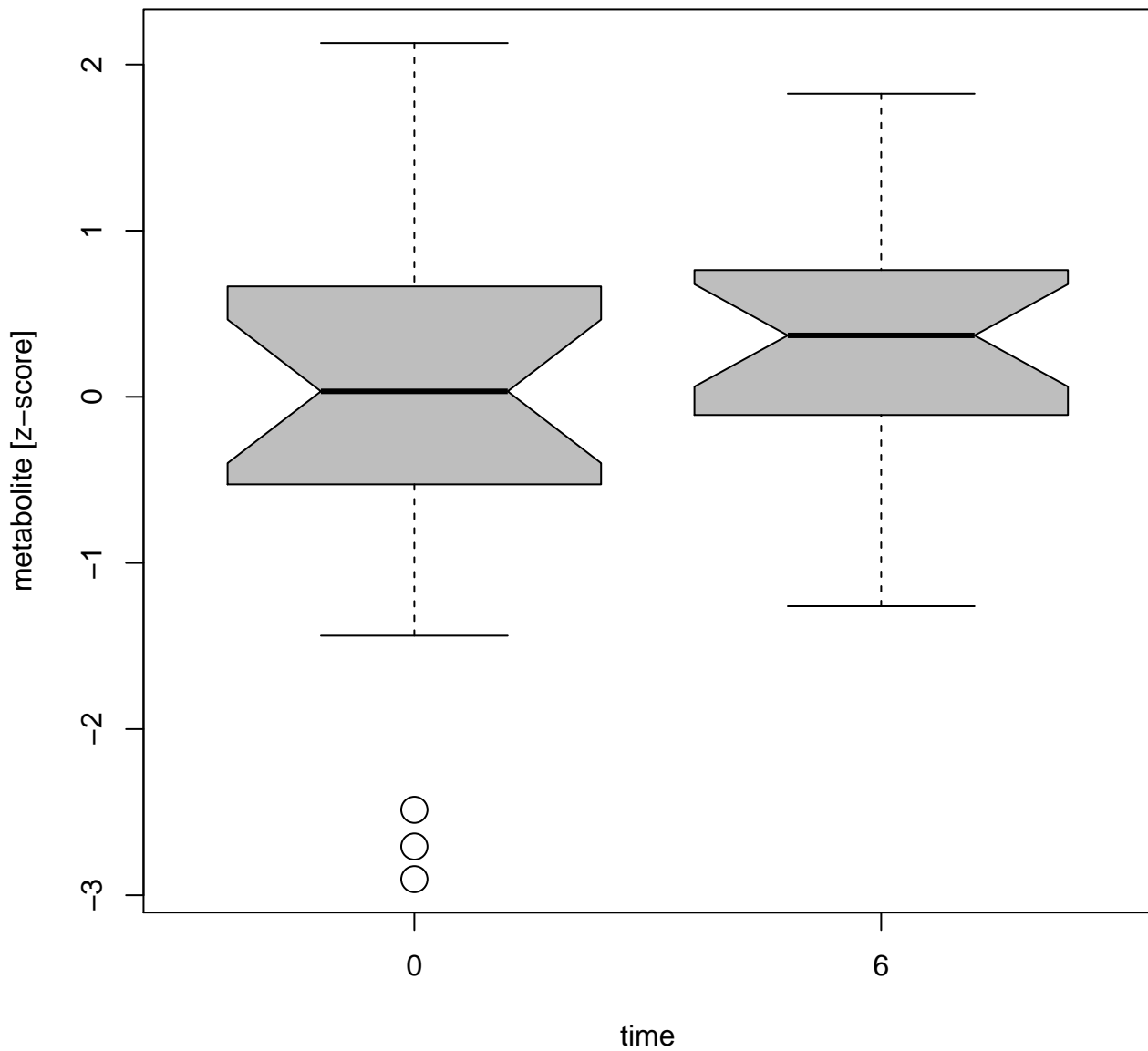
HCT15

**pipecolate**

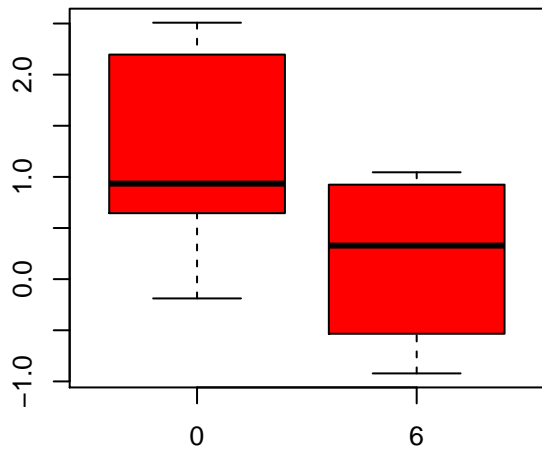


SKOV3

# pipecolate

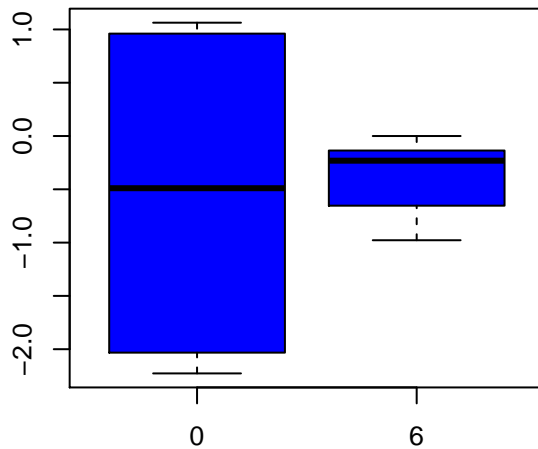


**pro-hydroxy-pro**



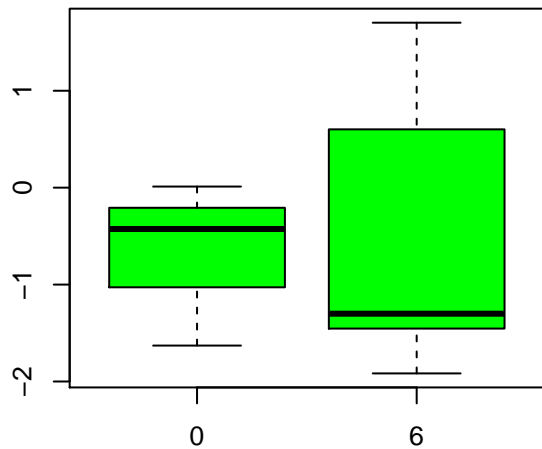
HCT116

**pro-hydroxy-pro**



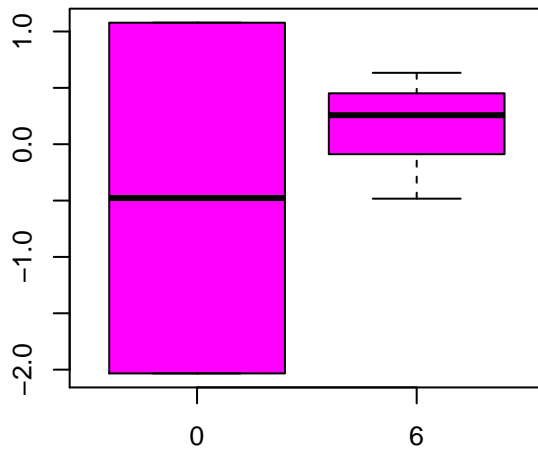
OVCAR

**pro-hydroxy-pro**



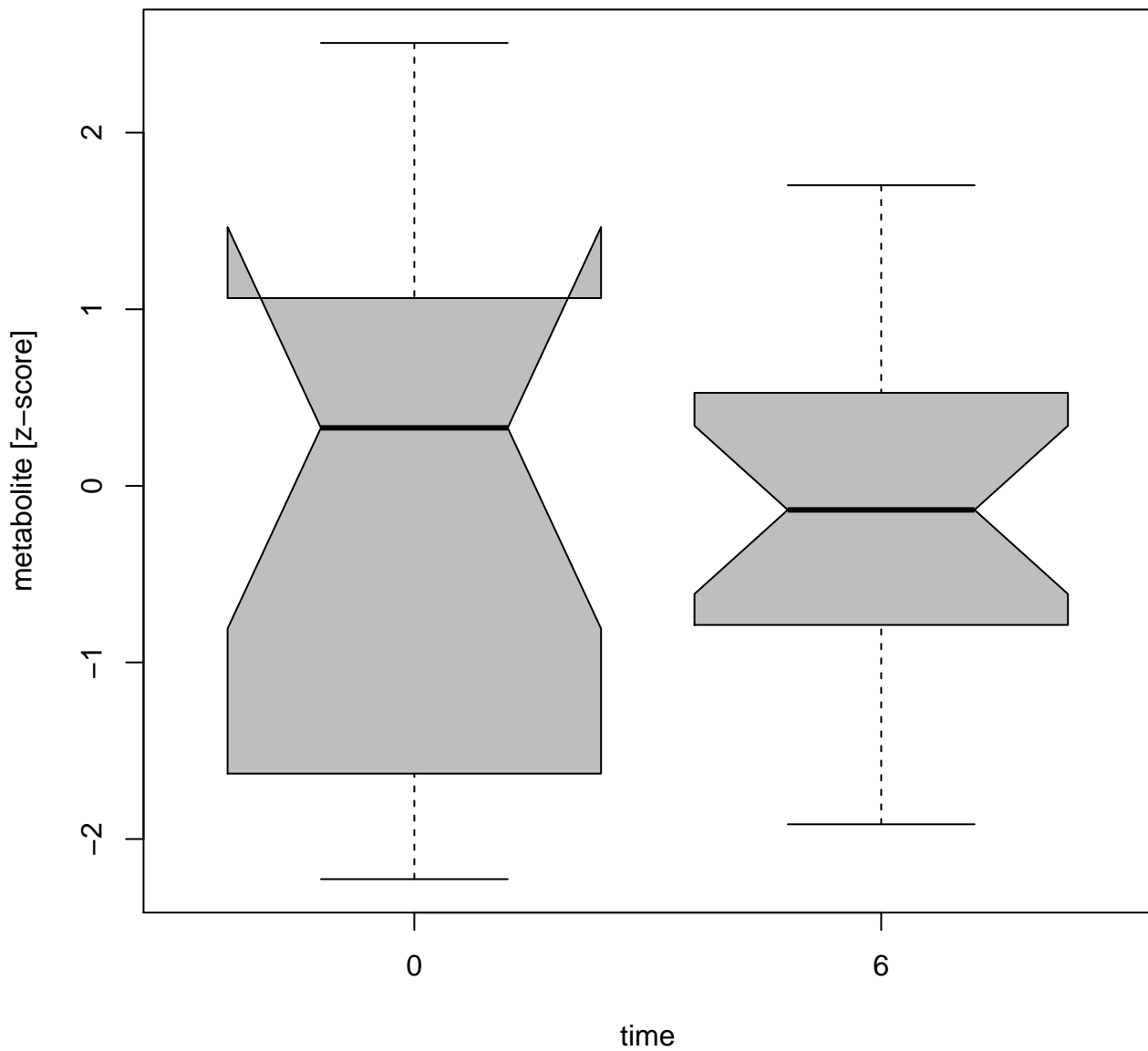
HCT15

**pro-hydroxy-pro**

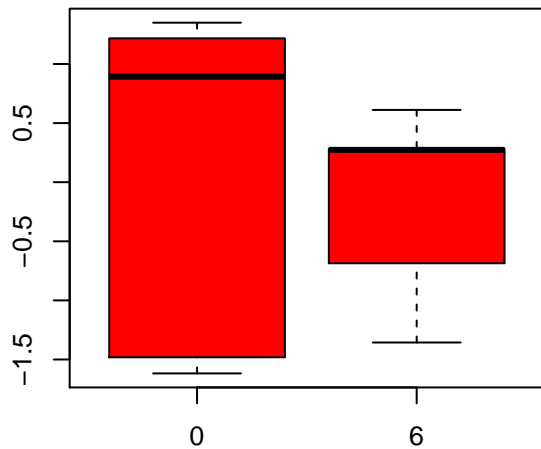


SKOV3

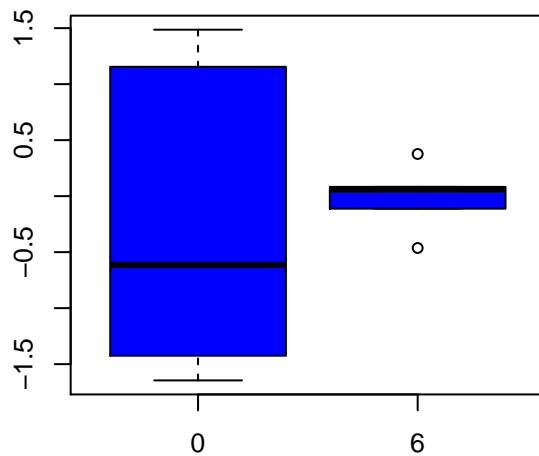
# pro-hydroxy-pro



**proline**



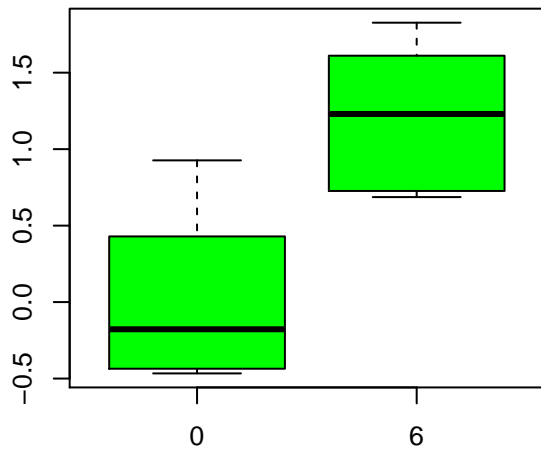
**proline**



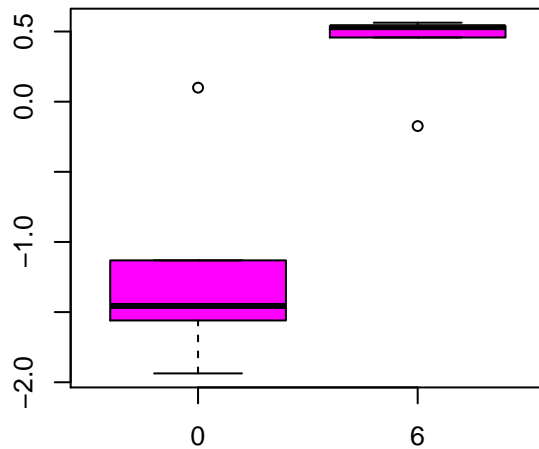
HCT116

OVCAR

**proline**



**proline**

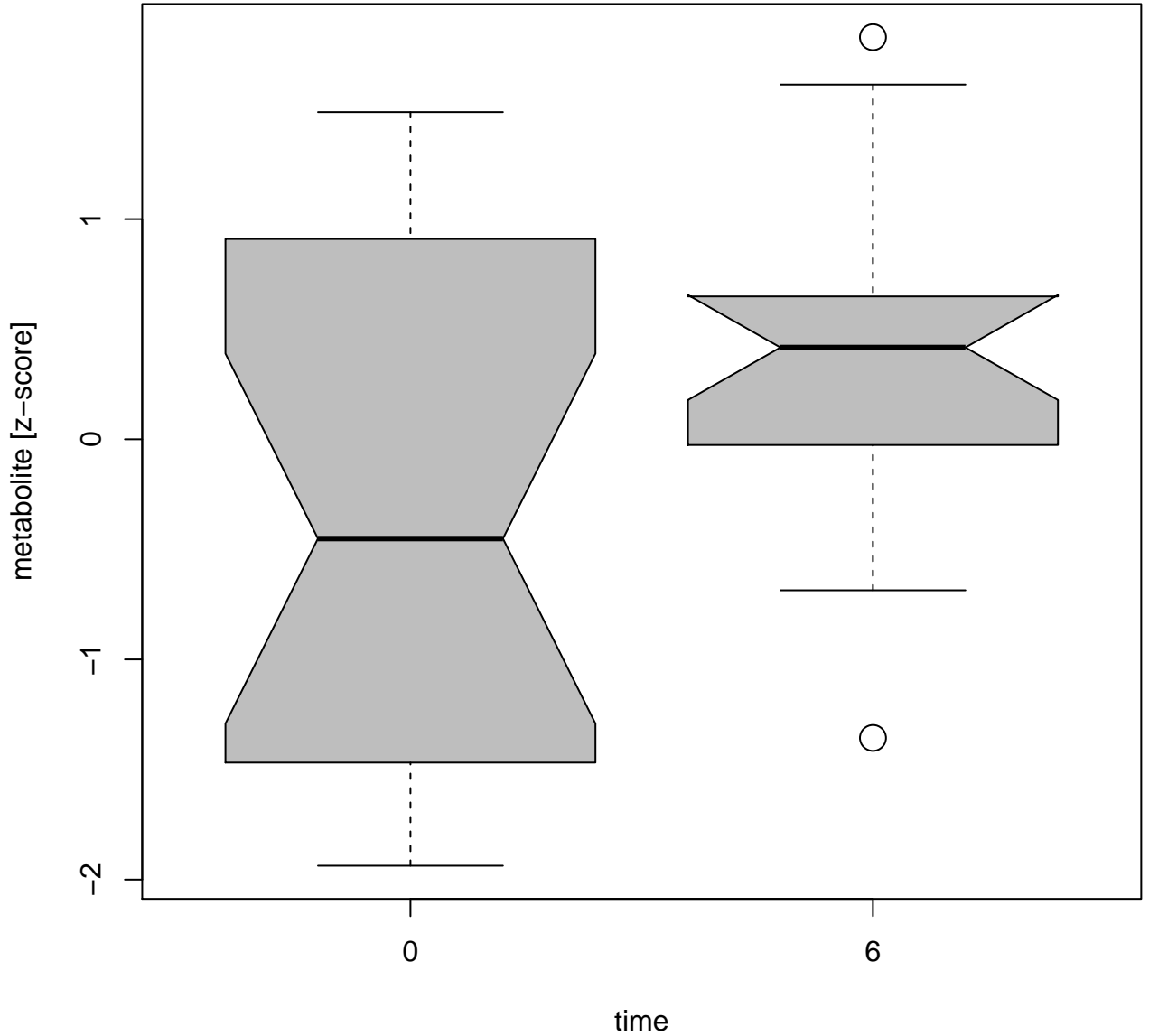


HCT15

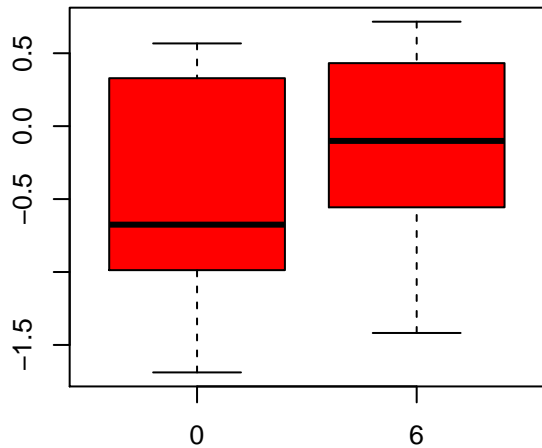
SKOV3



# proline

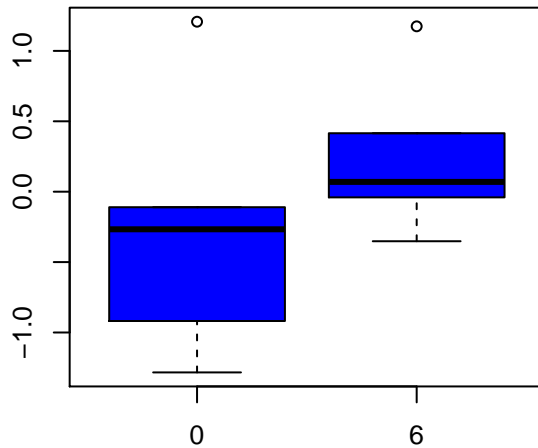


**polyglutamate**



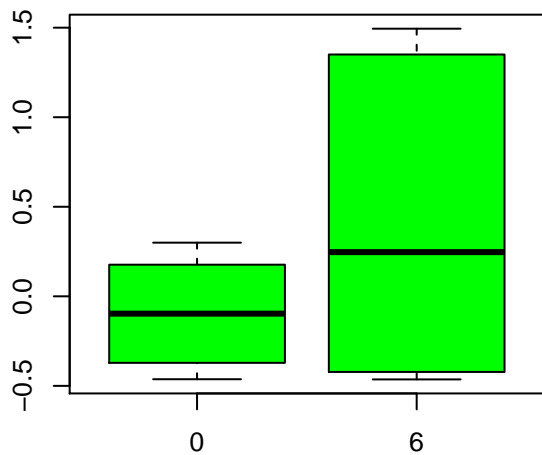
HCT116

**polyglutamate**



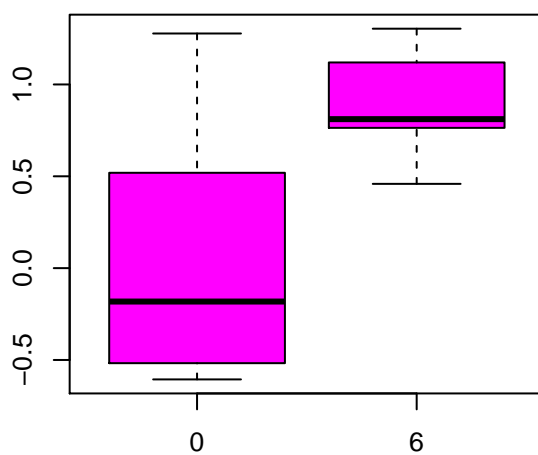
OVCAR

**polyglutamate**



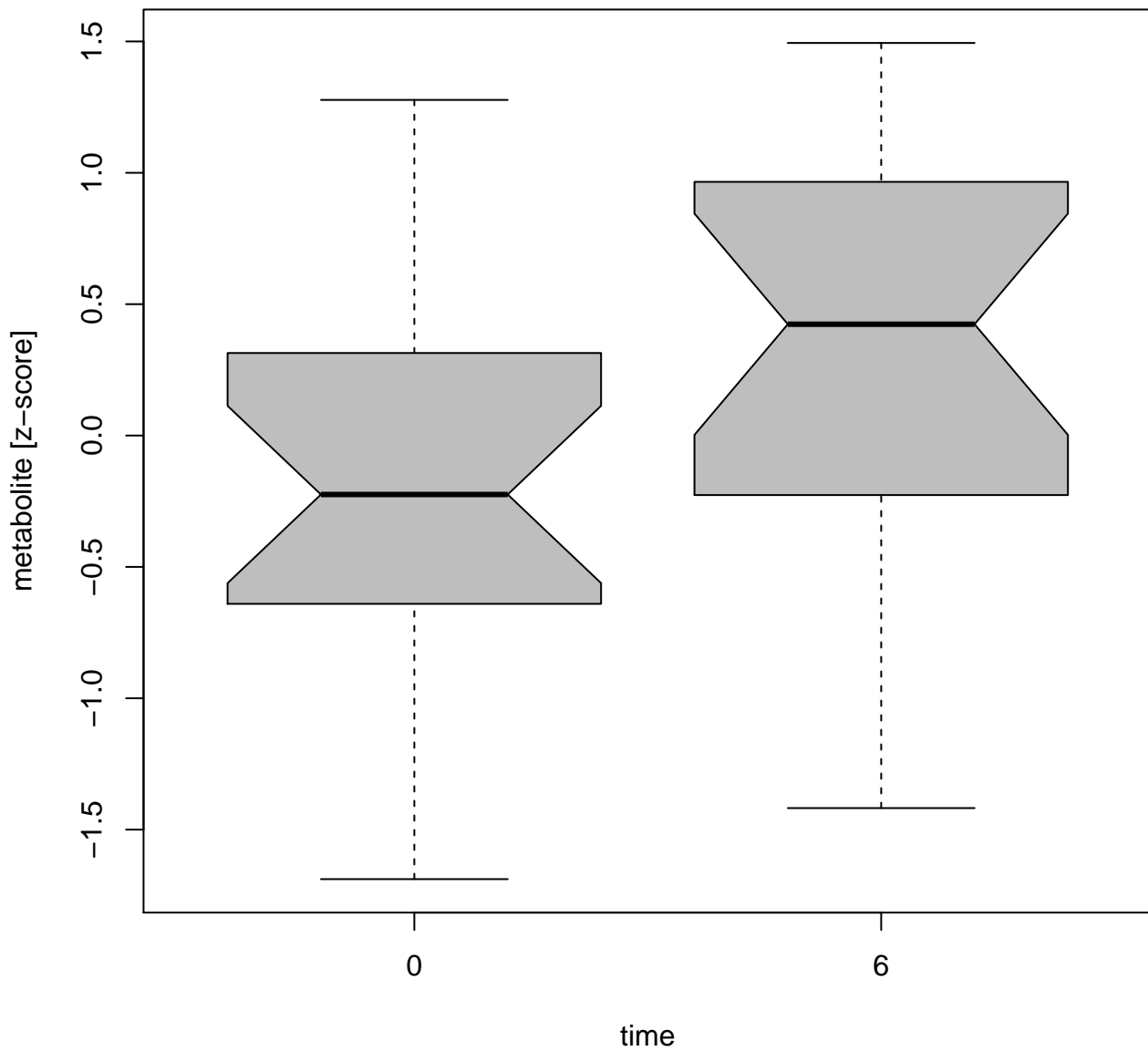
HCT15

**polyglutamate**

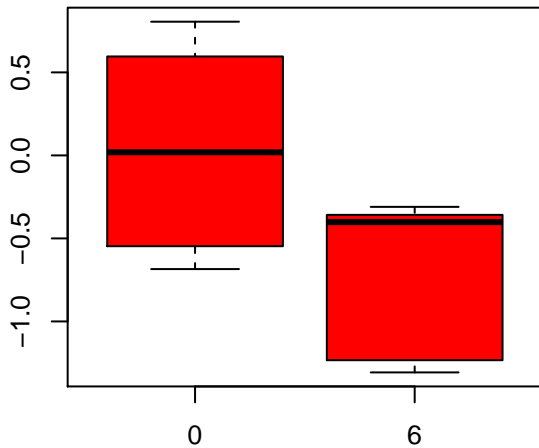


SKOV3

# prolylglutamate

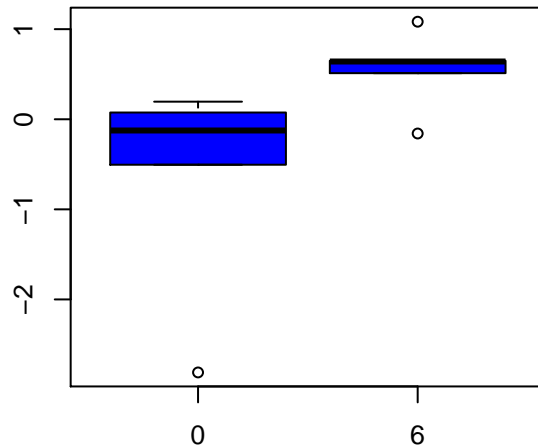


**propionylcarnitine**



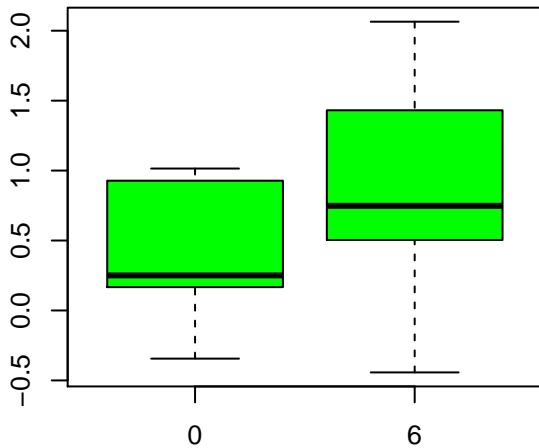
HCT116

**propionylcarnitine**



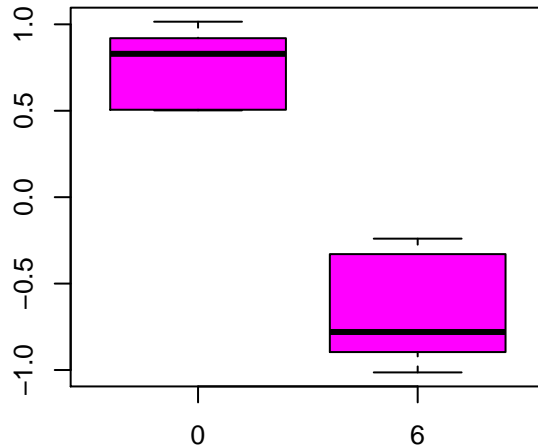
OVCAR

**propionylcarnitine**



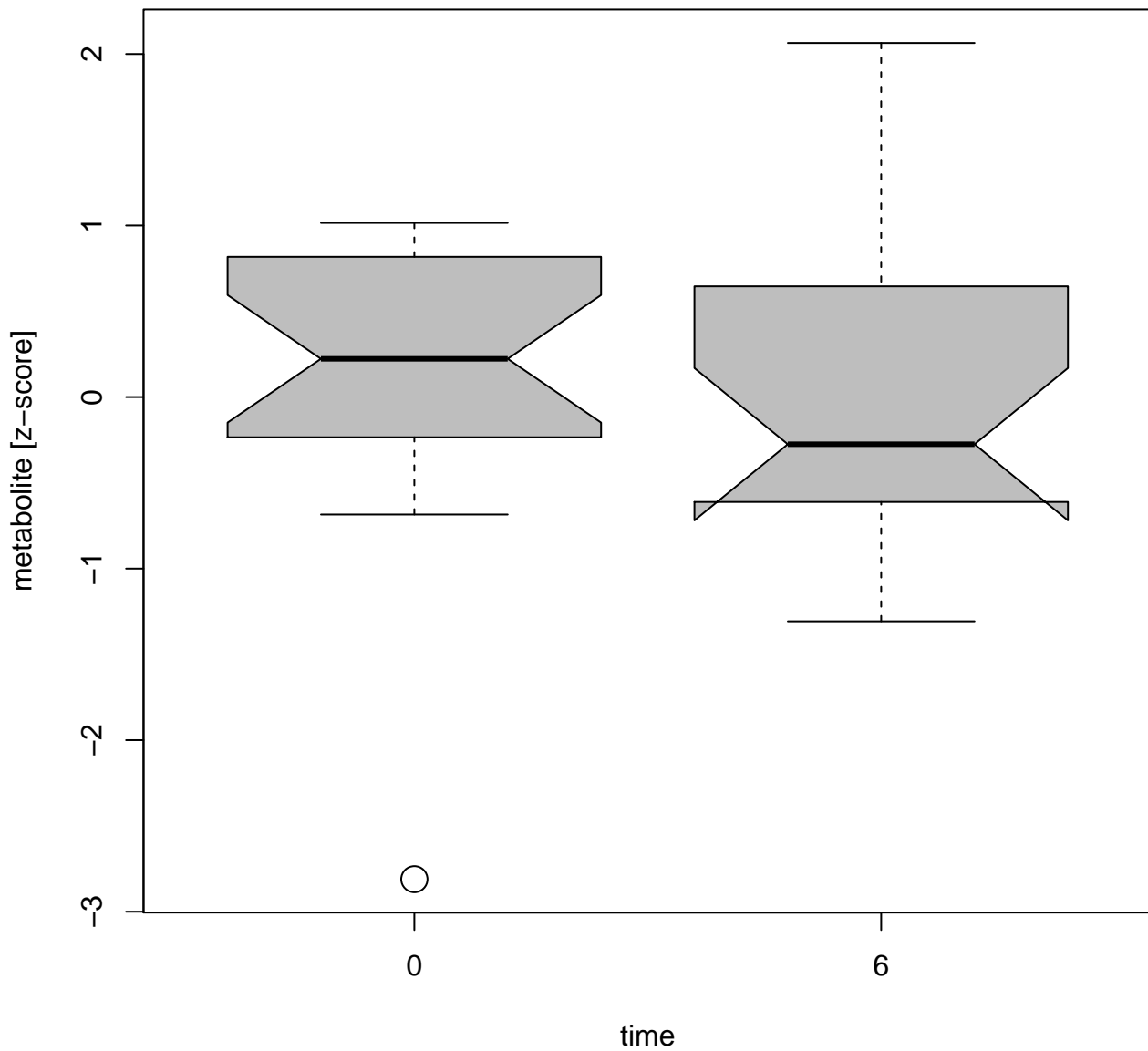
HCT15

**propionylcarnitine**

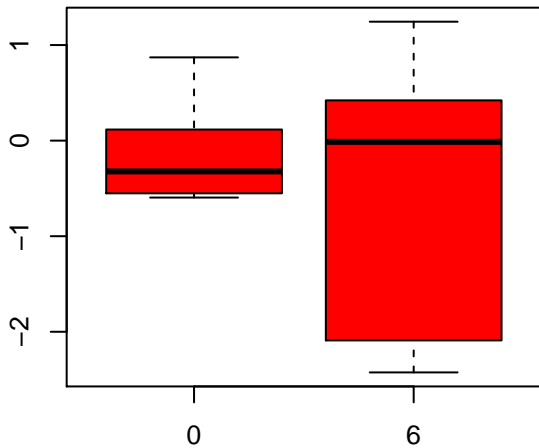


SKOV3

# propionylcarnitine

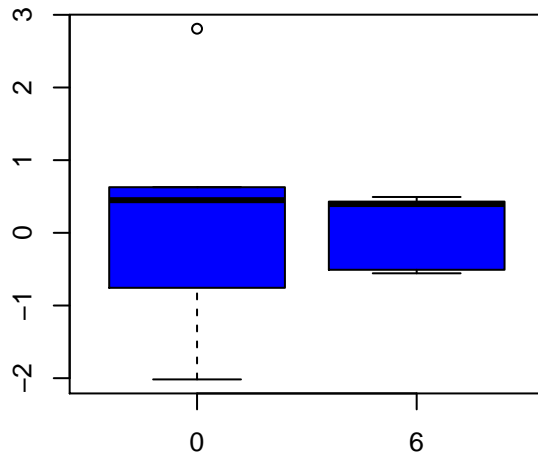


**putrescine**



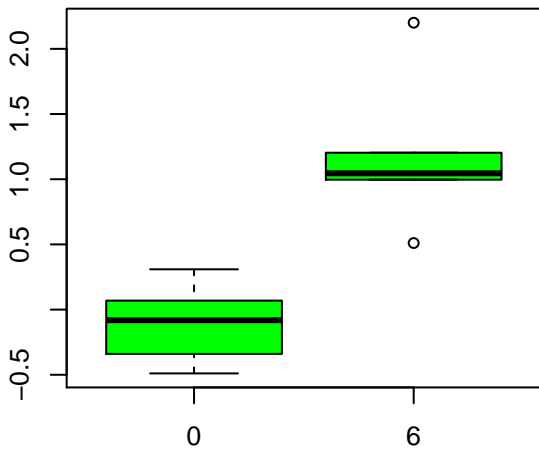
HCT116

**putrescine**



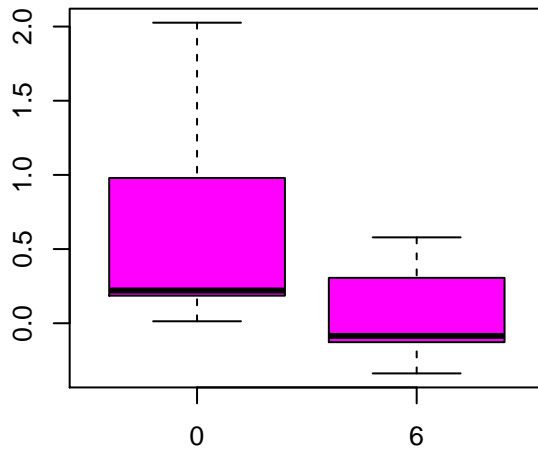
OVCAR

**putrescine**



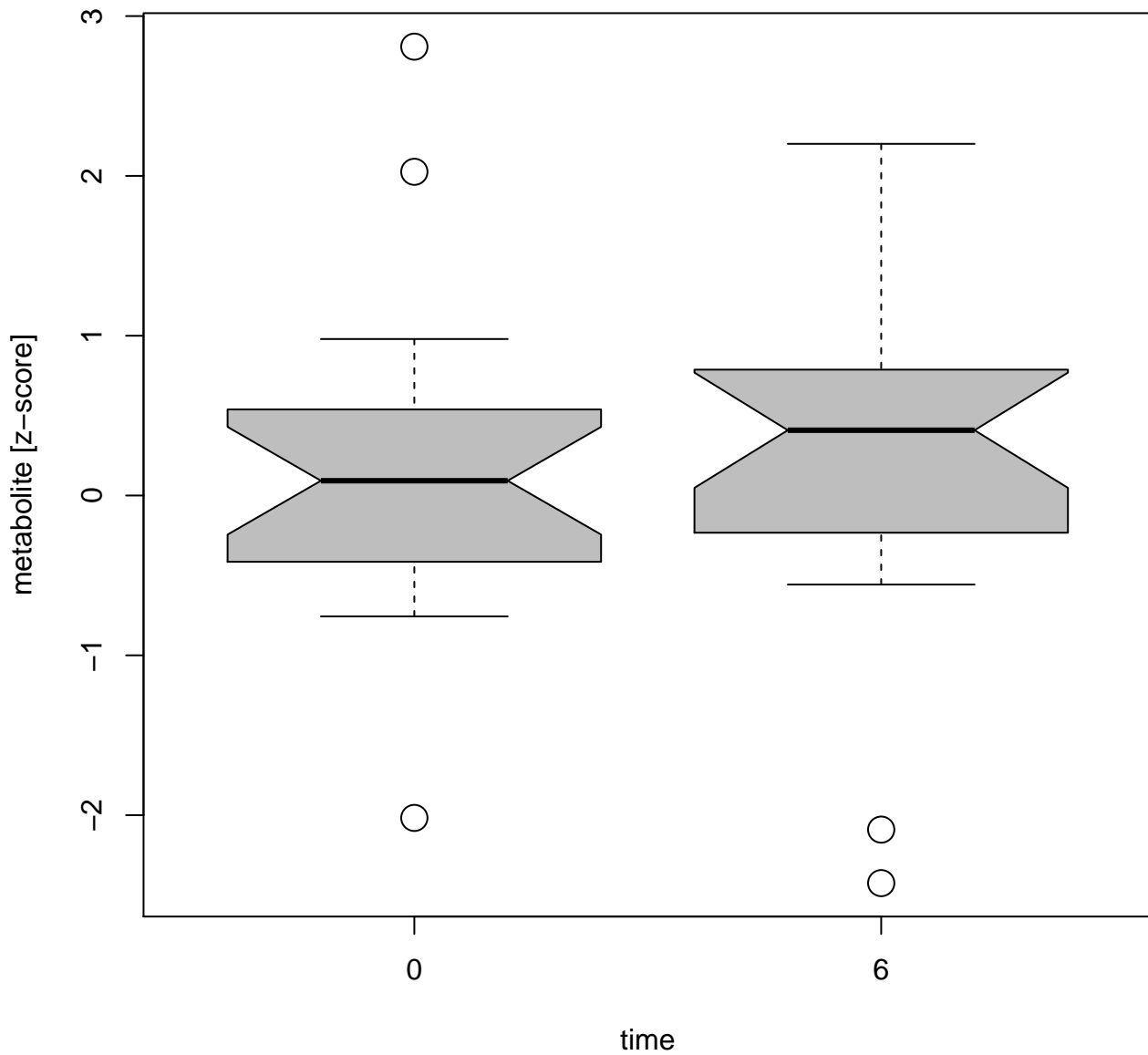
HCT15

**putrescine**

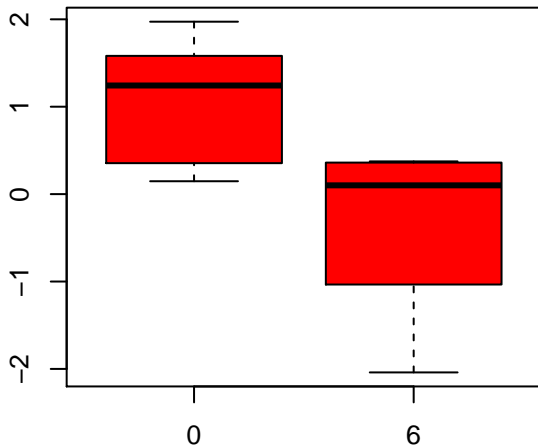


SKOV3

# putrescine

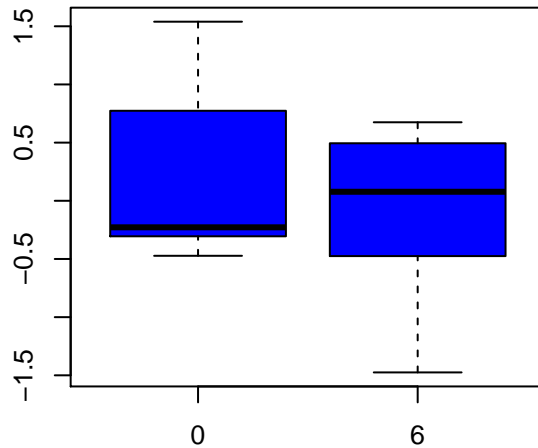


**pyroglutamine\***



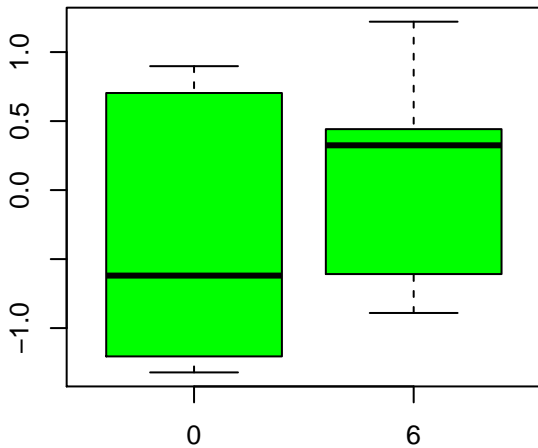
HCT116

**pyroglutamine\***



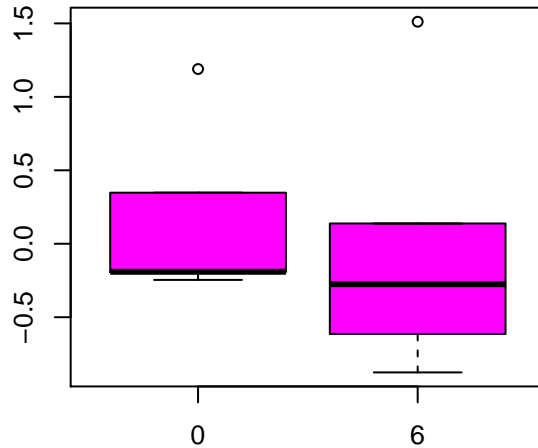
OVCAR

**pyroglutamine\***



HCT15

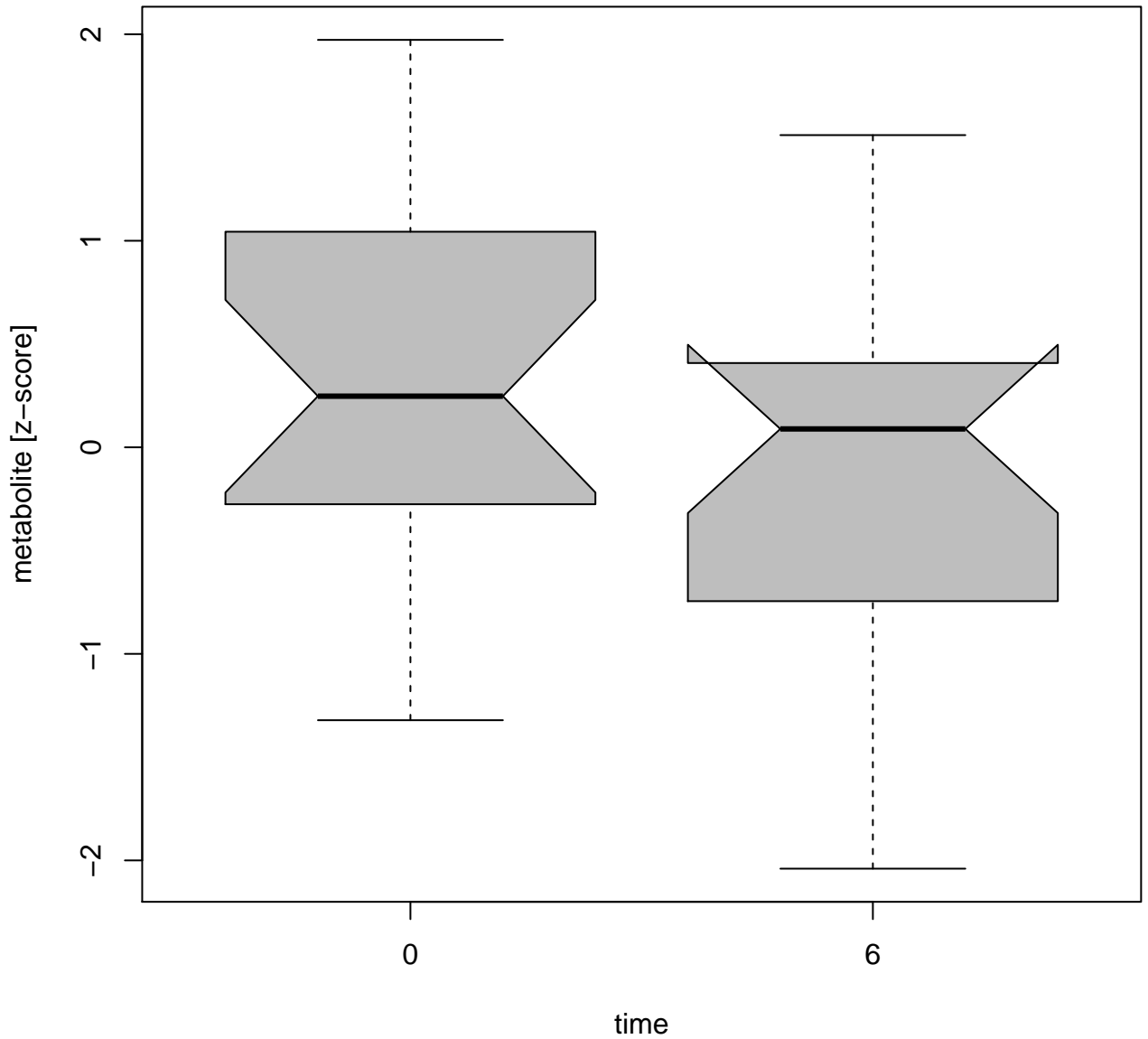
**pyroglutamine\***



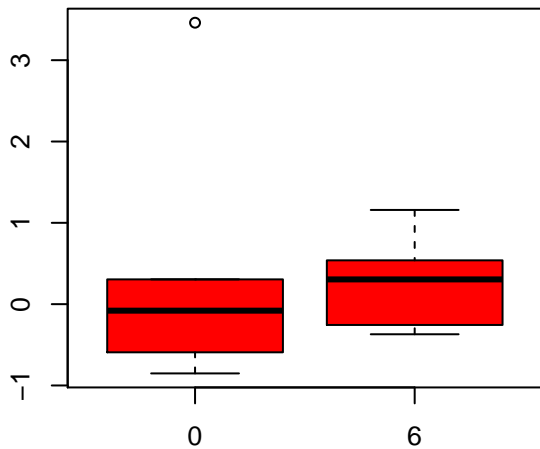
SKOV3



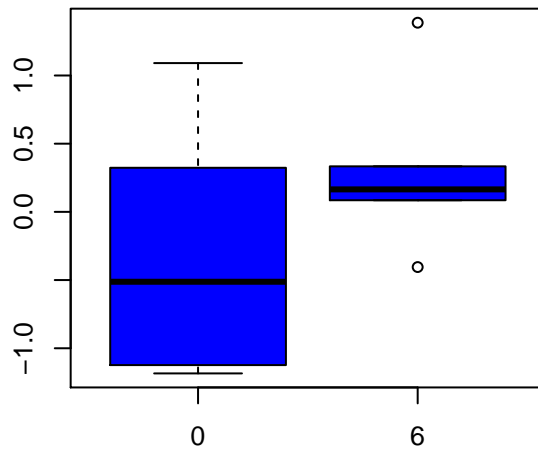
# pyroglutamine\*



**serine**

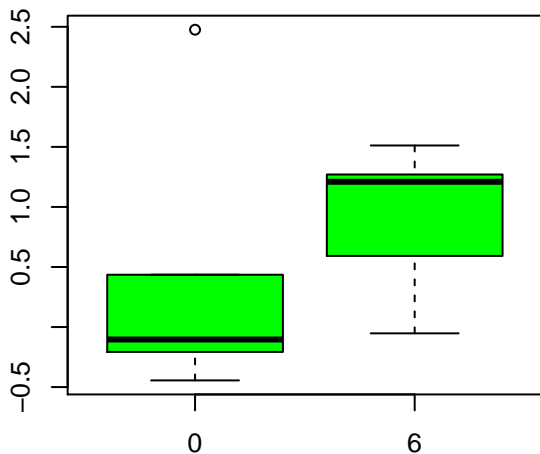


**serine**



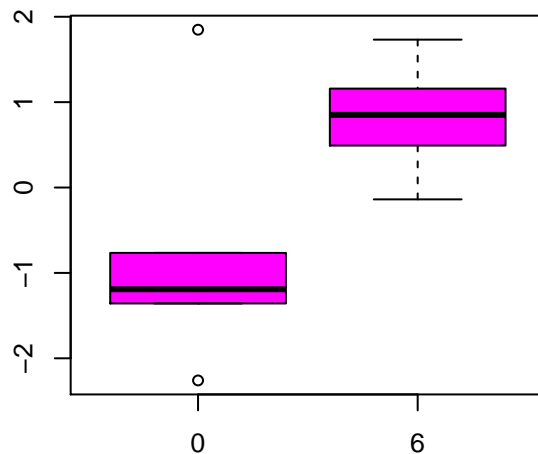
**HCT116**

**serine**



**OVCAR**

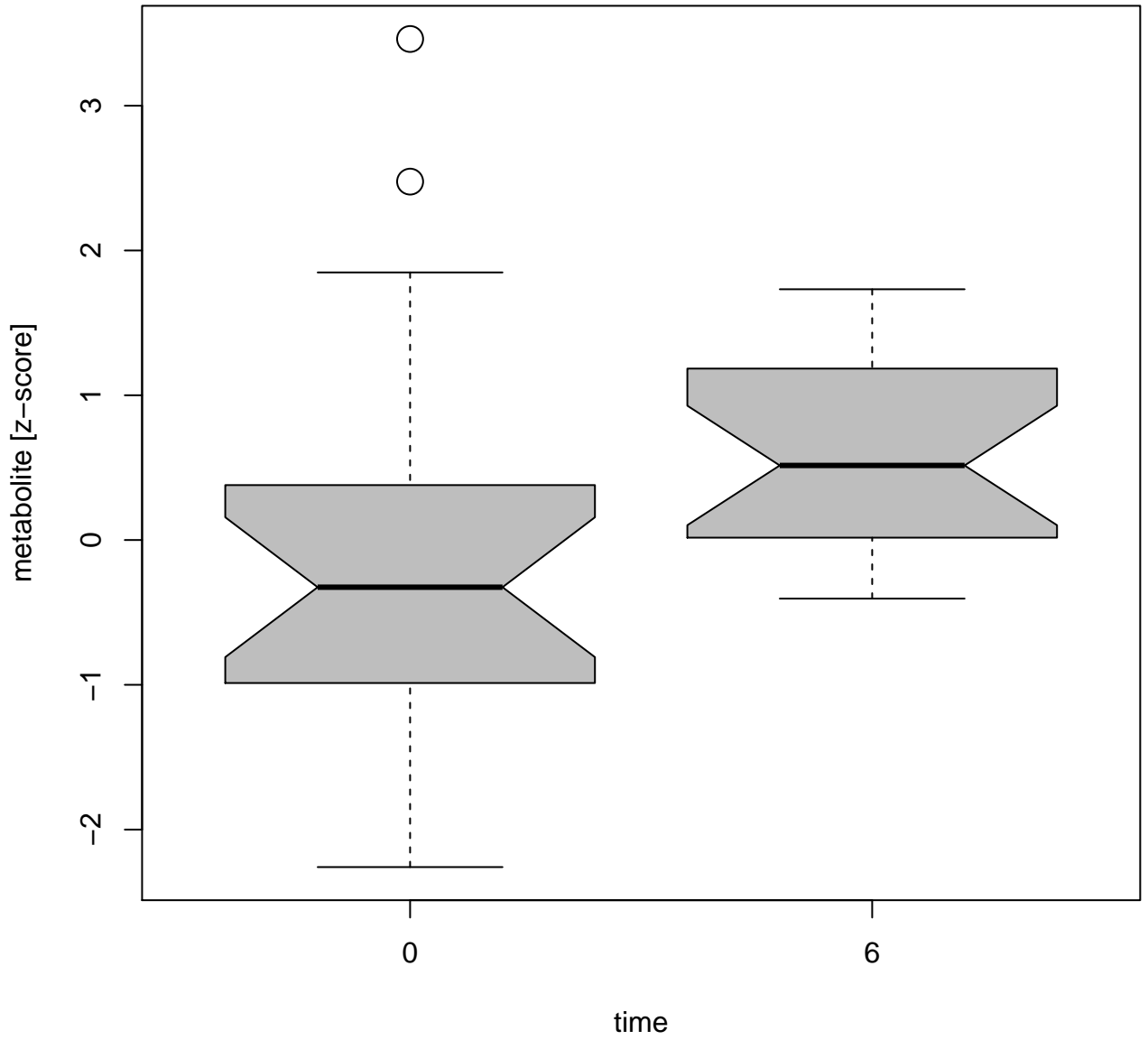
**serine**



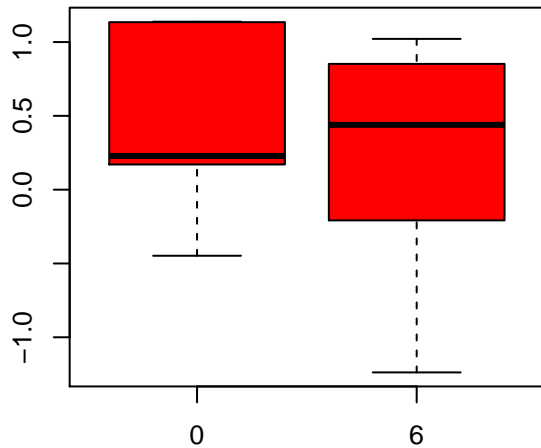
**HCT15**

**SKOV3**

# serine

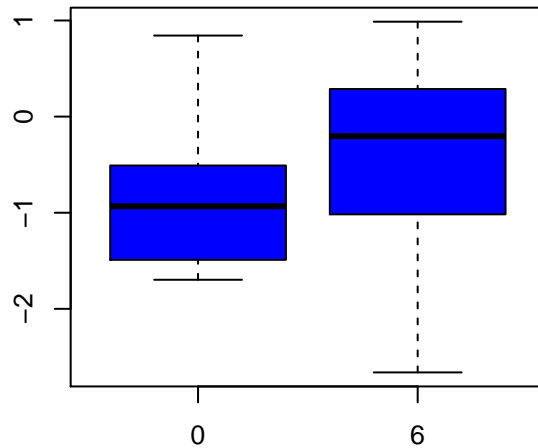


**serylleucine**



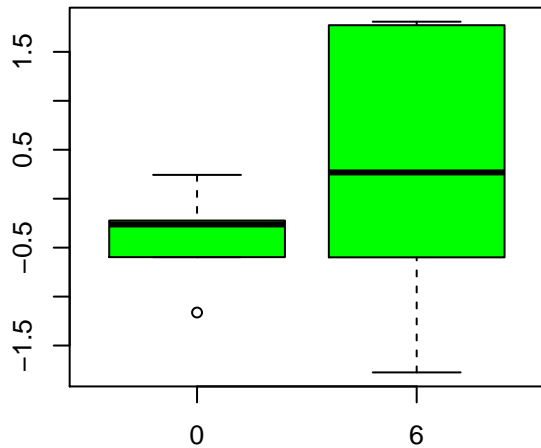
HCT116

**serylleucine**



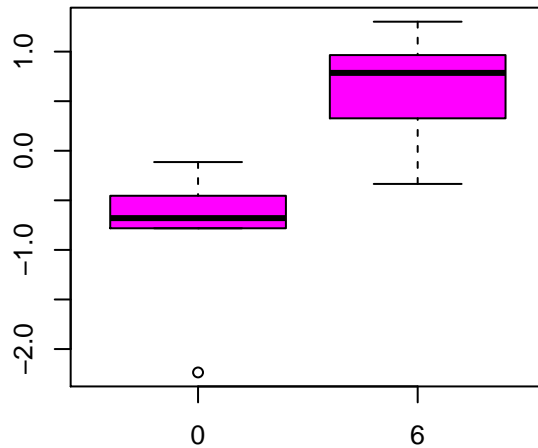
OVCAR

**serylleucine**



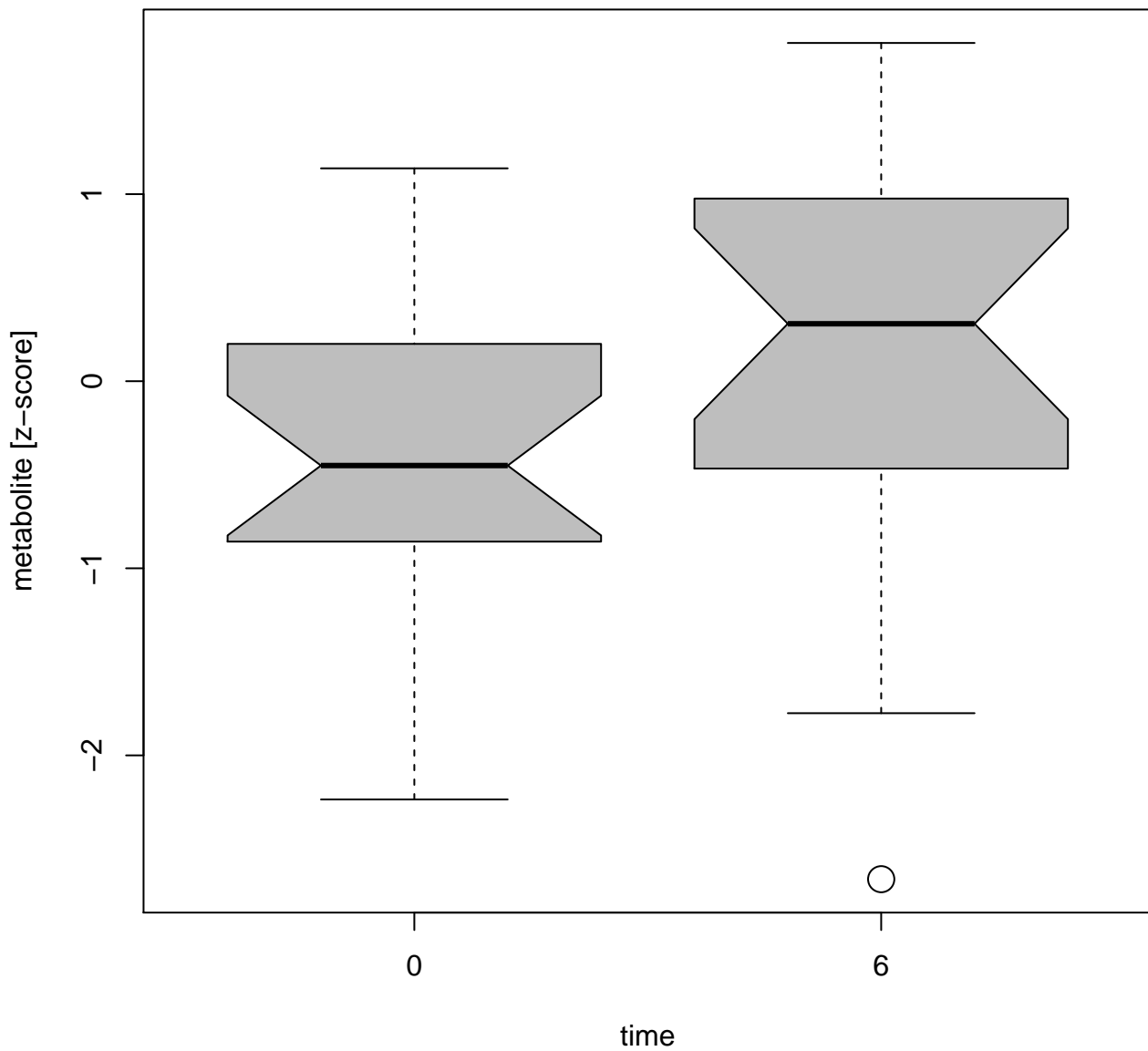
HCT15

**serylleucine**

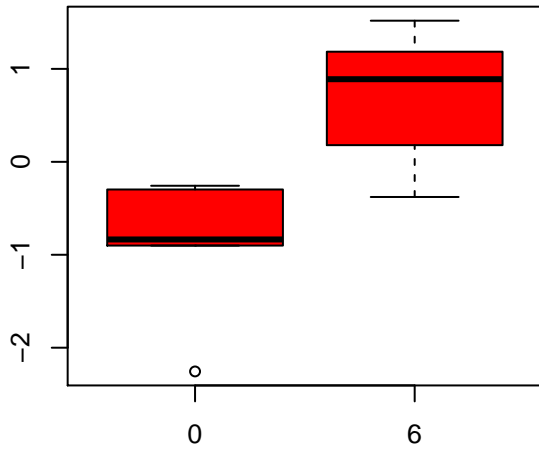


SKOV3

# serylleucine

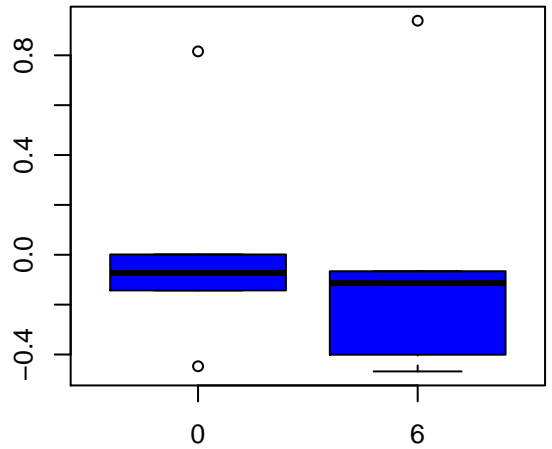


**spermidine**



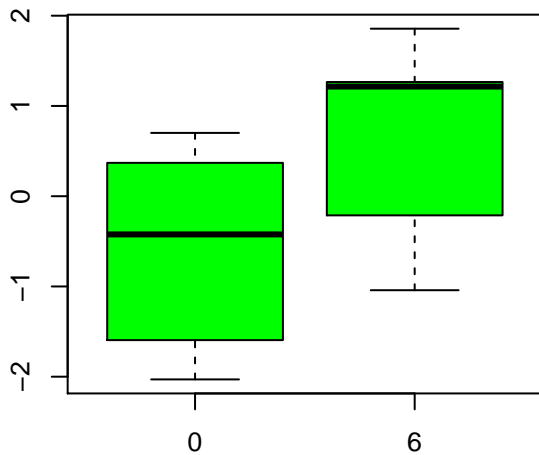
HCT116

**spermidine**



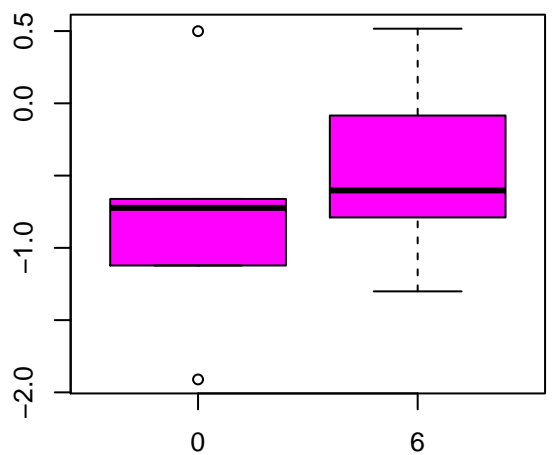
OVCAR

**spermidine**



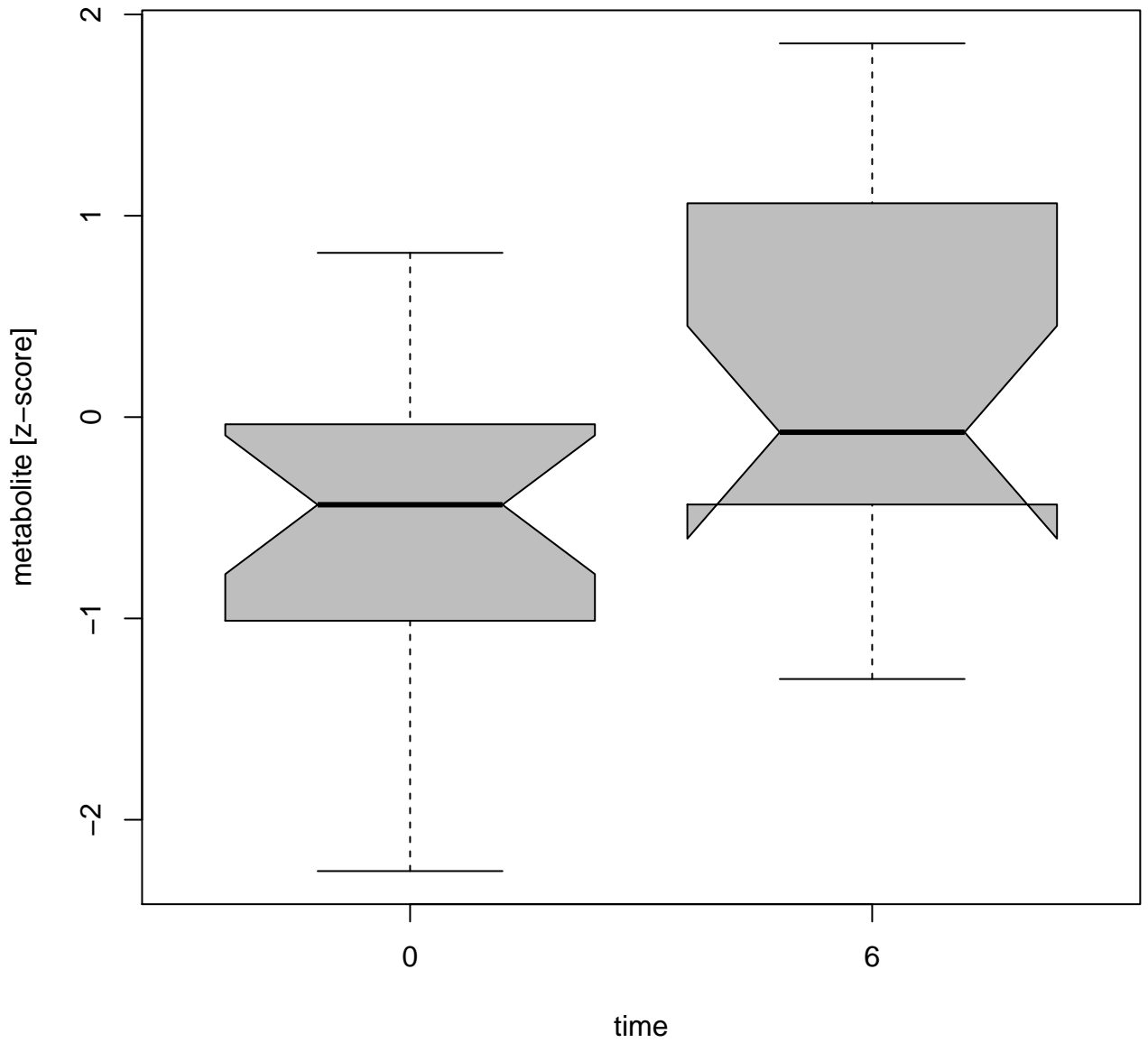
HCT15

**spermidine**

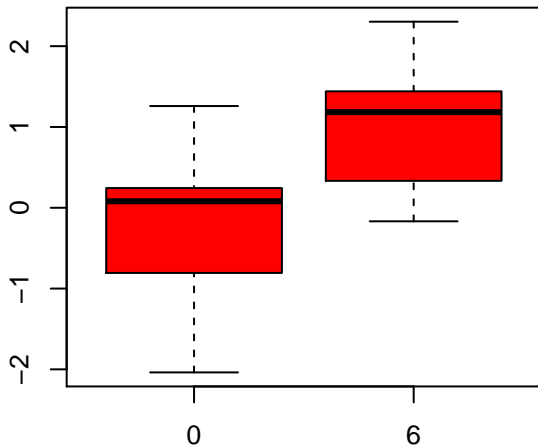


SKOV3

# spermidine

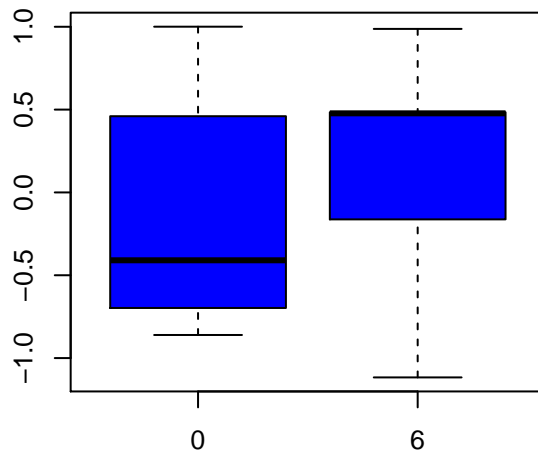


**spermine**



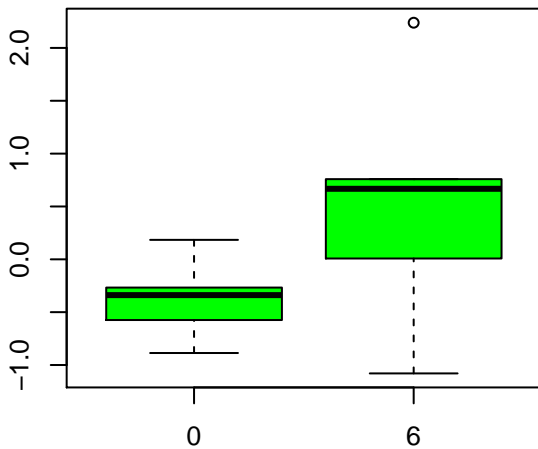
HCT116

**spermine**



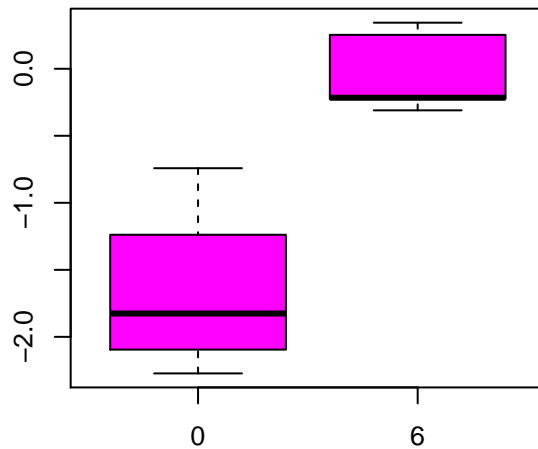
OVCAR

**spermine**



HCT15

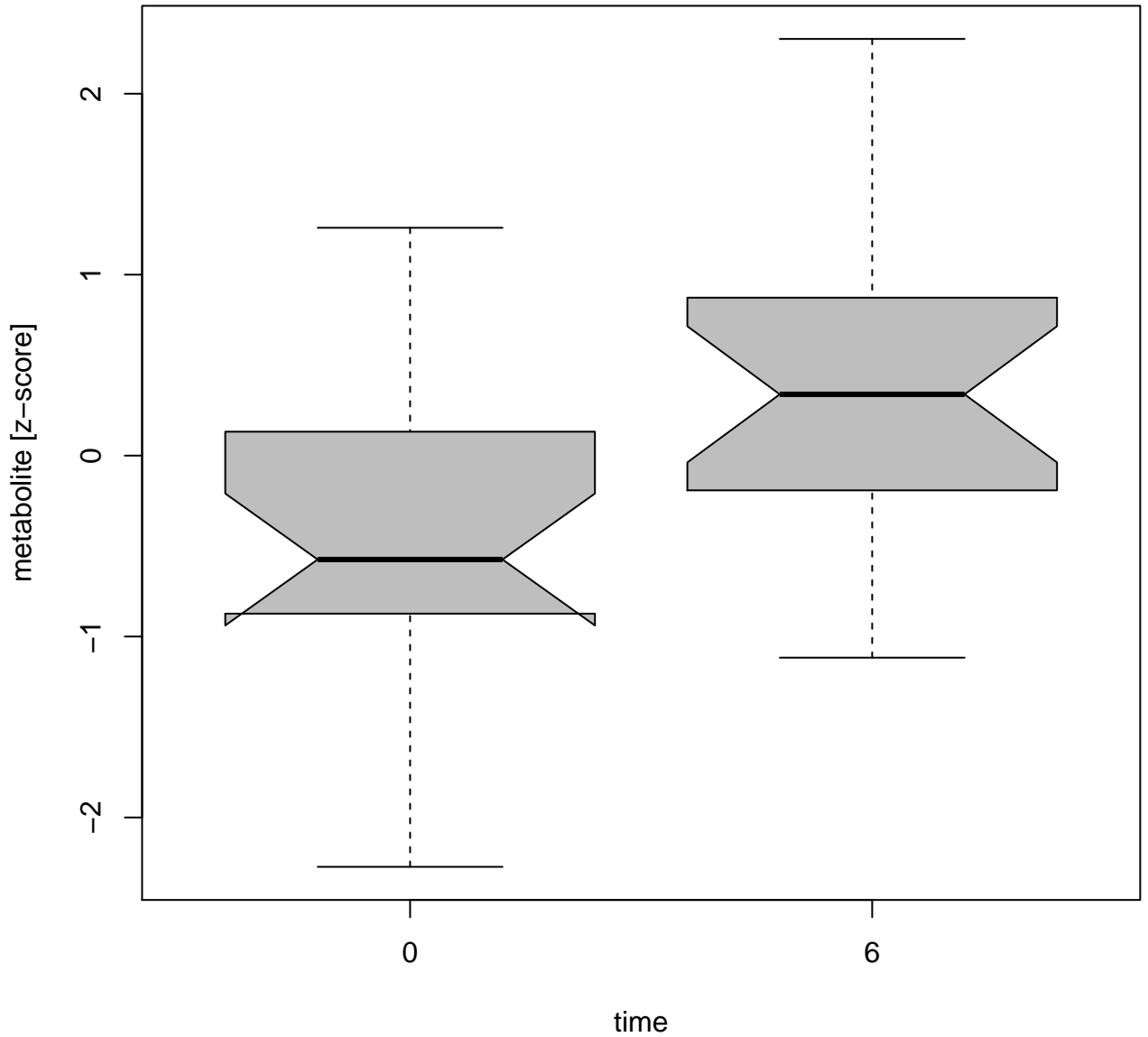
**spermine**



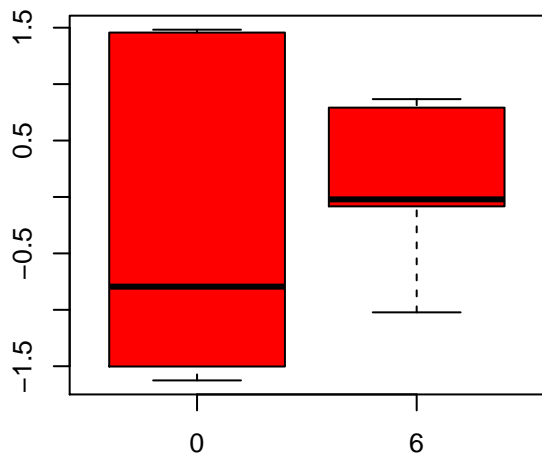
SKOV3



# spermine

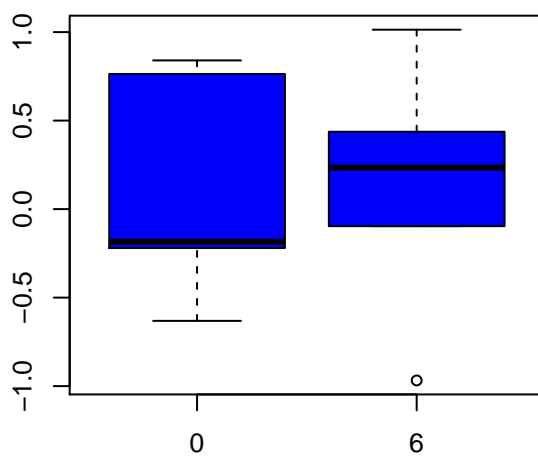


**threonine**



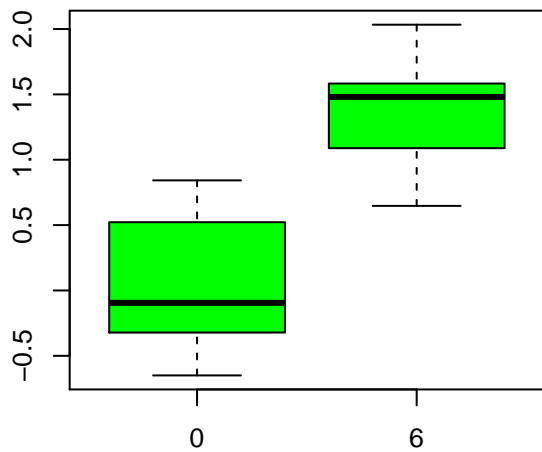
HCT116

**threonine**



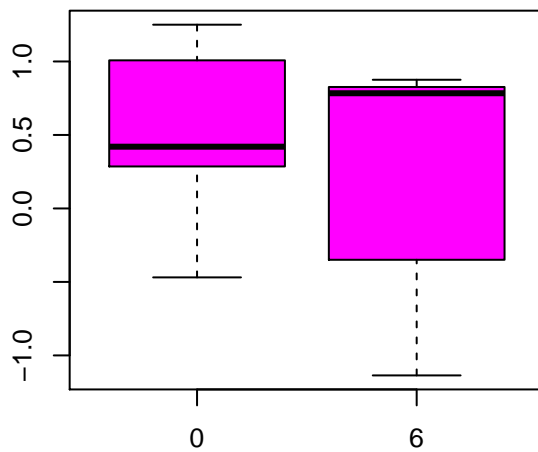
OVCAR

**threonine**



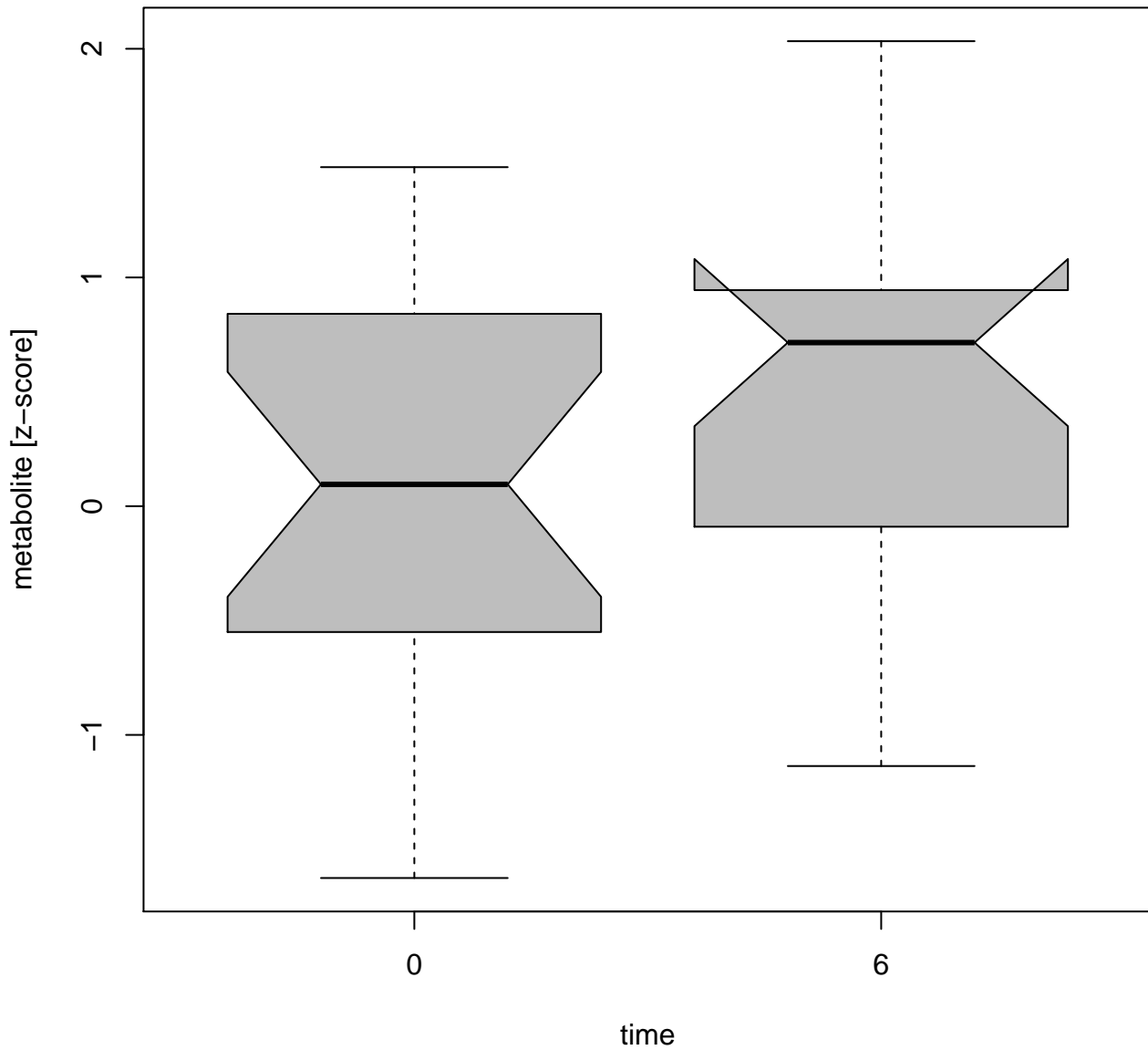
HCT15

**threonine**

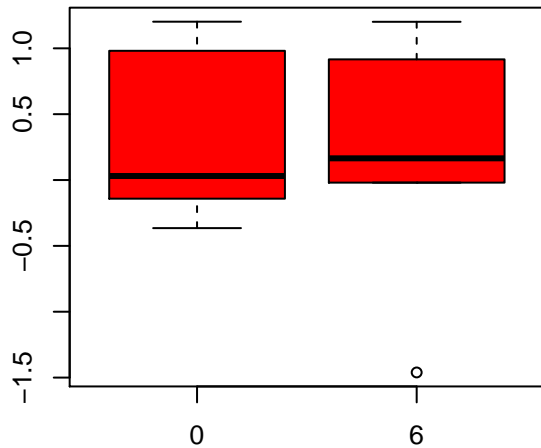


SKOV3

# threonine

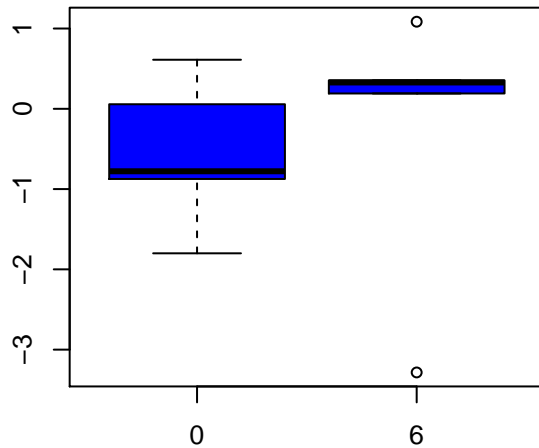


**threonylleucine**



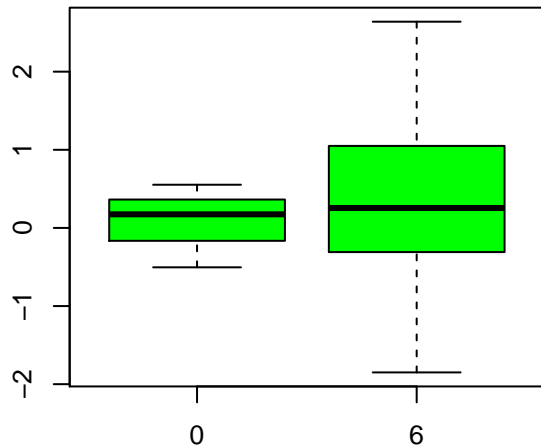
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**threonylleucine**



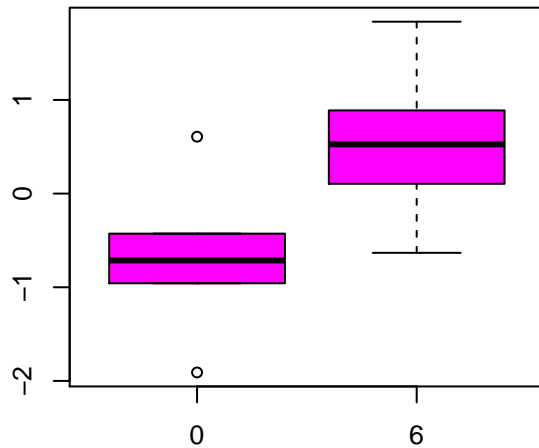
OVCAR

**threonylleucine**



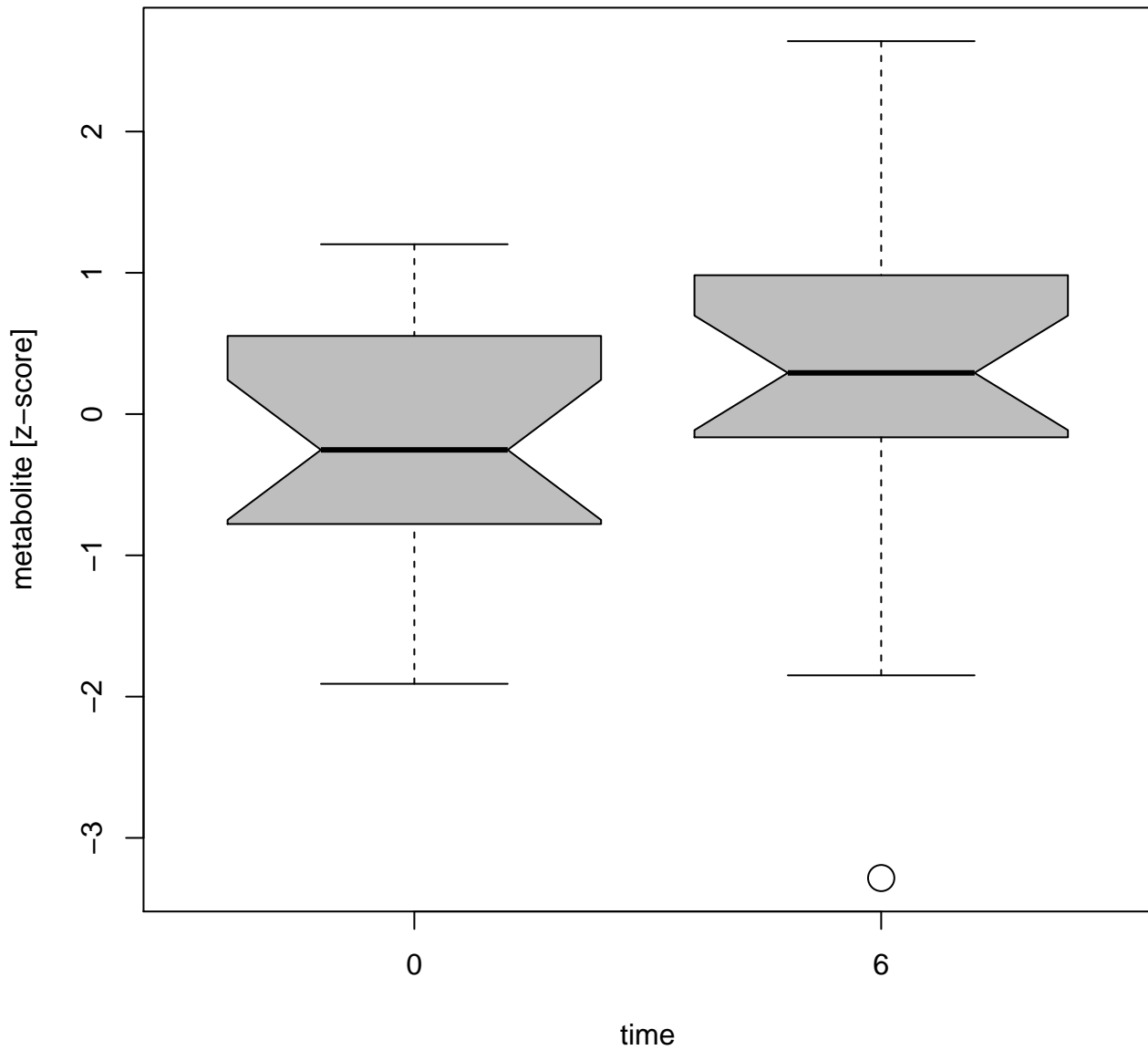
HCT15

**threonylleucine**

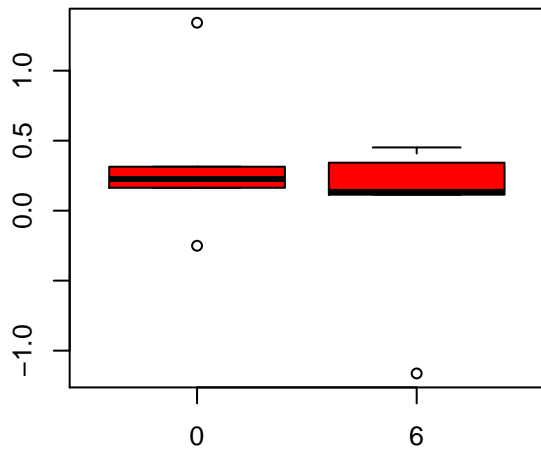


SKOV3

# threonylleucine

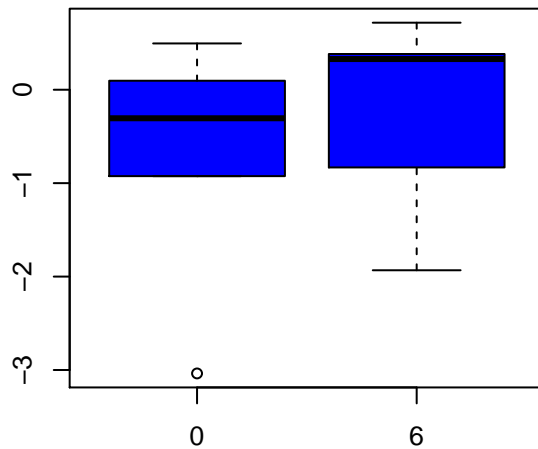


**threonylphenylalanine**



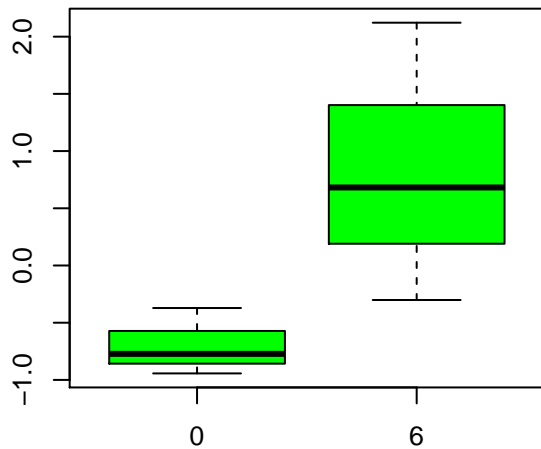
HCT116

**threonylphenylalanine**



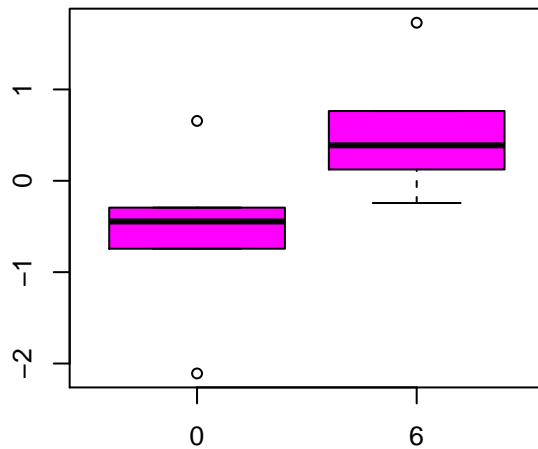
OVCAR

**threonylphenylalanine**



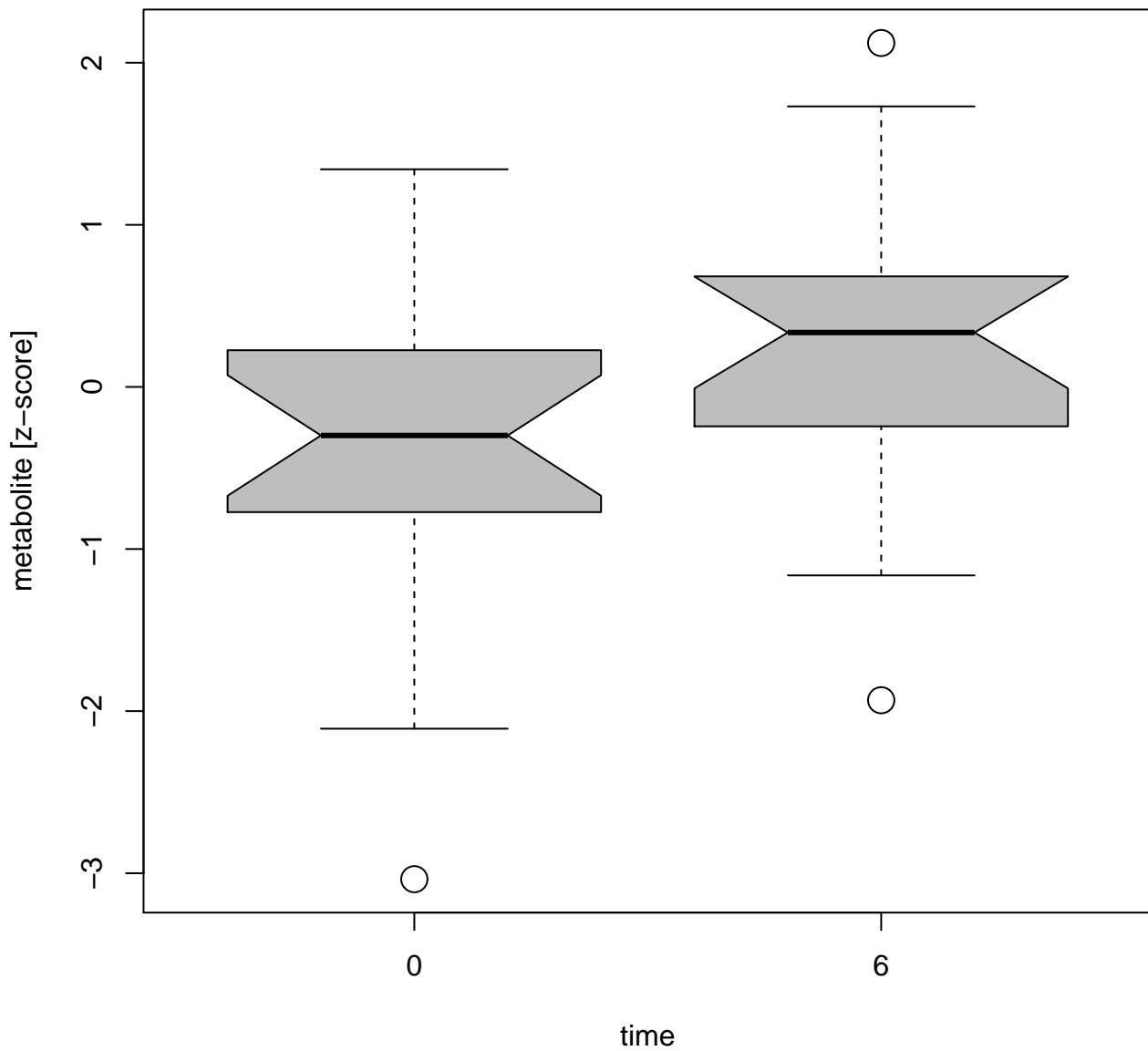
HCT15

**threonylphenylalanine**

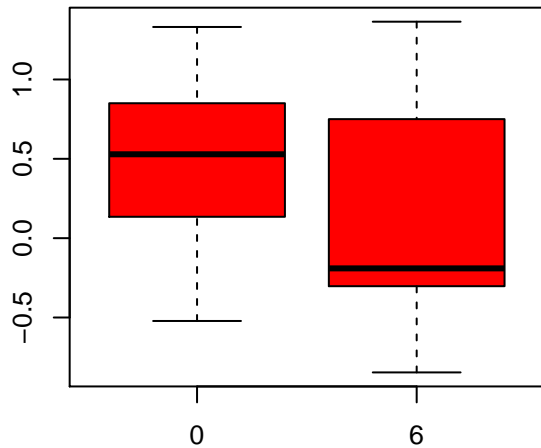


SKOV3

# threonylphenylalanine

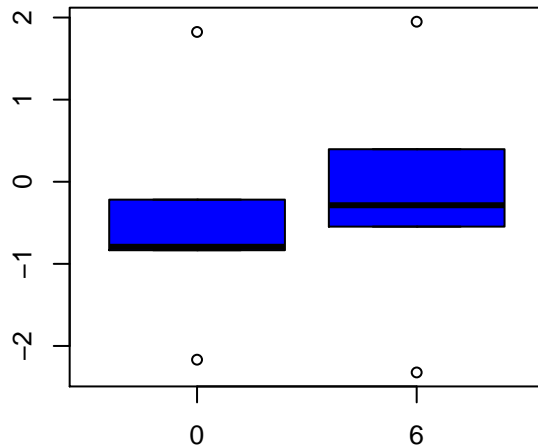


**threonylvaline**



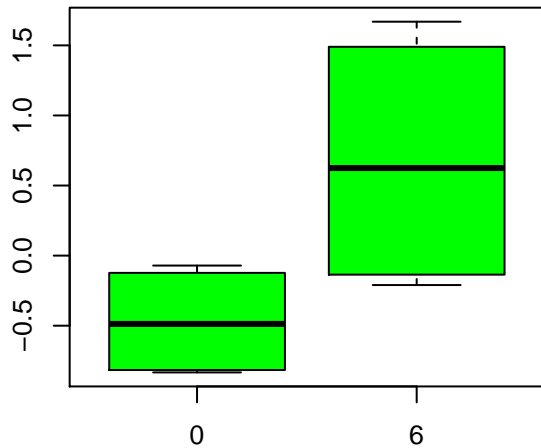
HCT116

**threonylvaline**



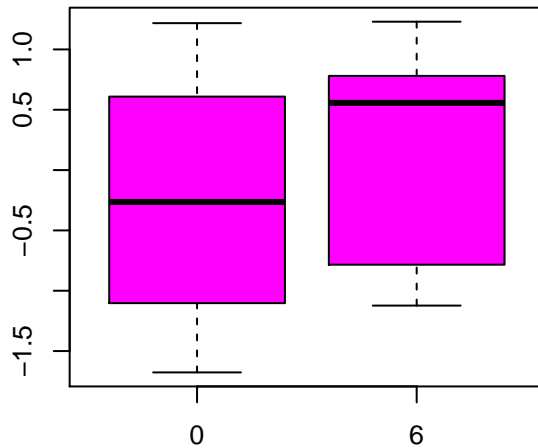
OVCAR

**threonylvaline**



HCT15

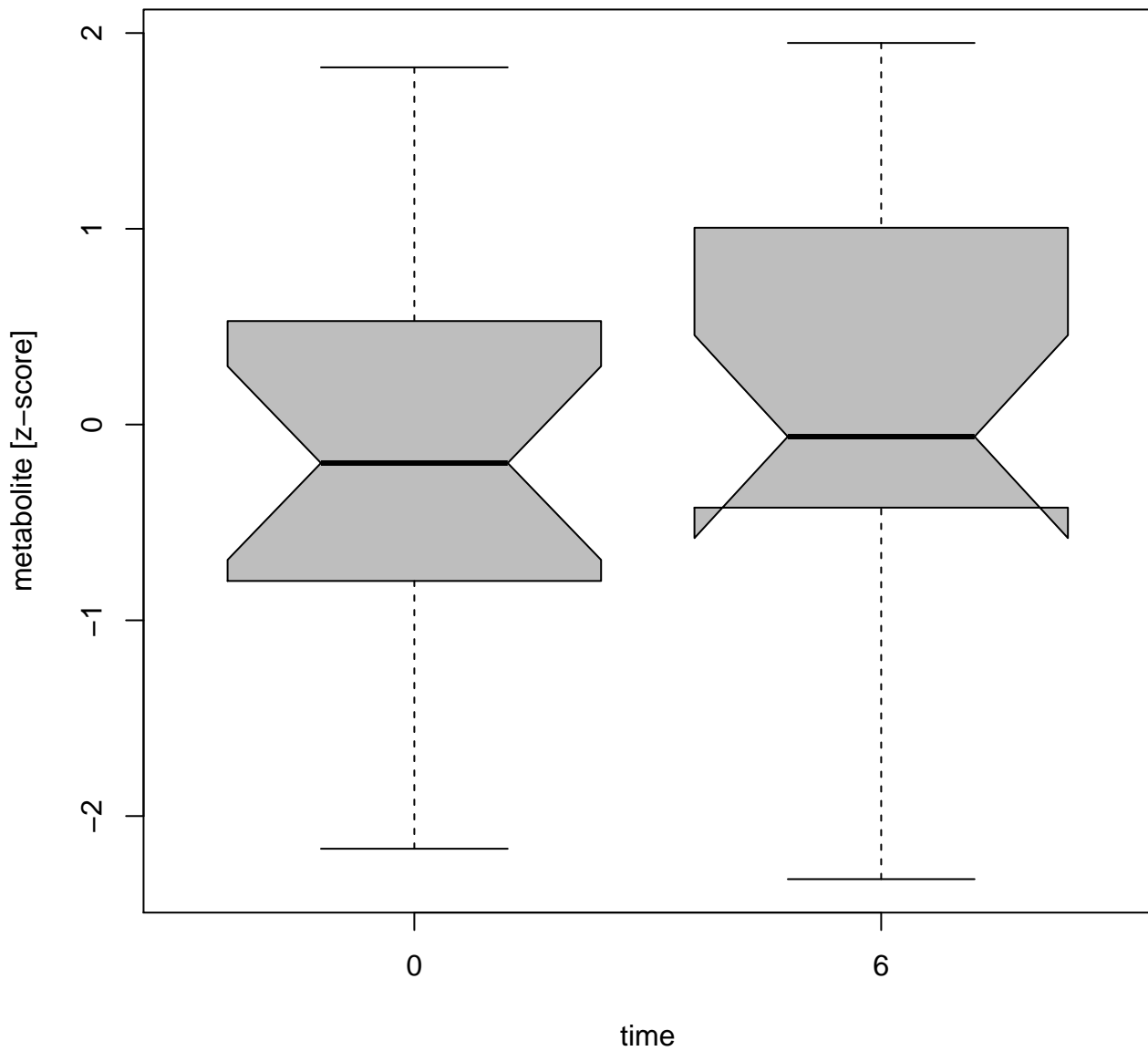
**threonylvaline**



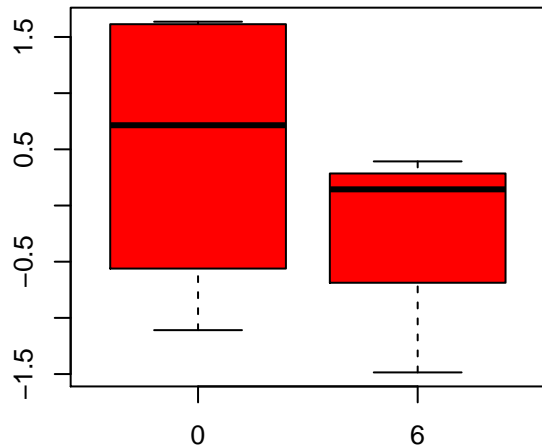
SKOV3



# threonylvaline

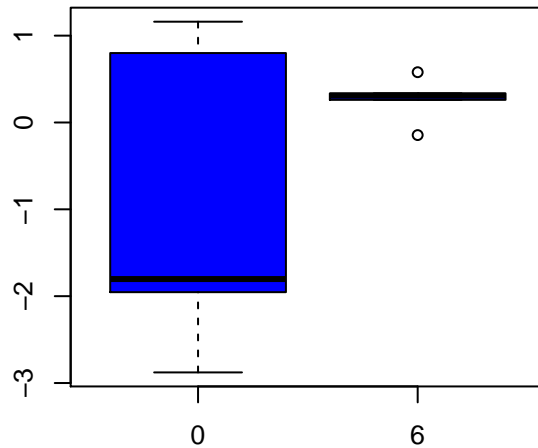


**trans-4-hydroxyproline**



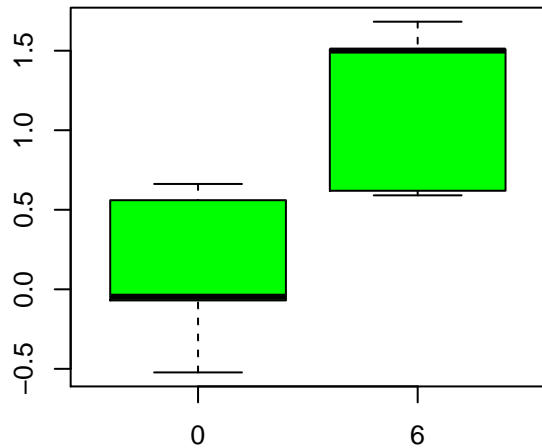
HCT116

**trans-4-hydroxyproline**



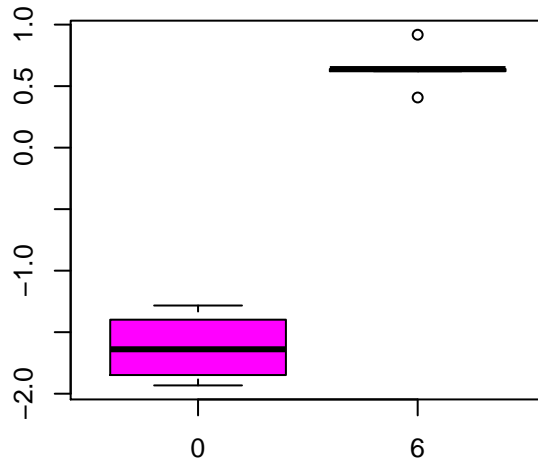
OVCAR

**trans-4-hydroxyproline**



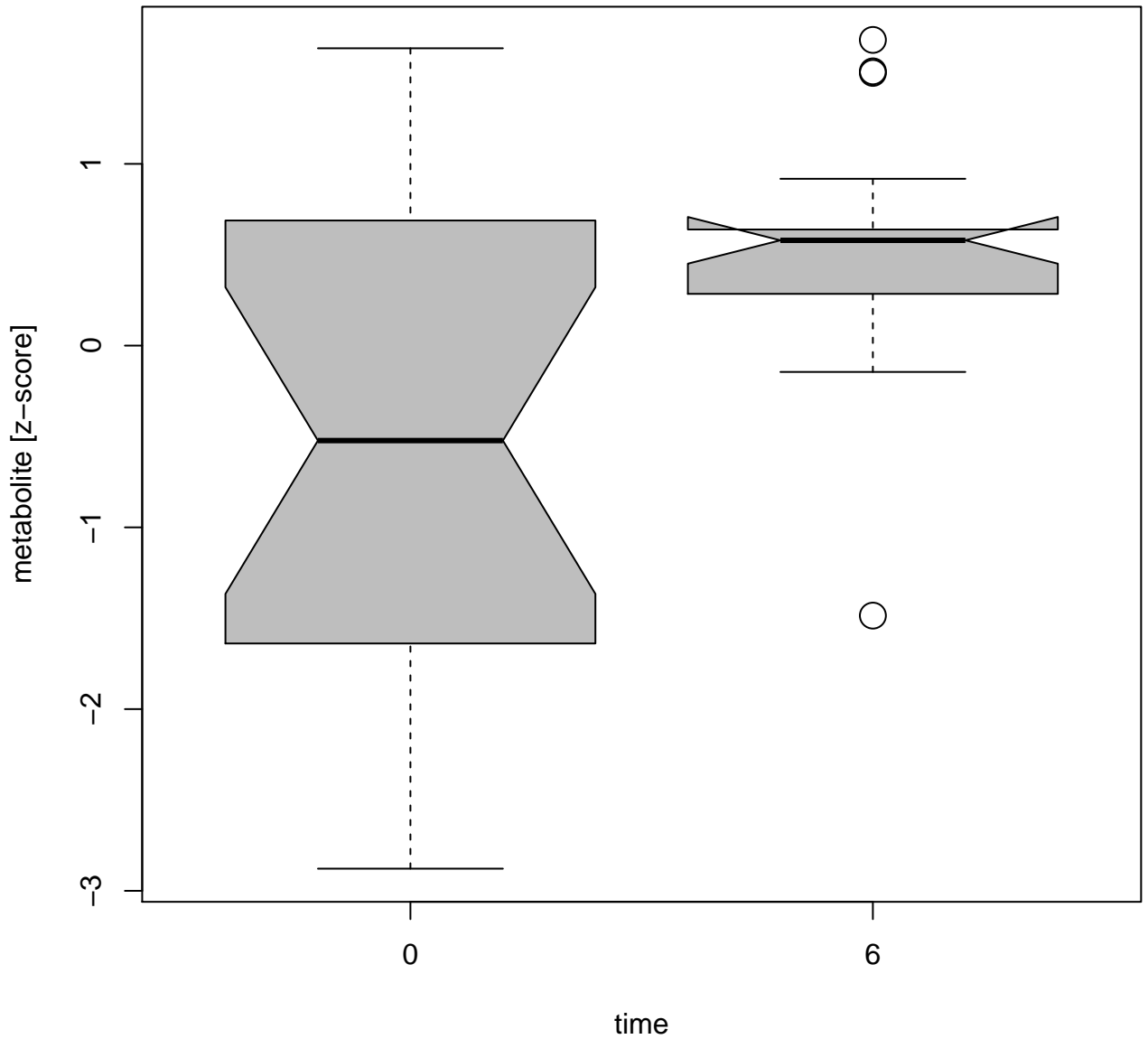
HCT15

**trans-4-hydroxyproline**

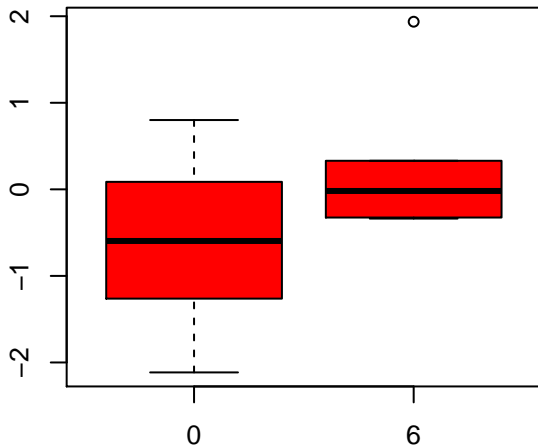


SKOV3

# trans-4-hydroxyproline

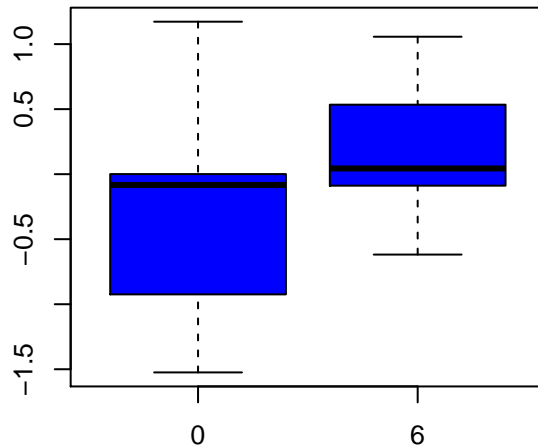


**tyrosine**



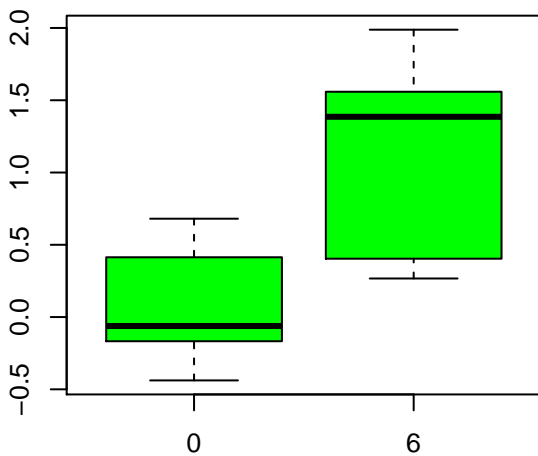
HCT116

**tyrosine**



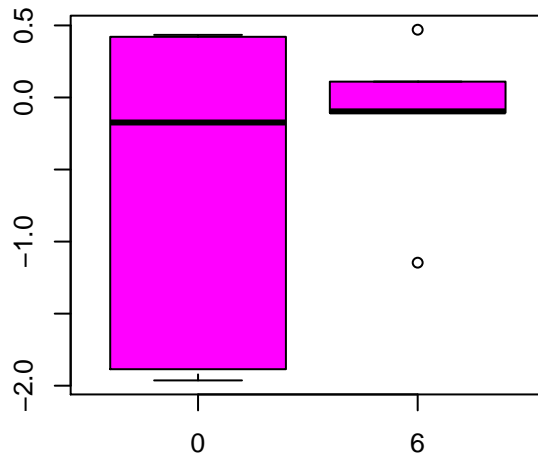
OVCAR

**tyrosine**



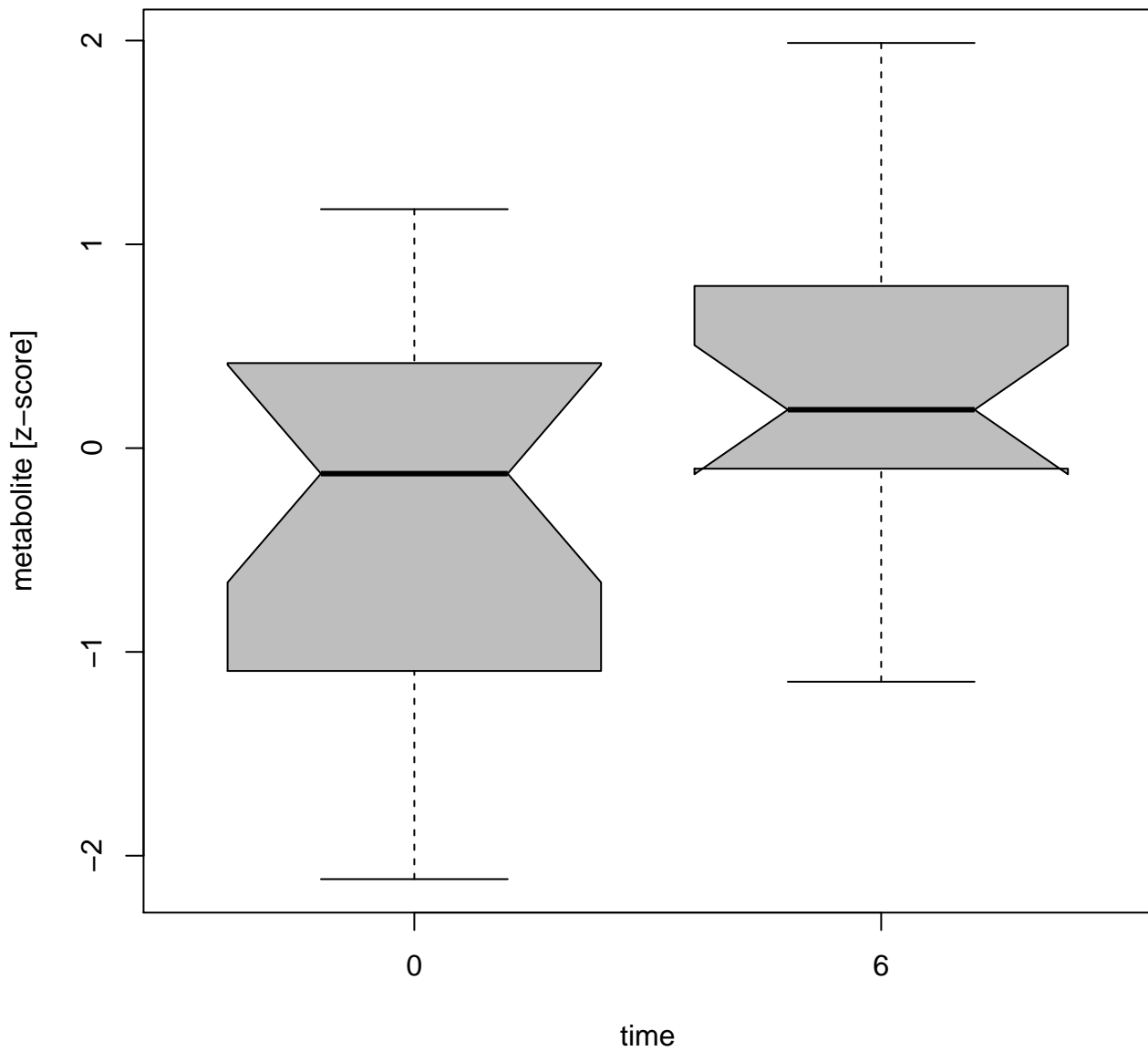
HCT15

**tyrosine**

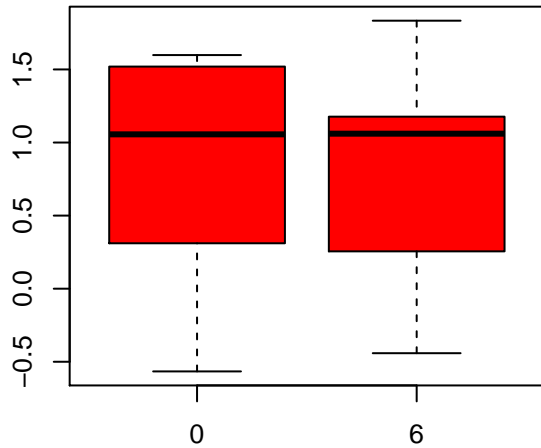


SKOV3

# tyrosine

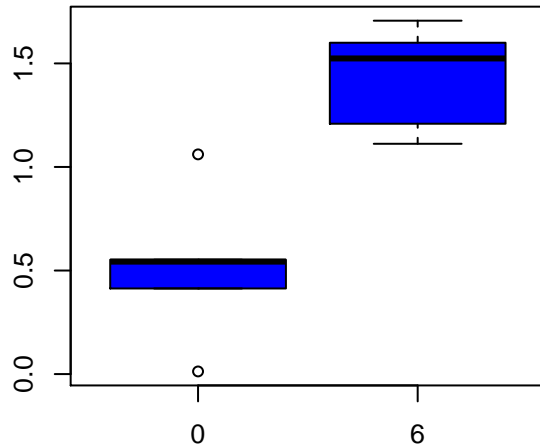


**UDP-glucuronate**



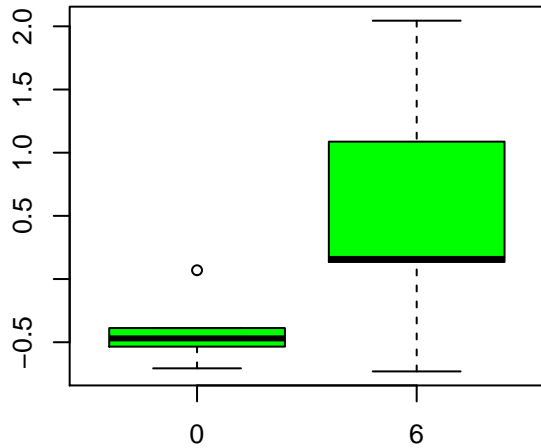
HCT116

**UDP-glucuronate**



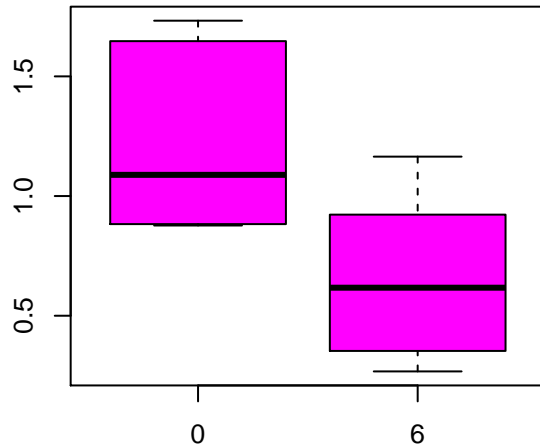
OVCAR

**UDP-glucuronate**



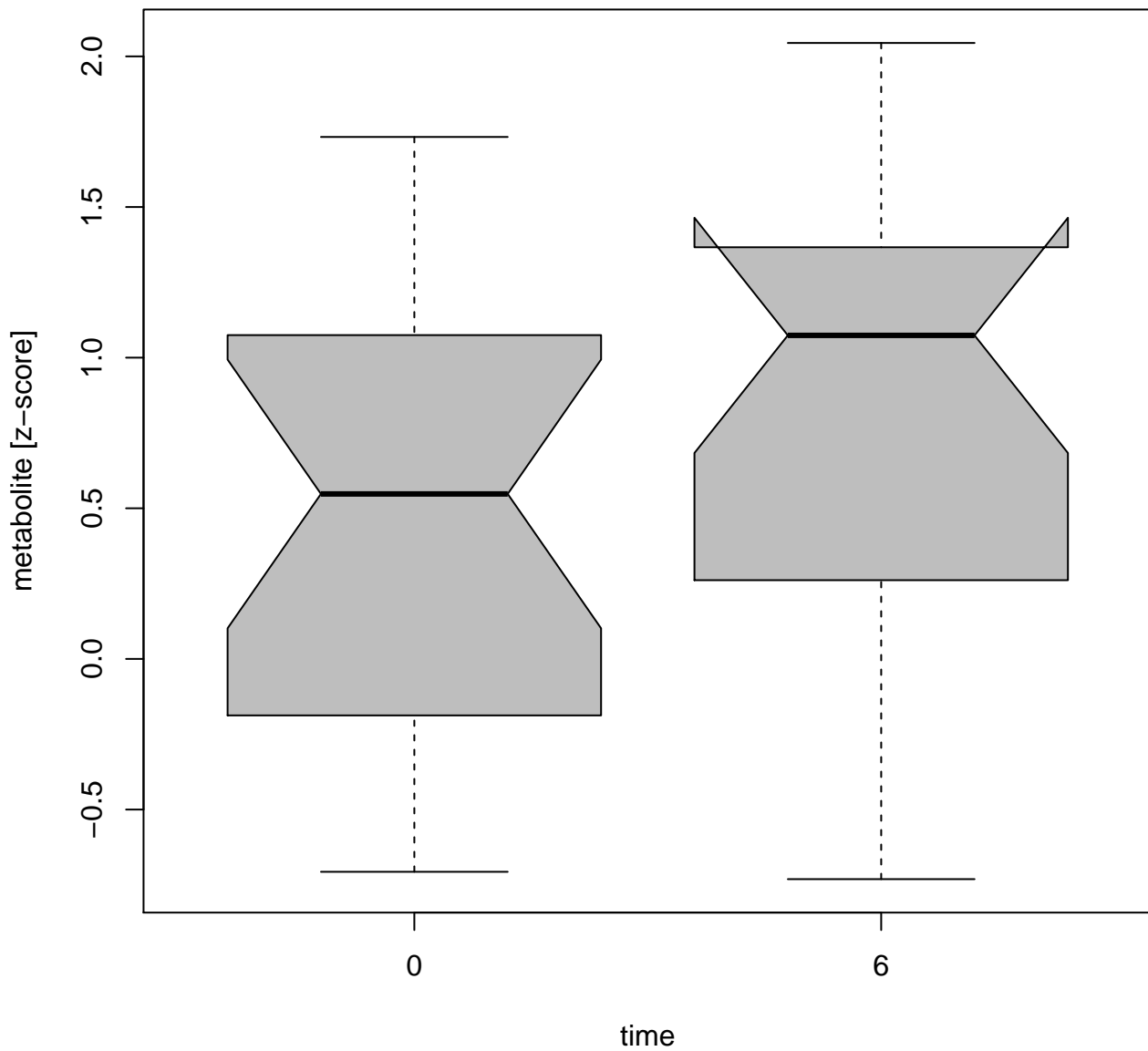
HCT15

**UDP-glucuronate**

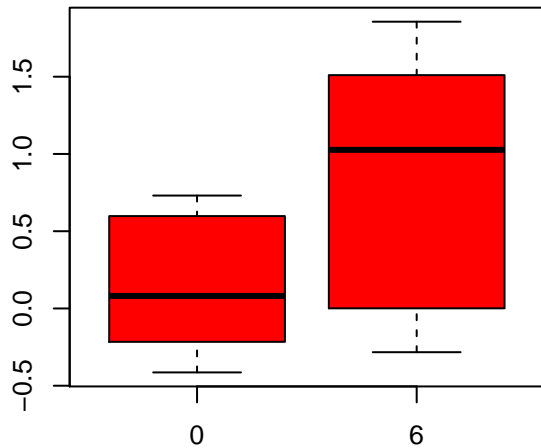


SKOV3

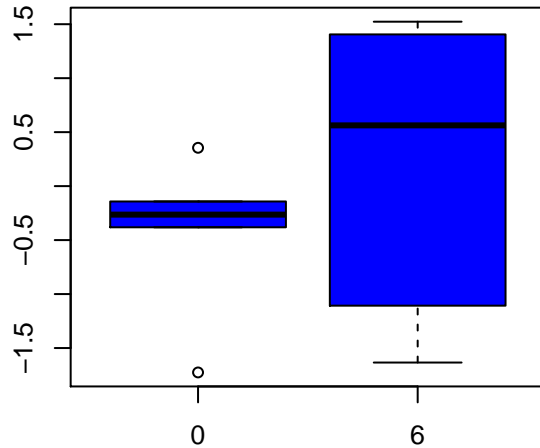
# UDP-glucuronate



**uracil**

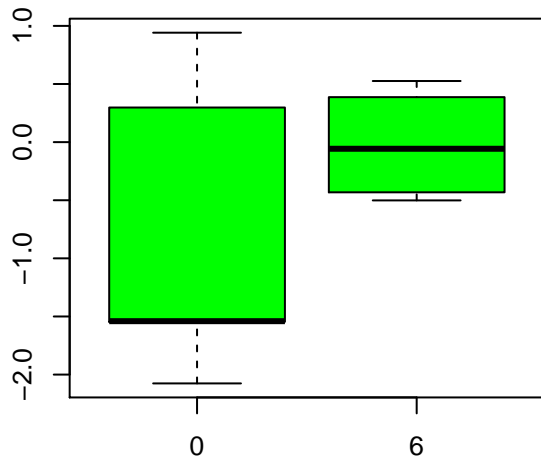


**uracil**



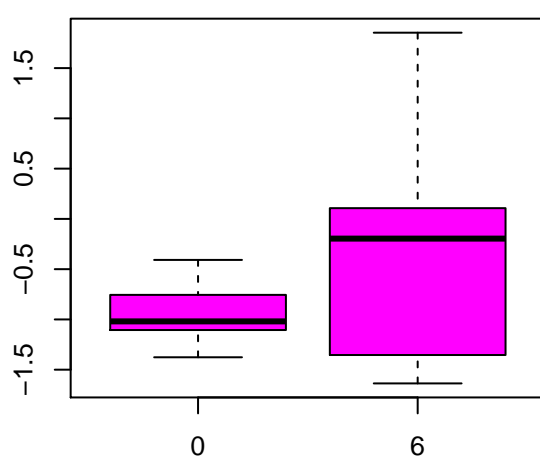
**HCT116**

**uracil**



**OVCAR**

**uracil**

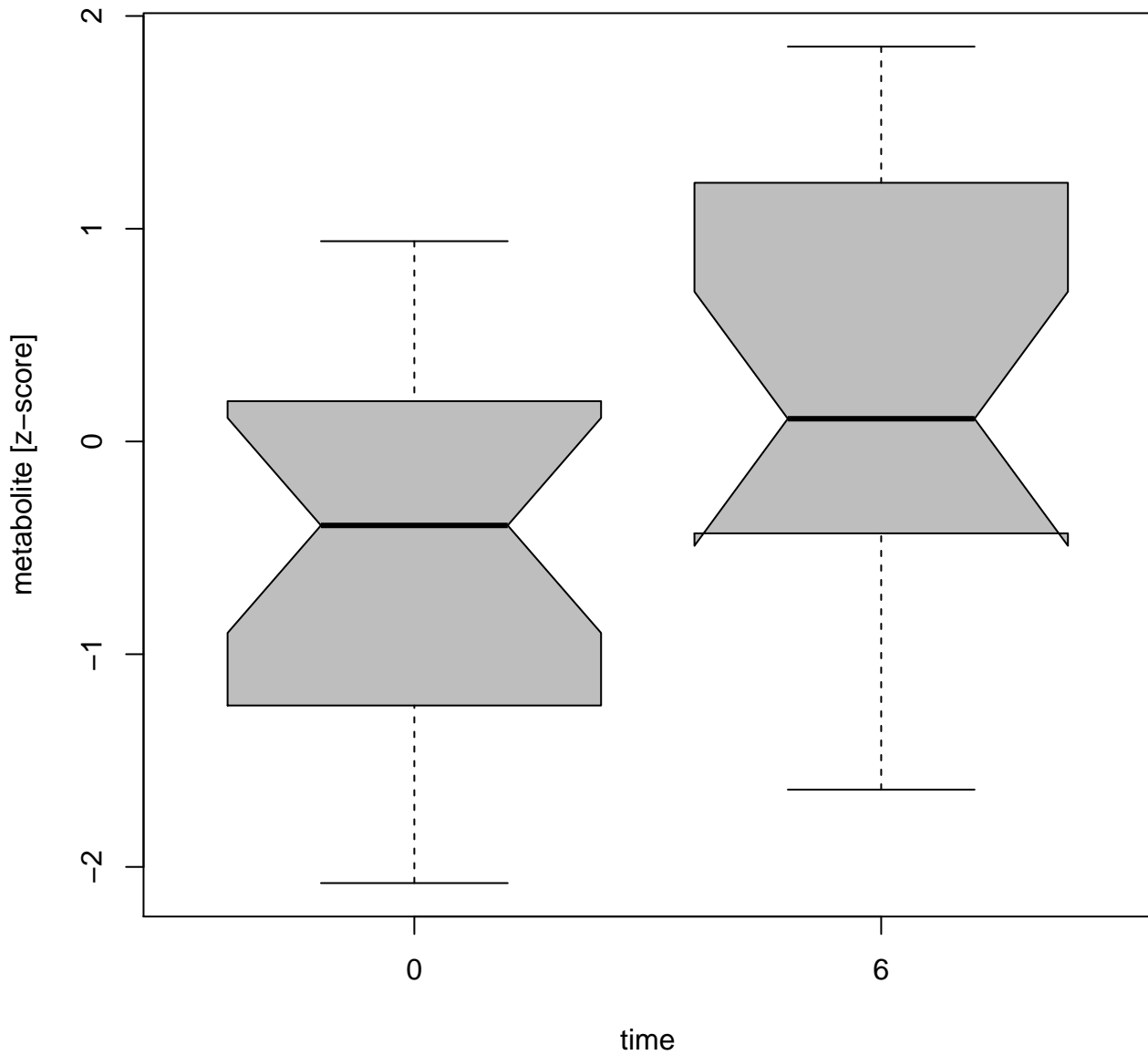


**HCT15**

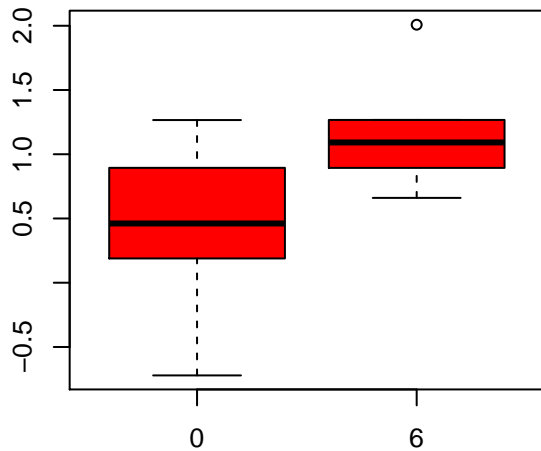
**SKOV3**



# uracil

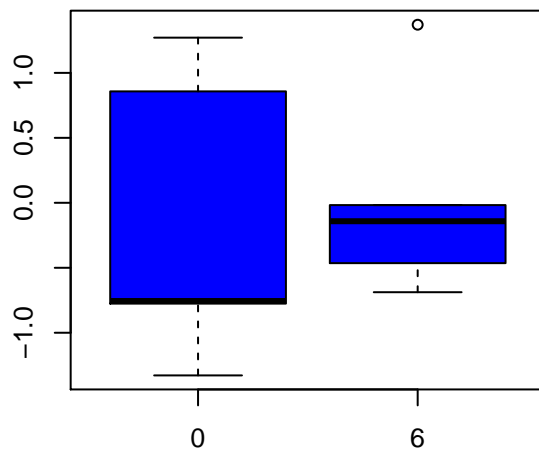


**uridine**



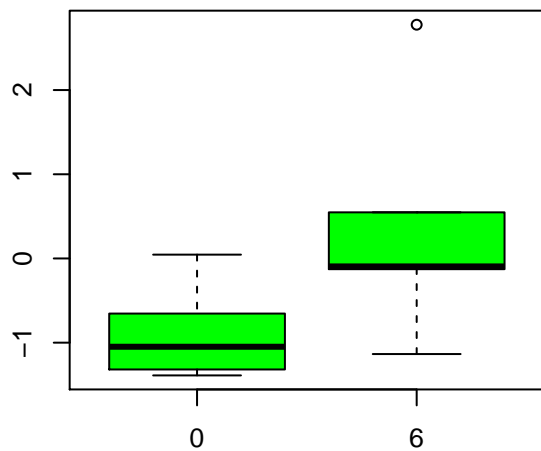
HCT116

**uridine**



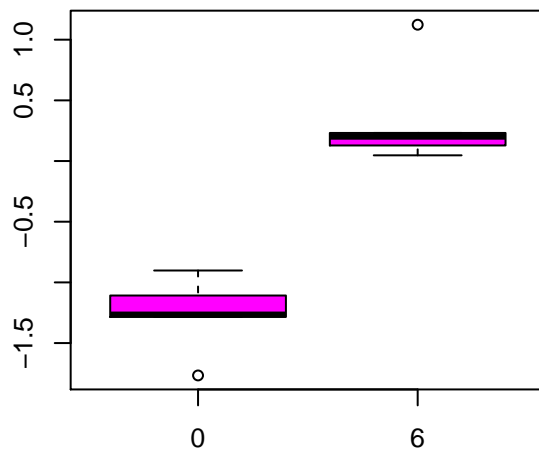
OVCAR

**uridine**



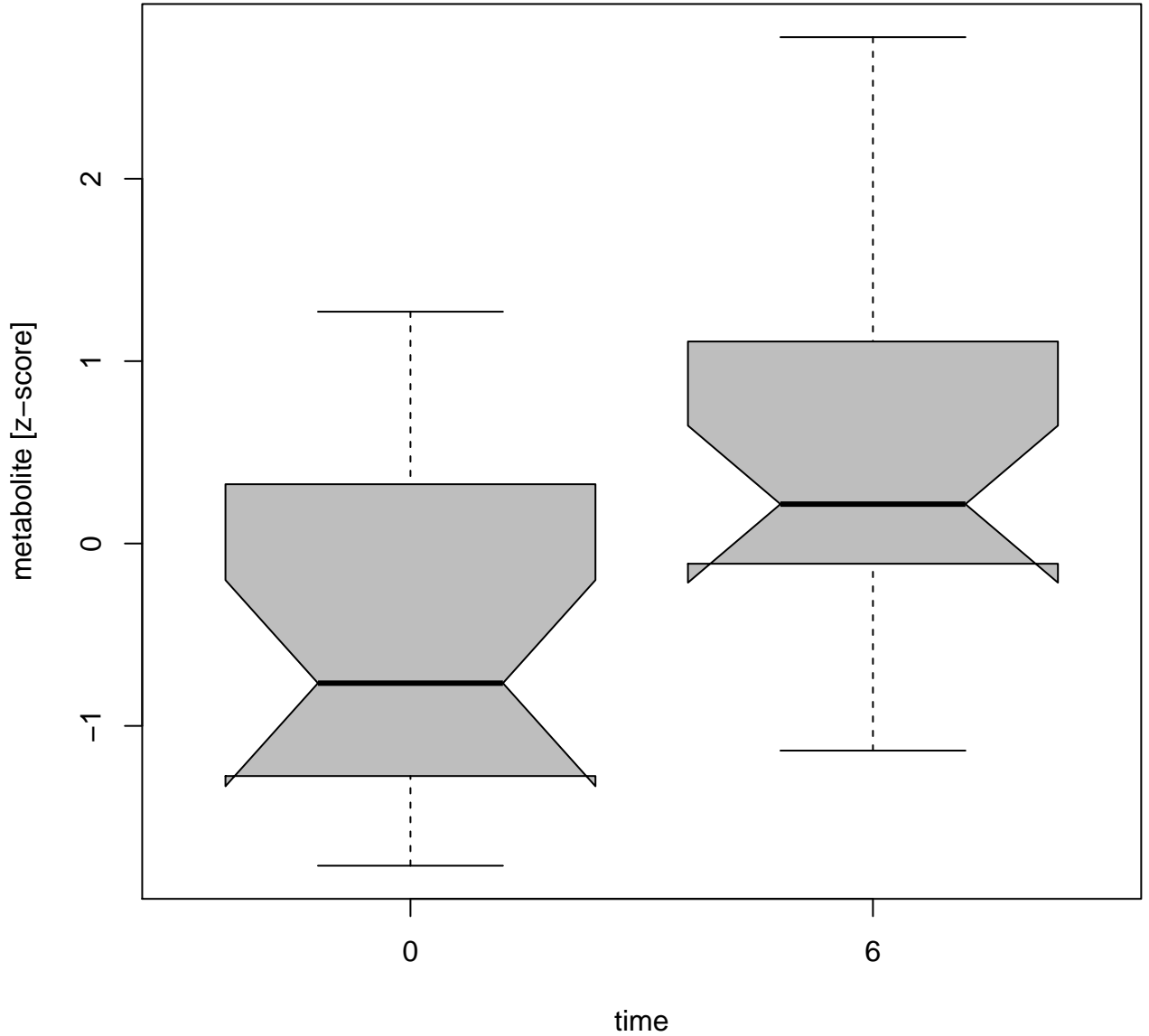
HCT15

**uridine**

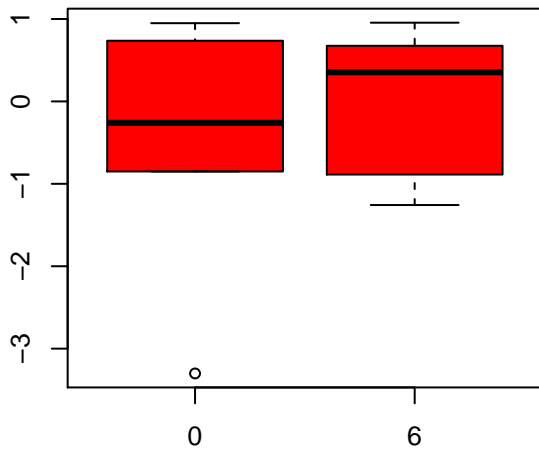


SKOV3

# uridine

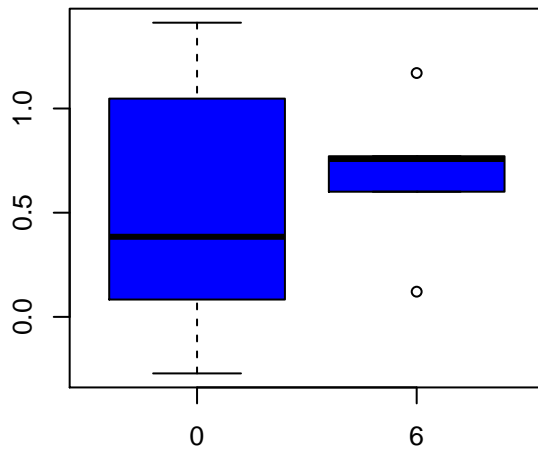


**uridine 5'-diphosphate (UDP)**



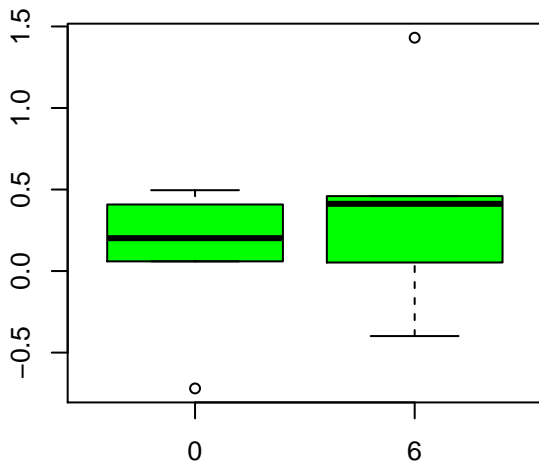
HCT116

**uridine 5'-diphosphate (UDP)**



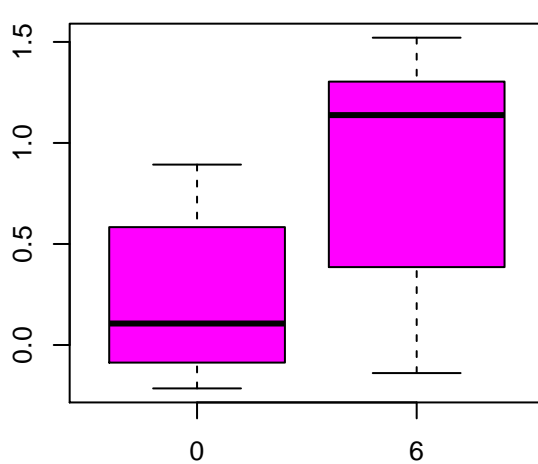
OVCAR

**uridine 5'-diphosphate (UDP)**



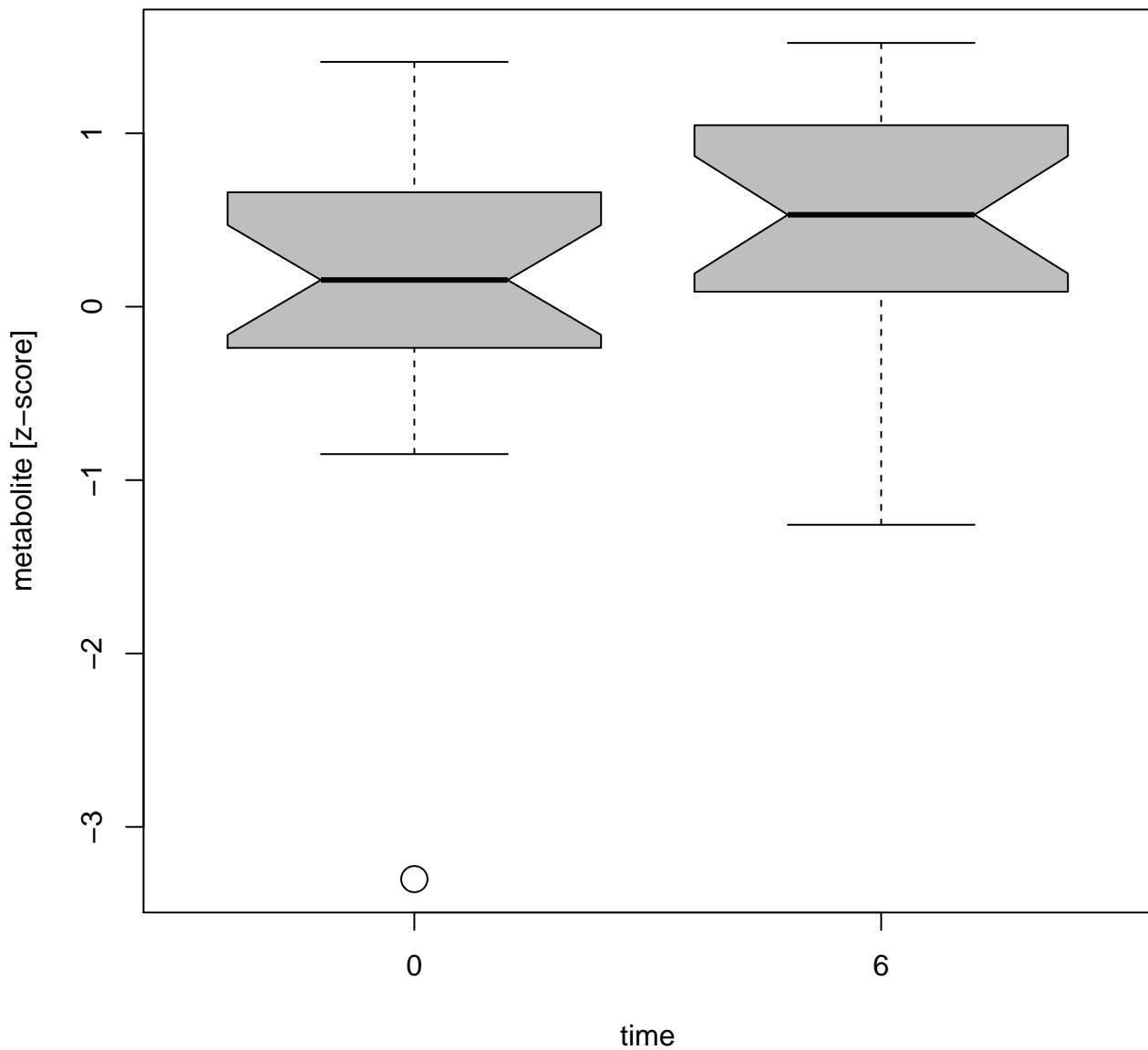
HCT15

**uridine 5'-diphosphate (UDP)**

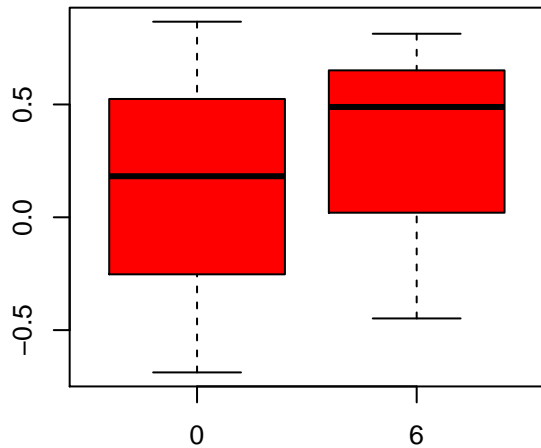


SKOV3

# uridine 5'-diphosphate (UDP)

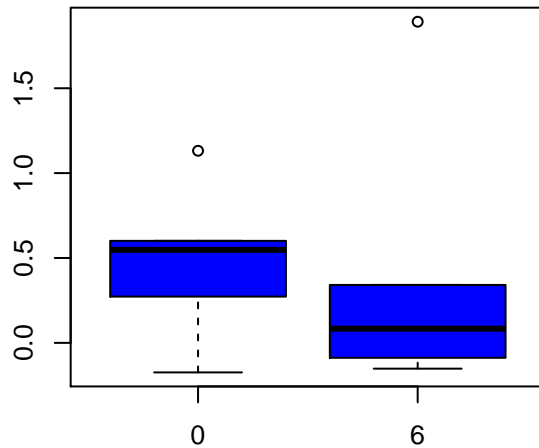


**uridine 5'-triphosphate (UTP)**



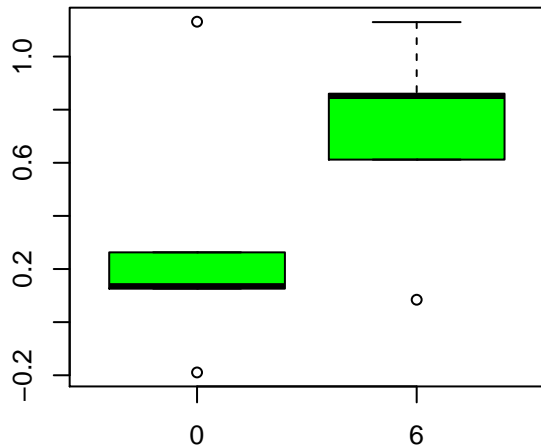
HCT116

**uridine 5'-triphosphate (UTP)**



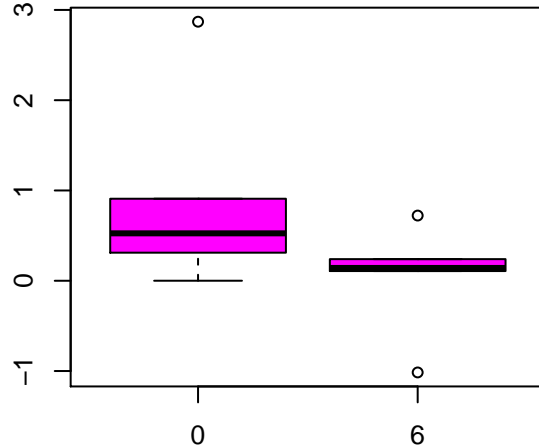
OVCAR

**uridine 5'-triphosphate (UTP)**



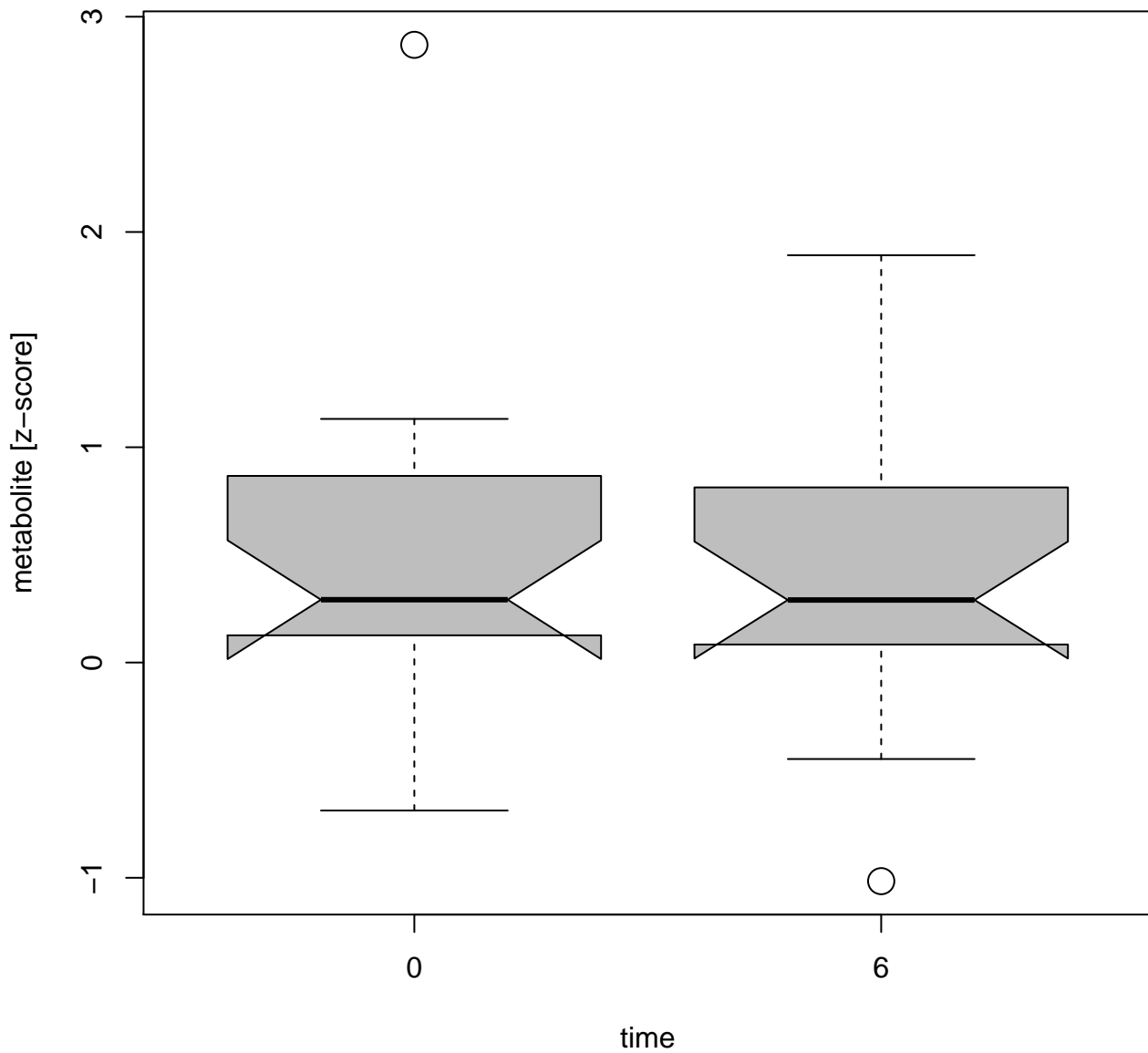
HCT15

**uridine 5'-triphosphate (UTP)**

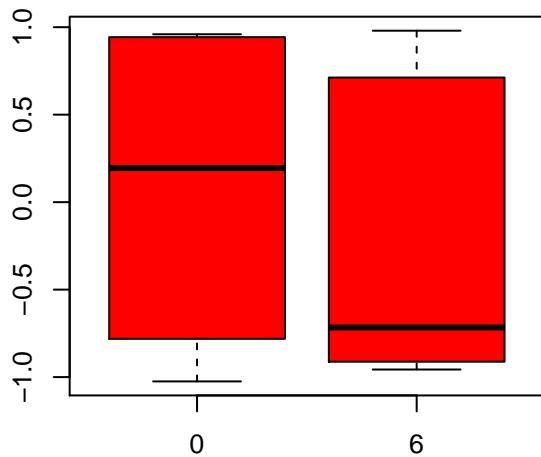


SKOV3

# uridine 5'-triphosphate (UTP)

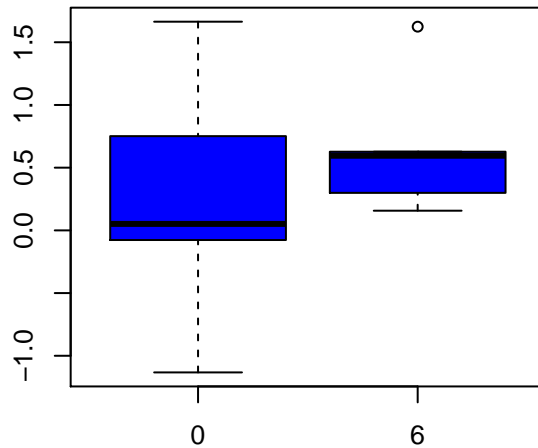


uridine monophosphate (5' or 3')



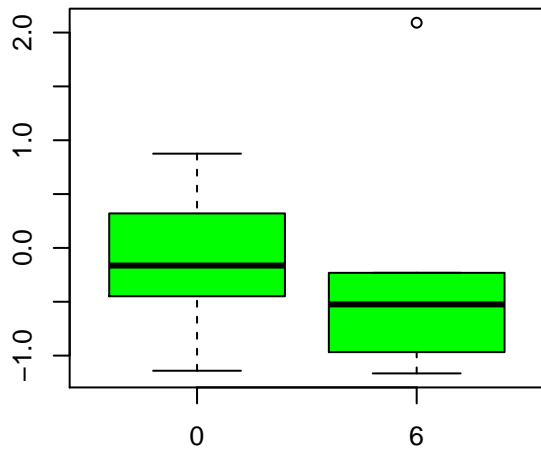
HCT116

uridine monophosphate (5' or 3')



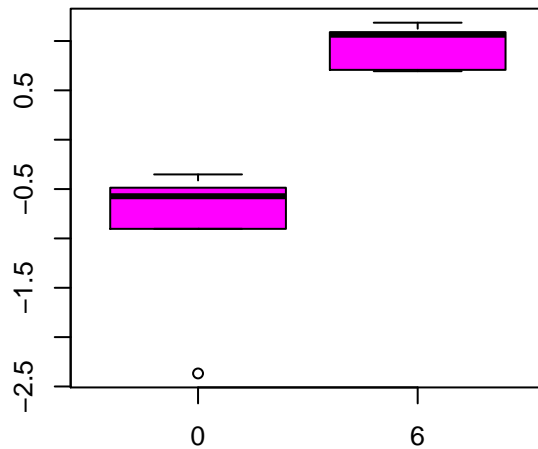
OVCAR

uridine monophosphate (5' or 3')



HCT15

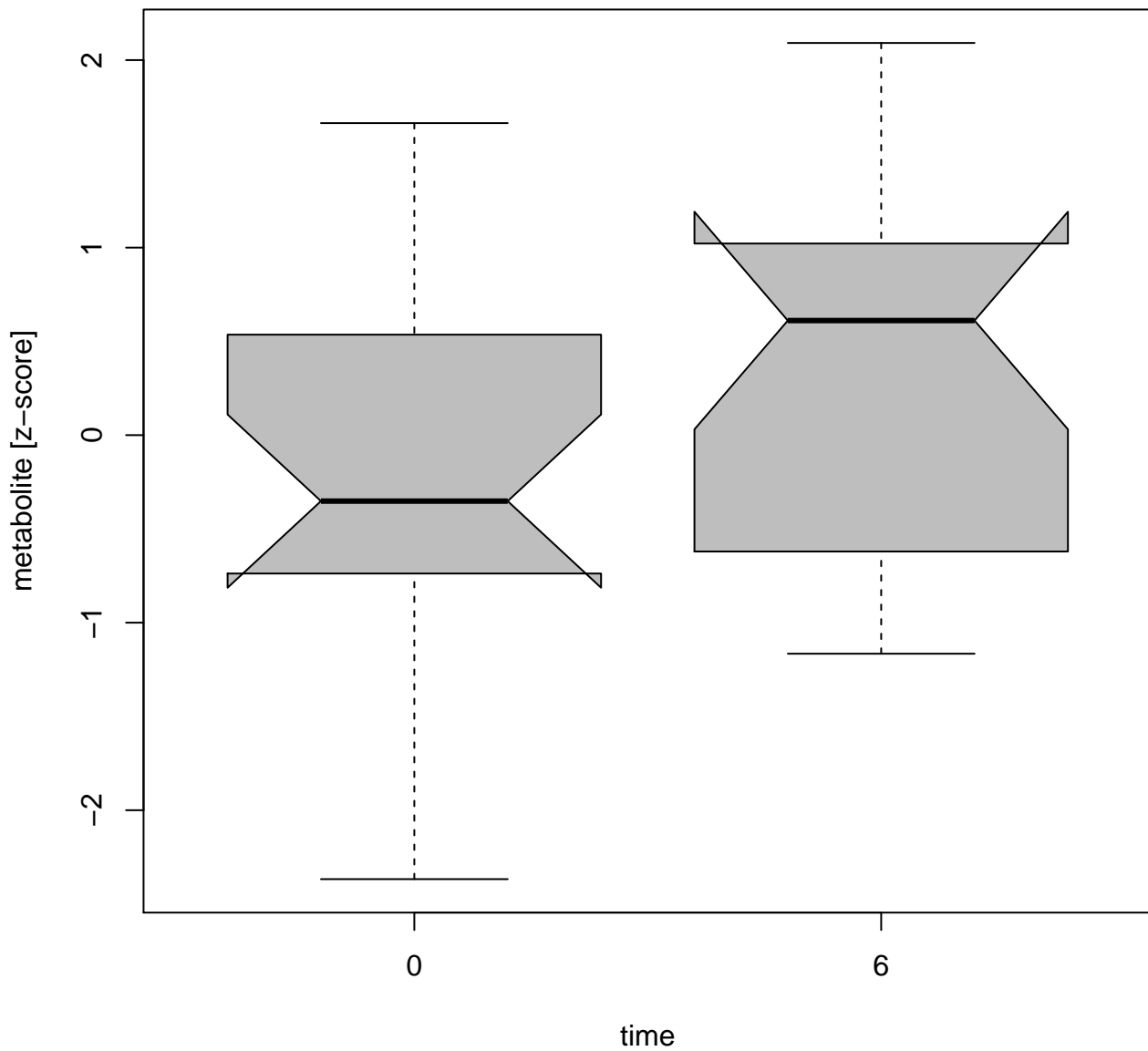
uridine monophosphate (5' or 3')



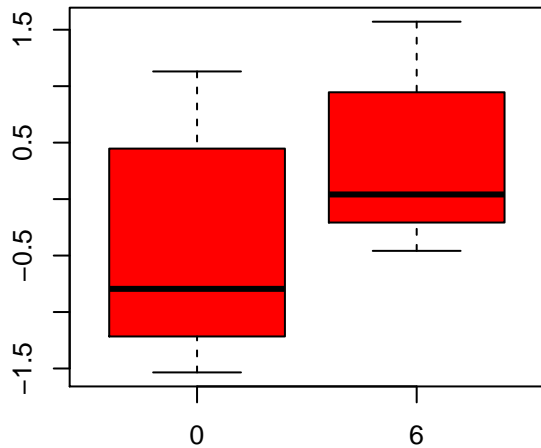
SKOV3



# uridine monophosphate (5' or 3')

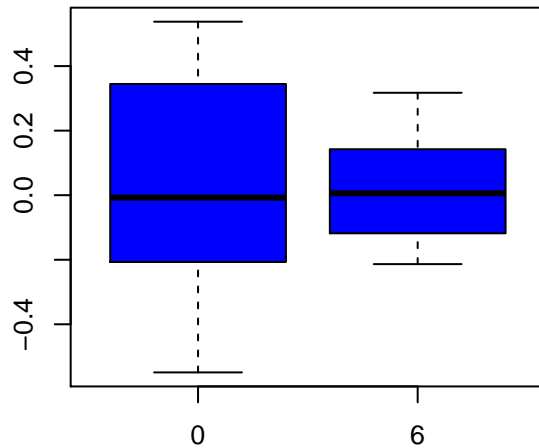


**valine**



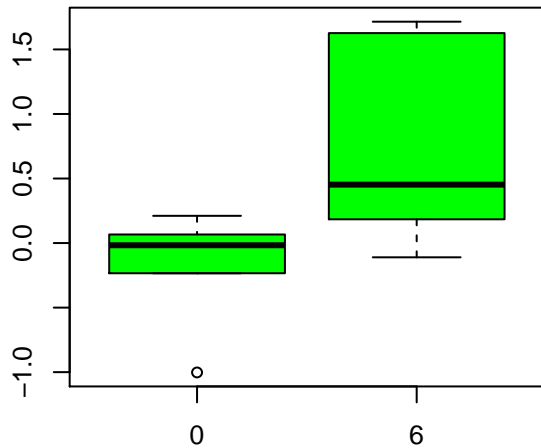
HCT116

**valine**



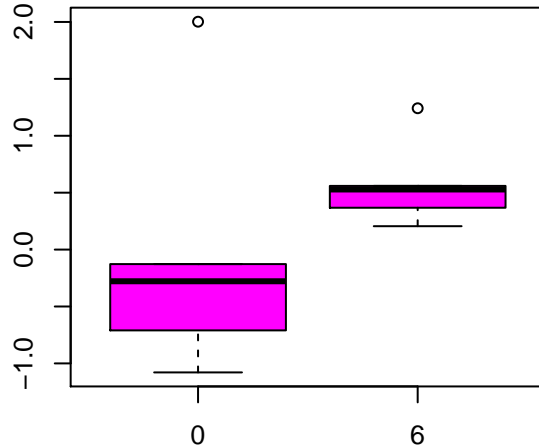
OVCAR

**valine**



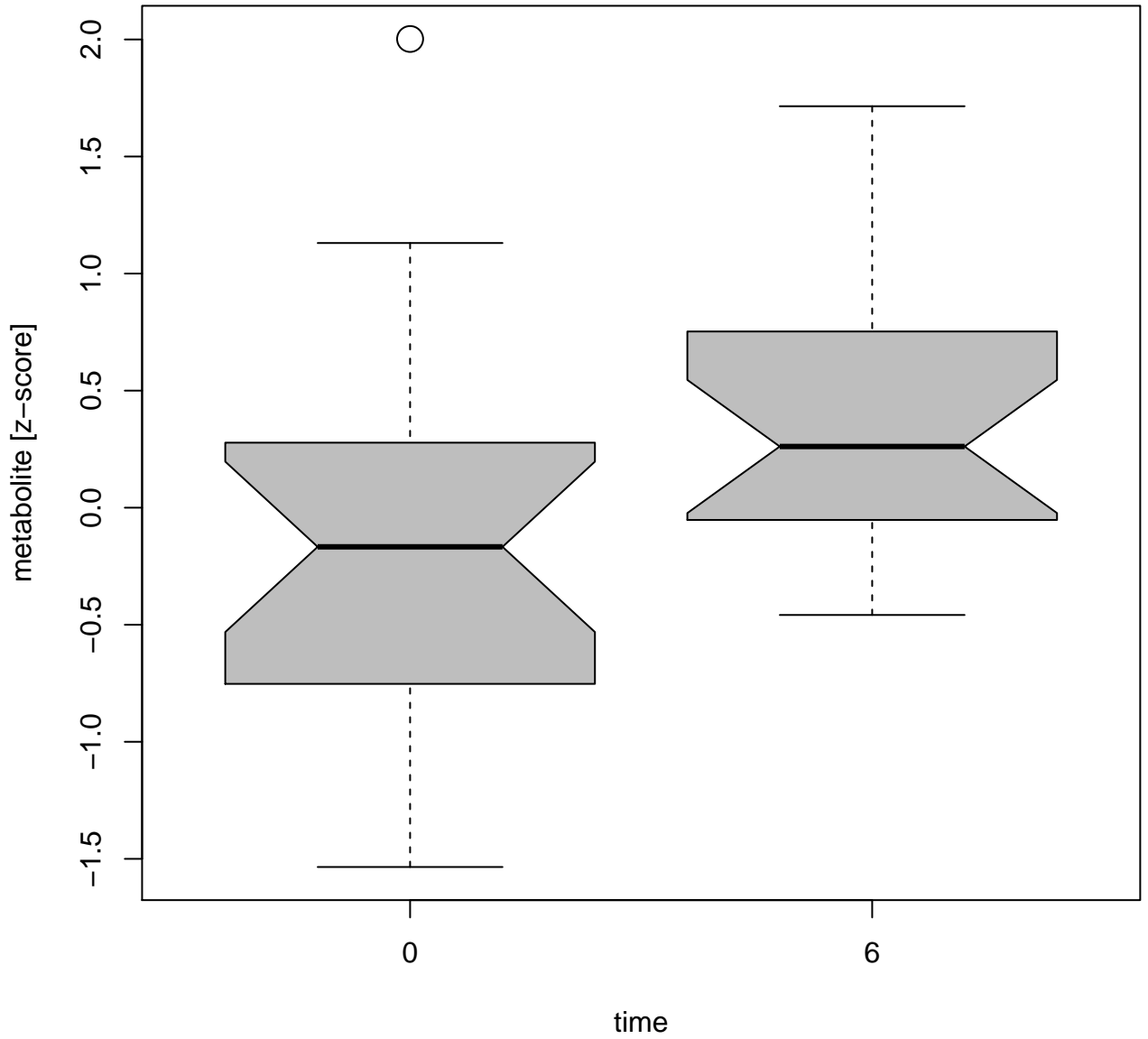
HCT15

**valine**

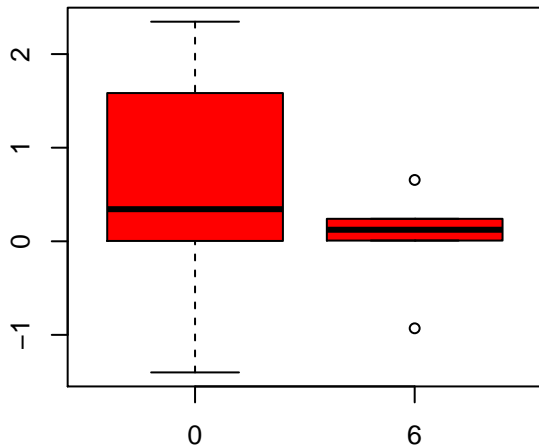


SKOV3

# valine

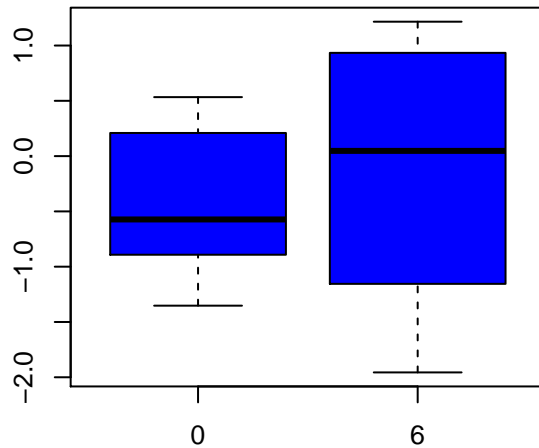


**valylaspartate**



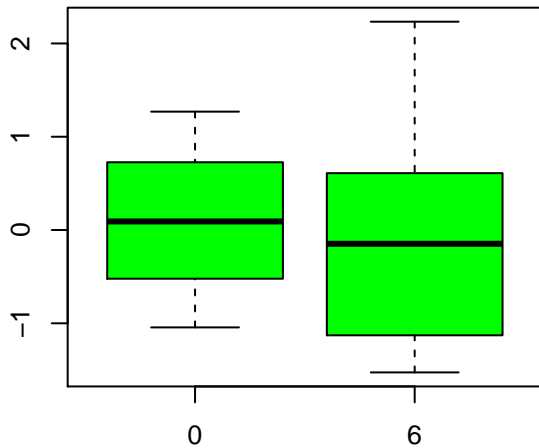
HCT116

**valylaspartate**



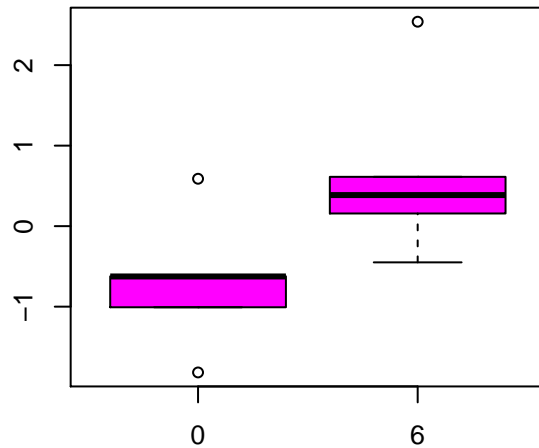
OVCAR

**valylaspartate**



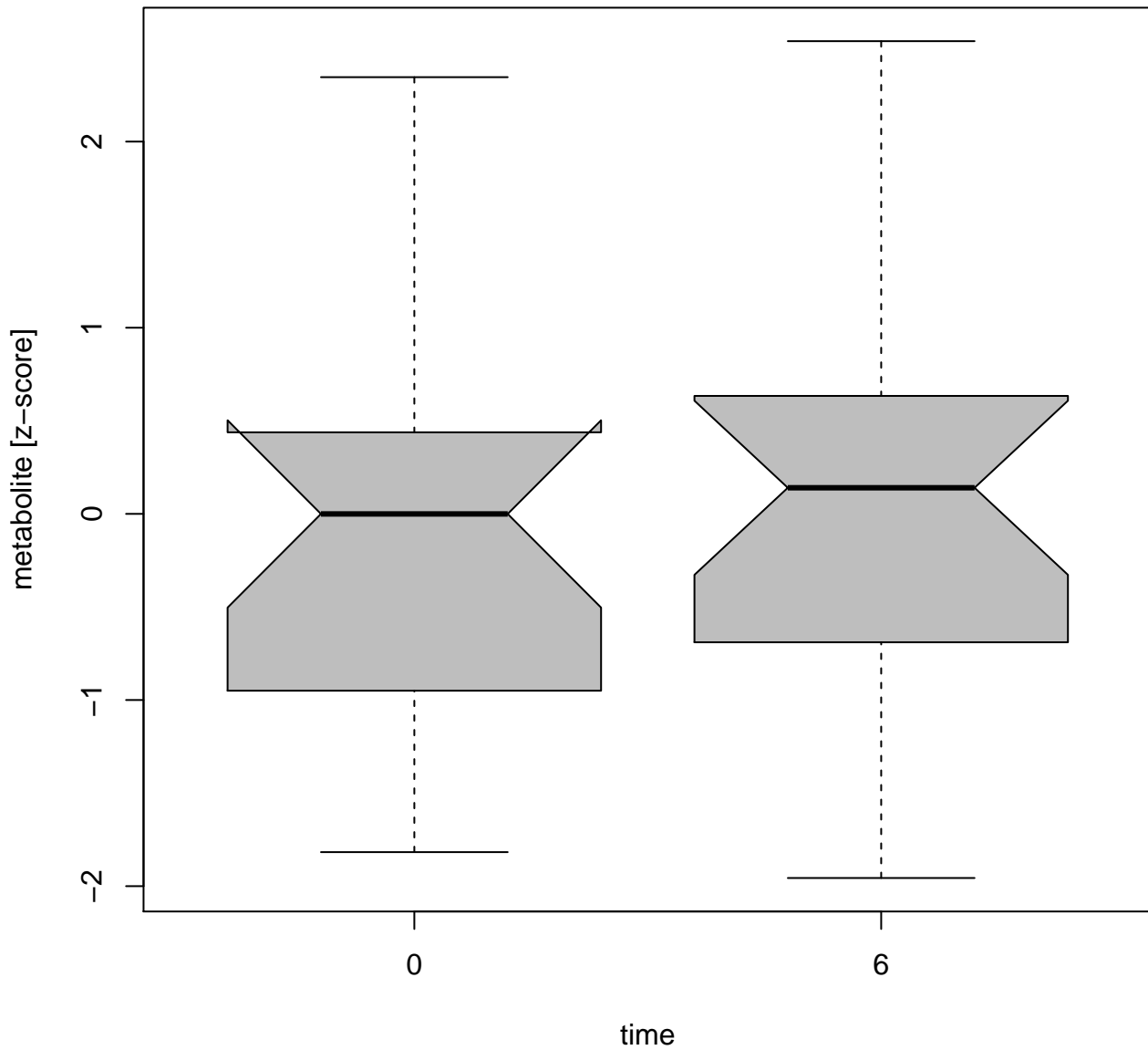
HCT15

**valylaspartate**

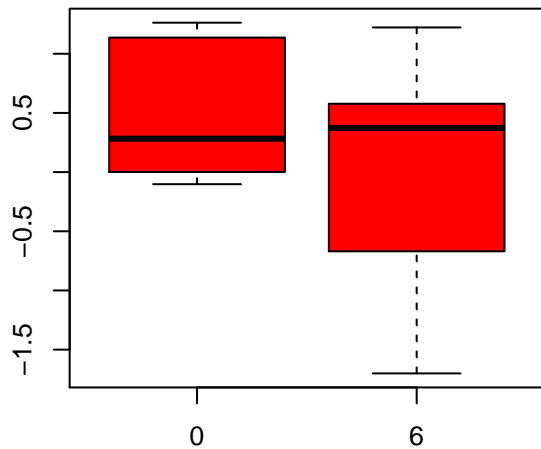


SKOV3

# valylaspartate

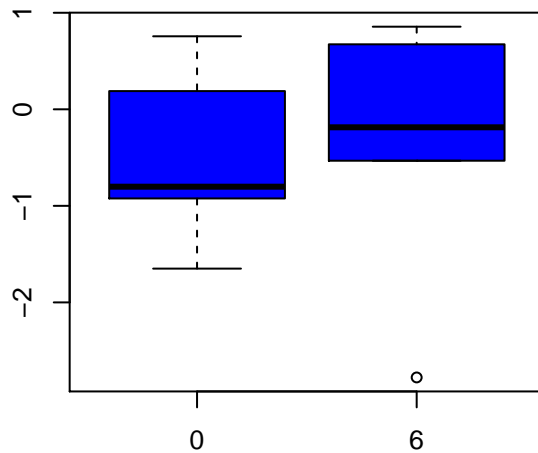


**valylleucine**



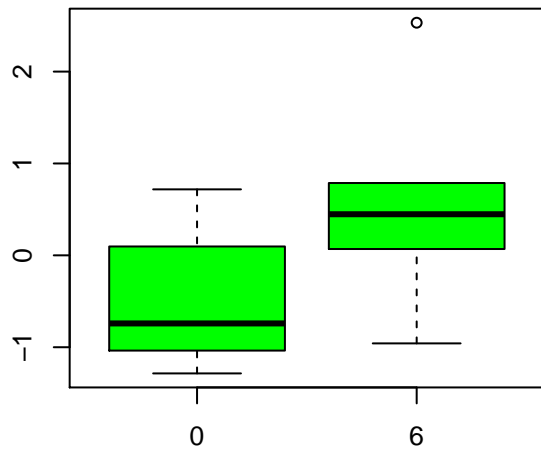
HCT116

**valylleucine**



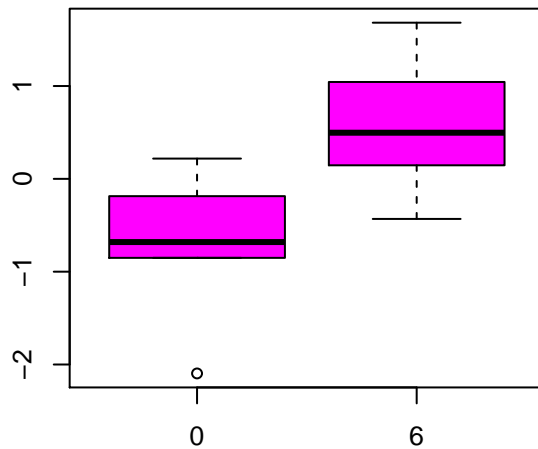
OVCAR

**valylleucine**



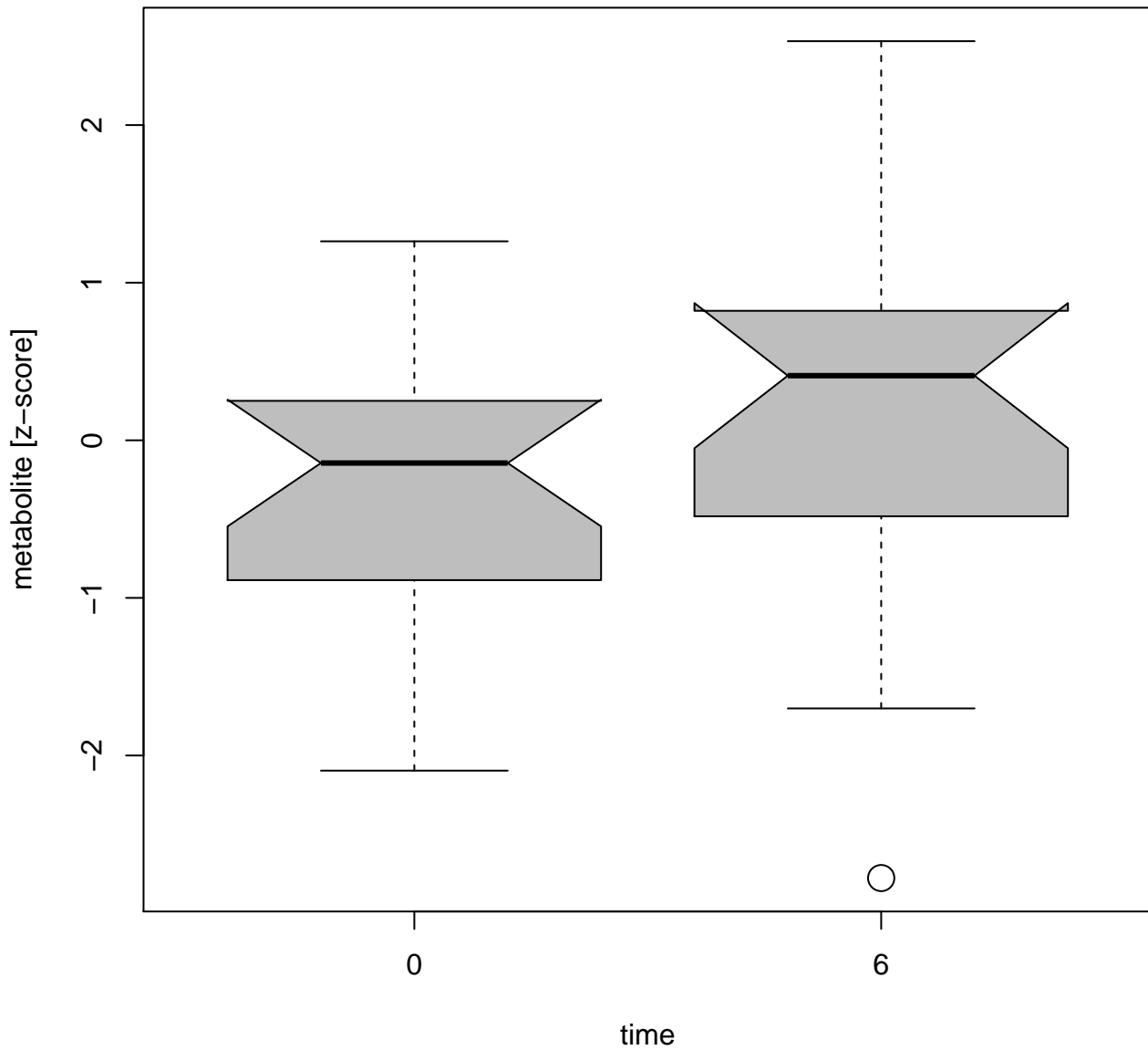
HCT15

**valylleucine**

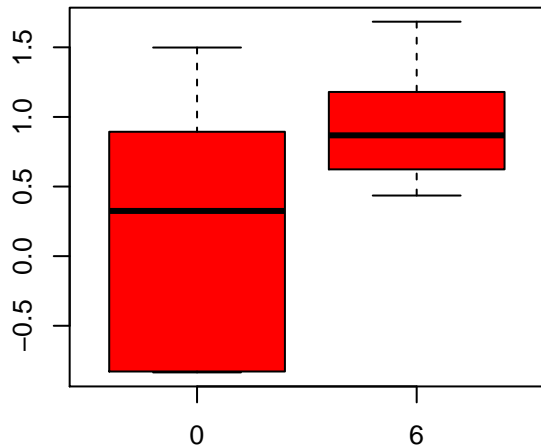


SKOV3

# valylleucine

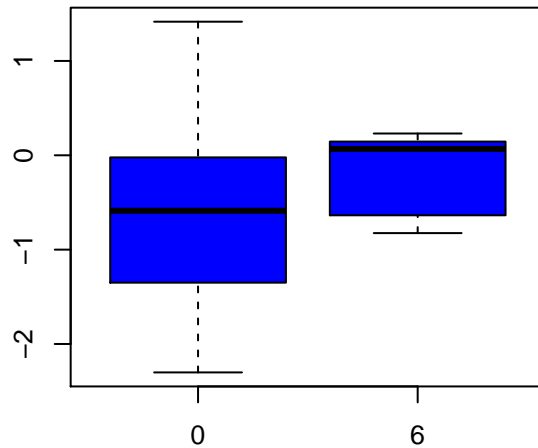


**xanthine**



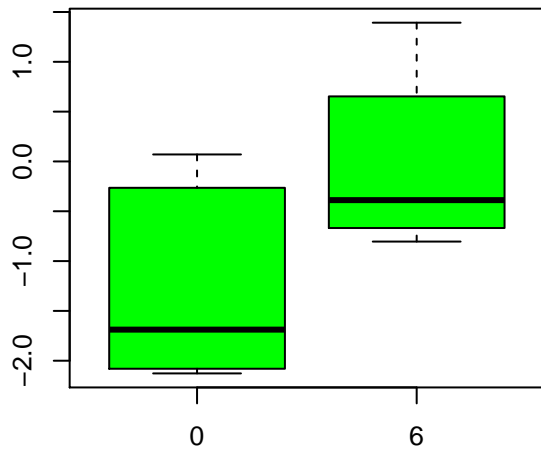
HCT116

**xanthine**



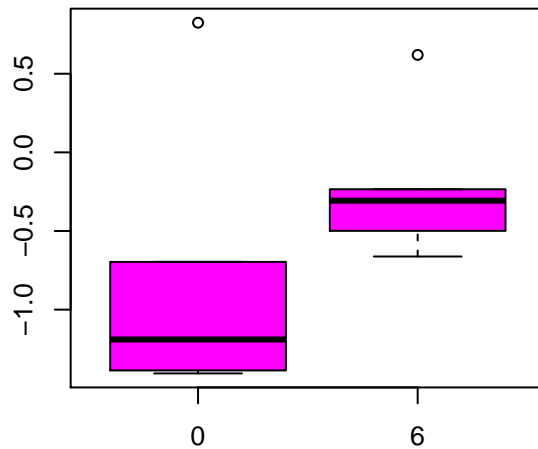
OVCAR

**xanthine**



HCT15

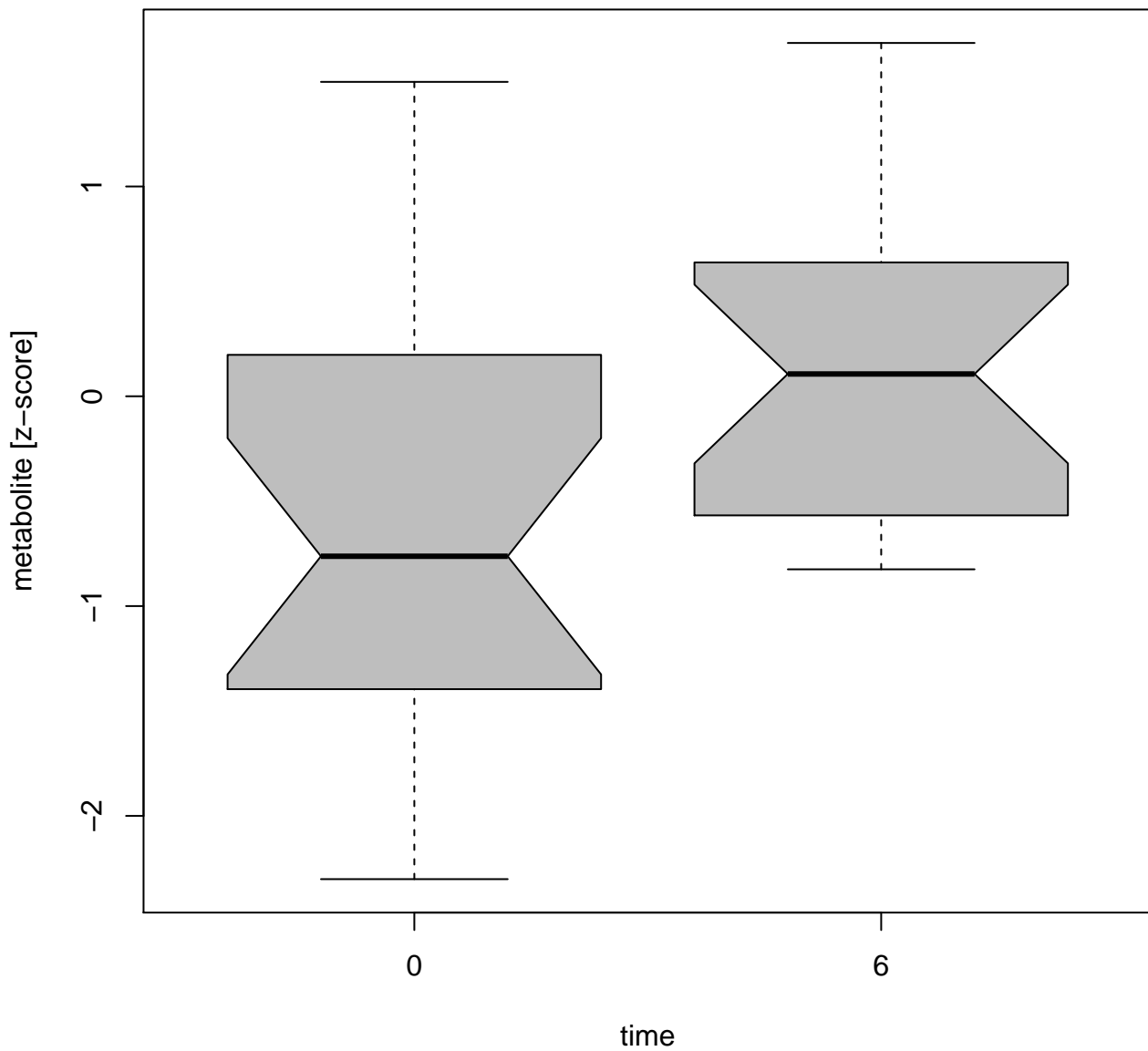
**xanthine**



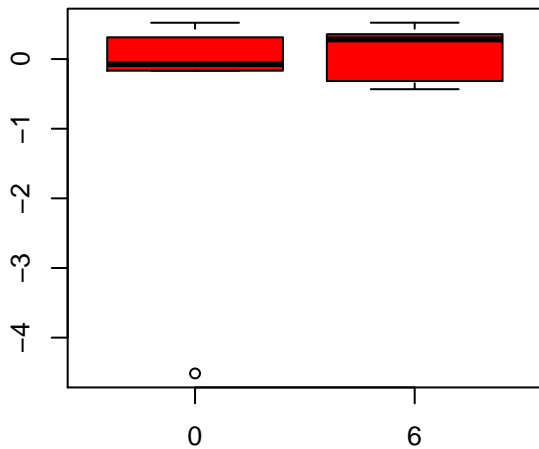
SKOV3



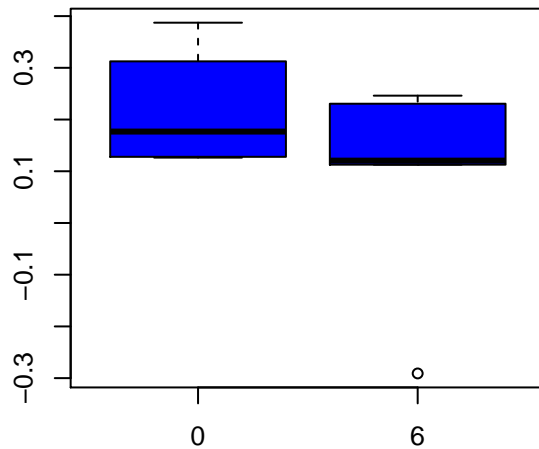
# xanthine



**X - 11304**

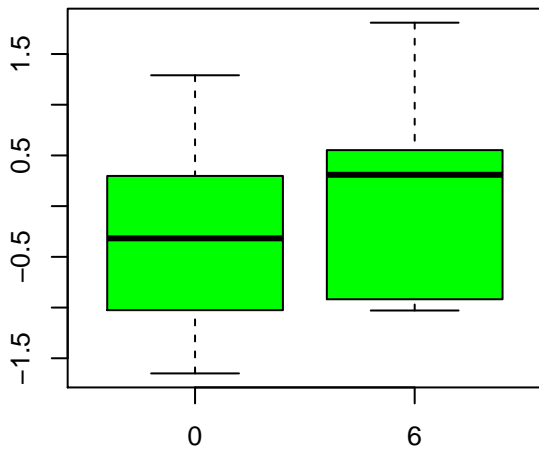


**X - 11304**



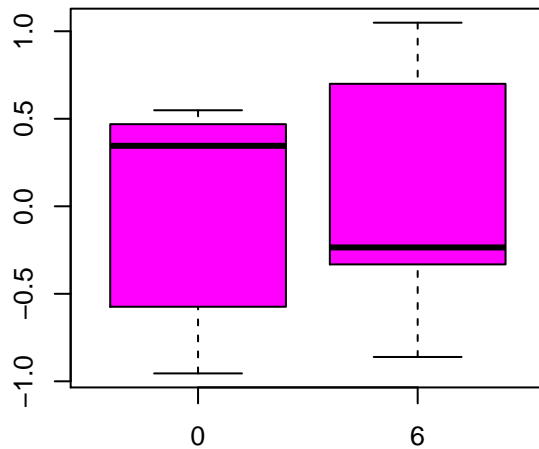
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**X - 11304**



**OVCAR**

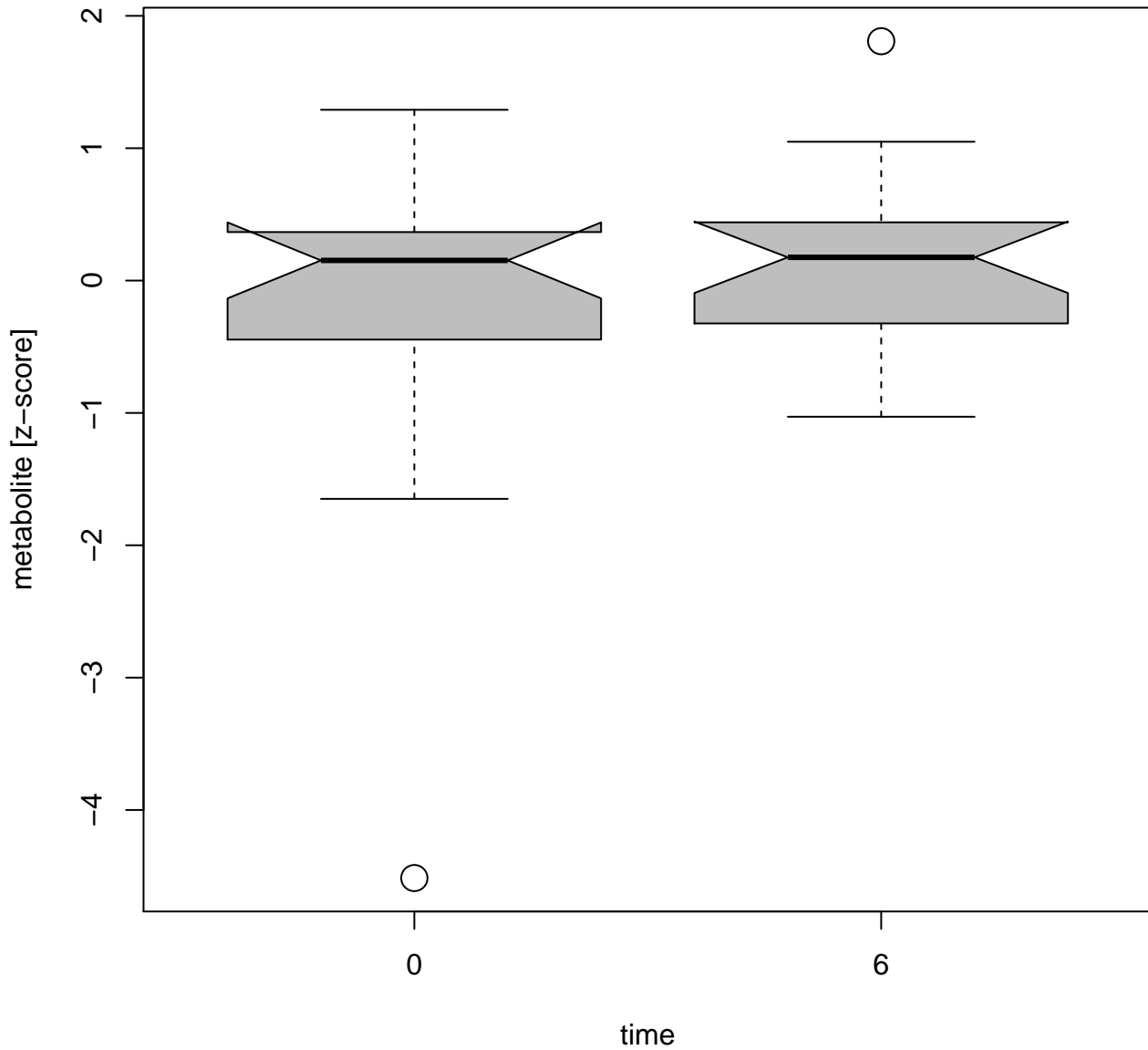
**X - 11304**



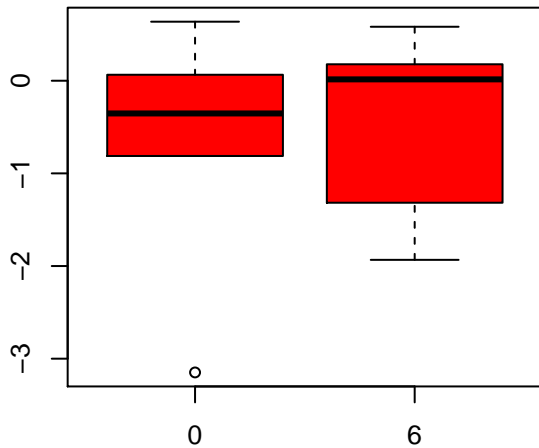
**HCT15**

**SKOV3**

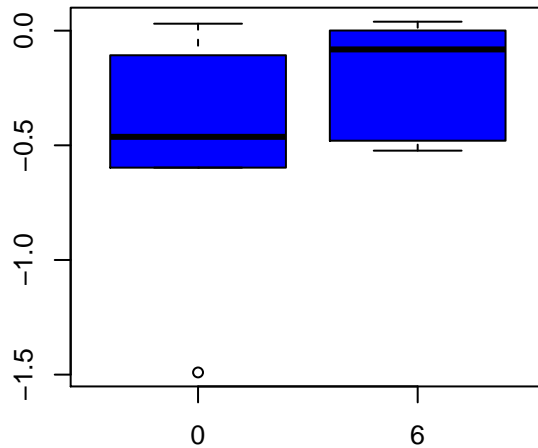
# X - 11304



**X - 11583**



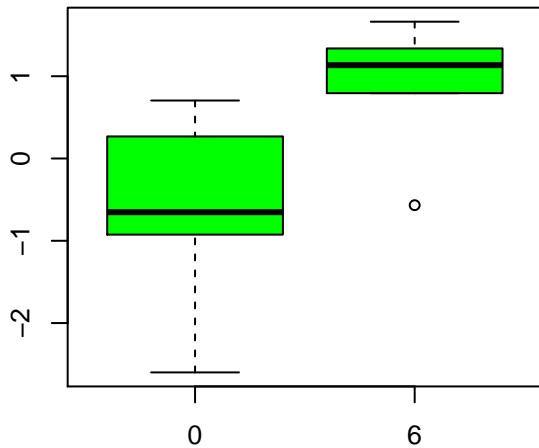
**X - 11583**



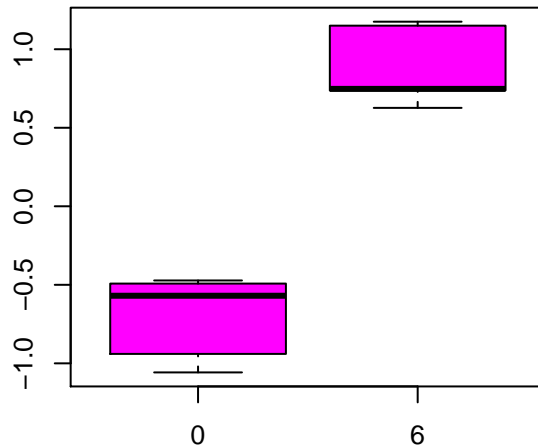
HCT116

OVCAR

**X - 11583**



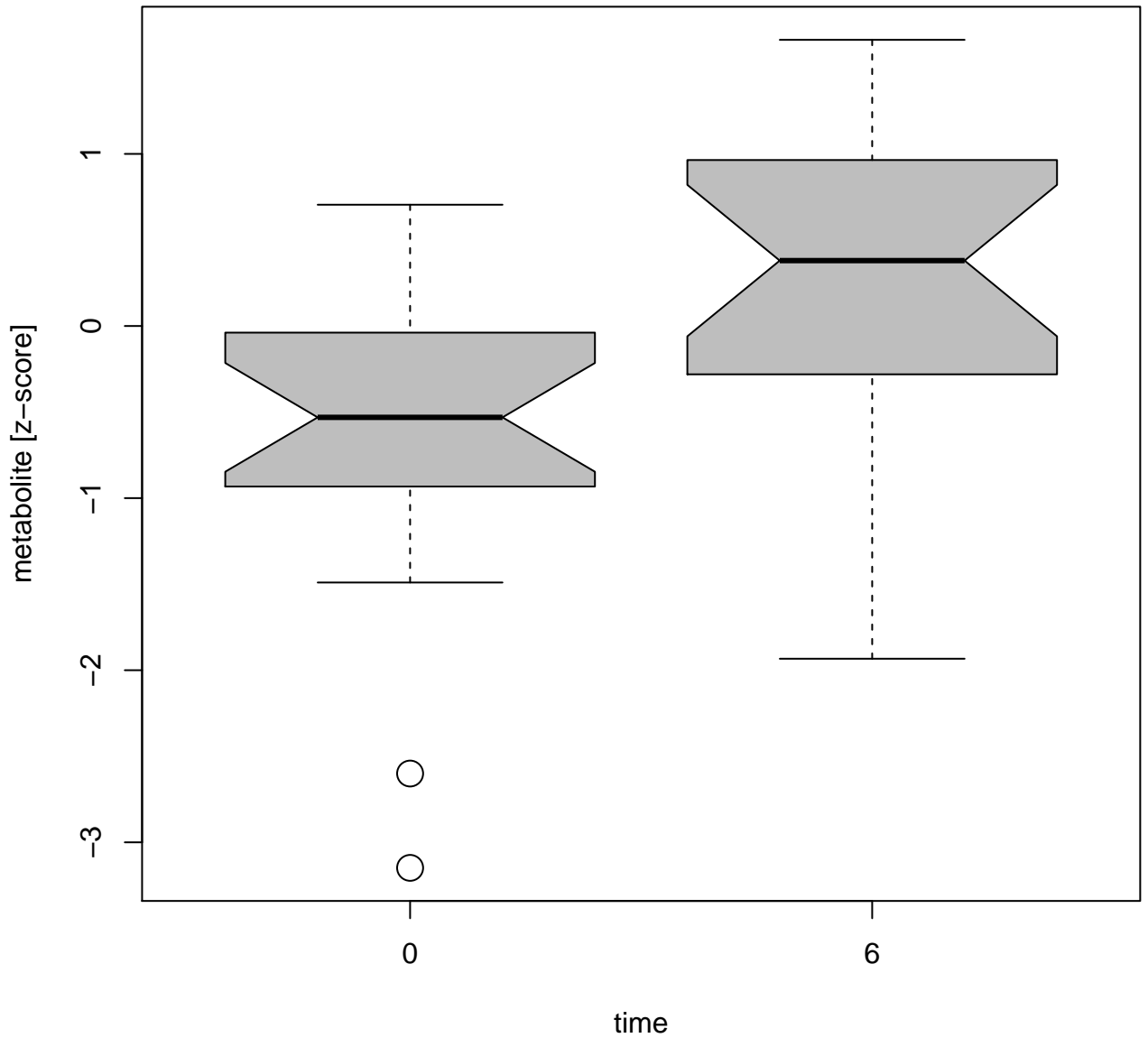
**X - 11583**



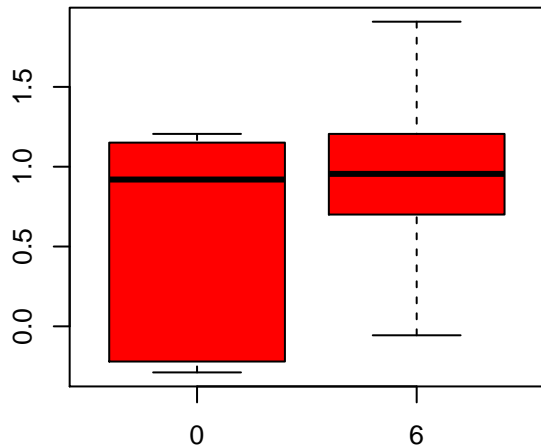
HCT15

SKOV3

# X - 11583

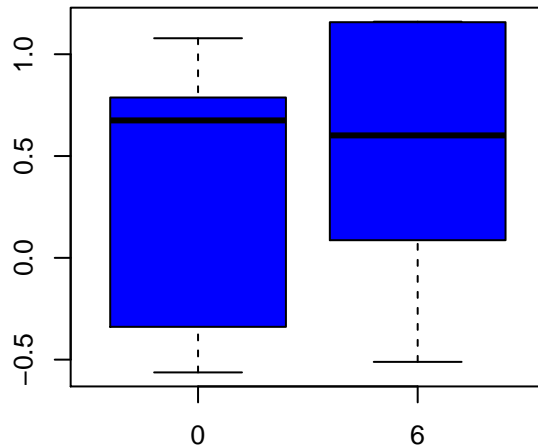


**X - 11677**



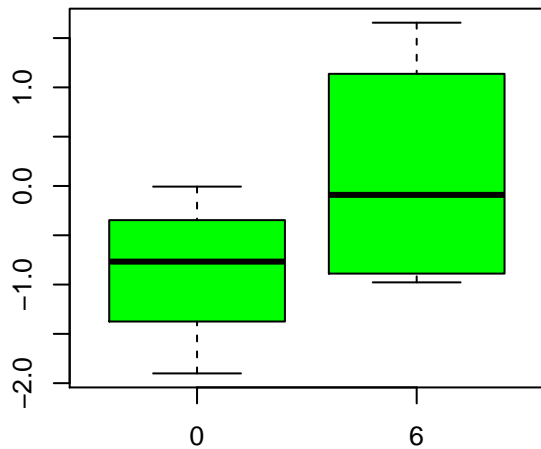
HCT116

**X - 11677**



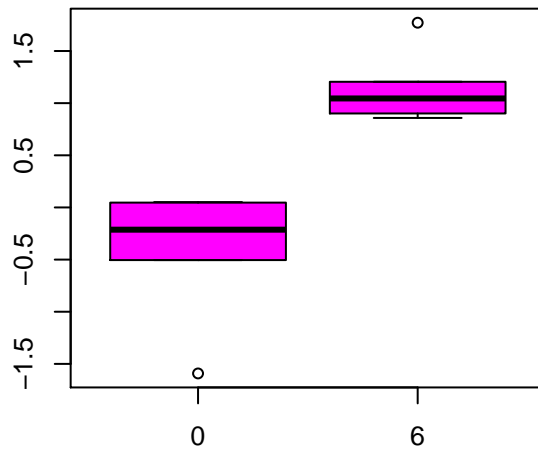
OVCAR

**X - 11677**



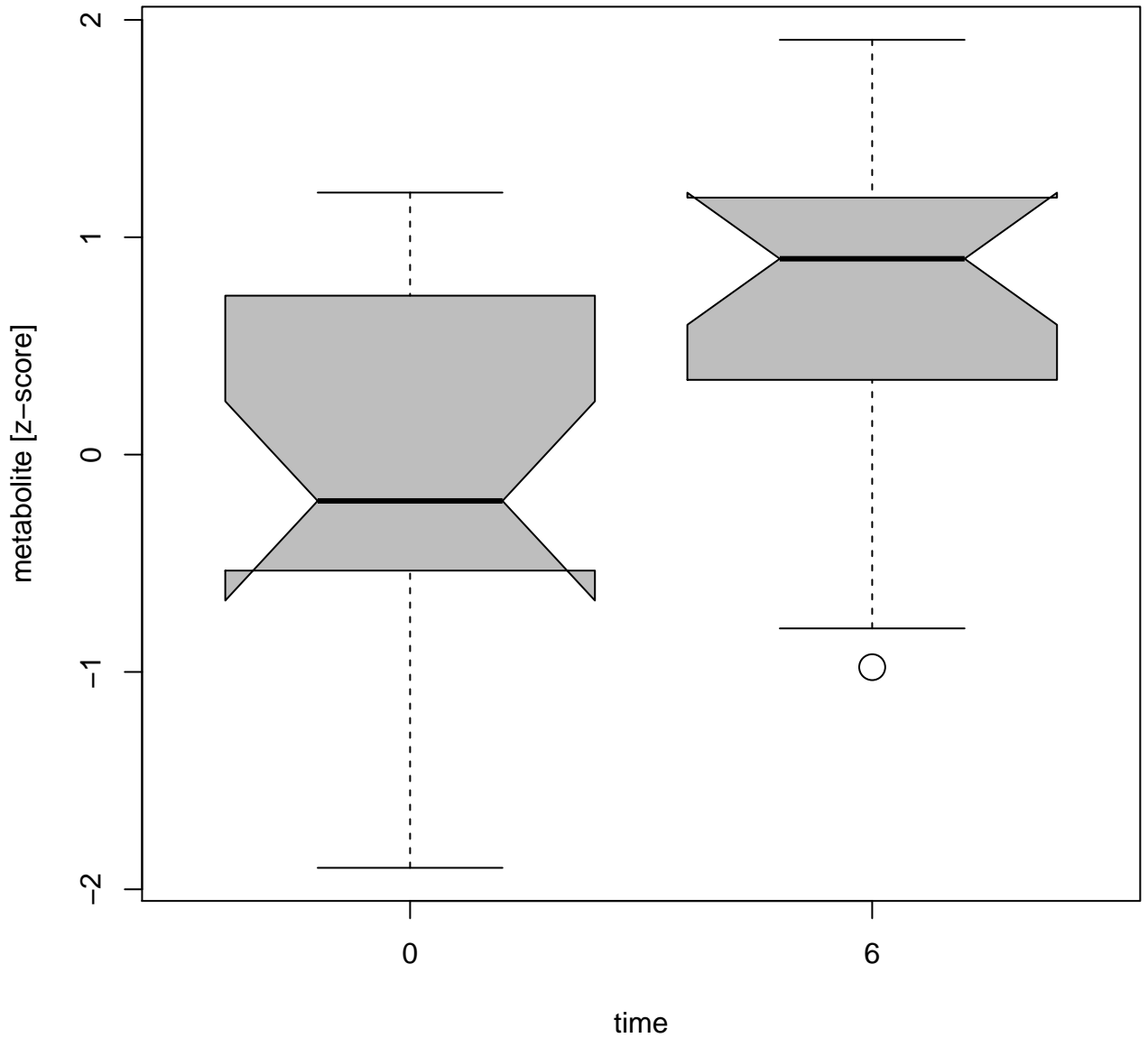
HCT15

**X - 11677**

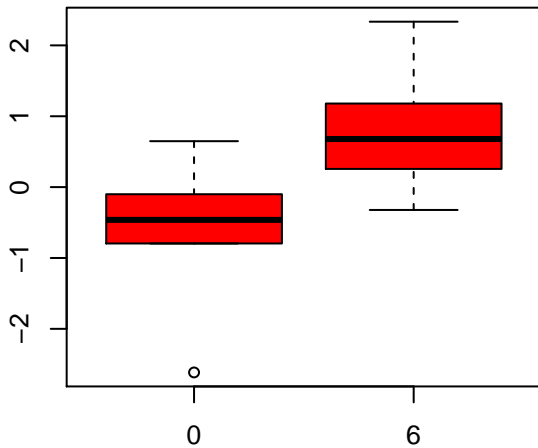


SKOV3

# X - 11677

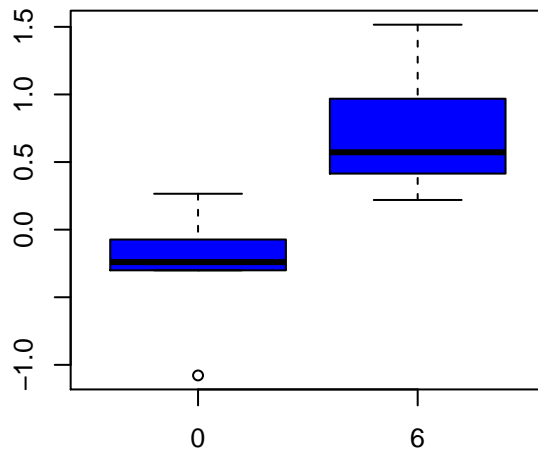


**X - 12792**



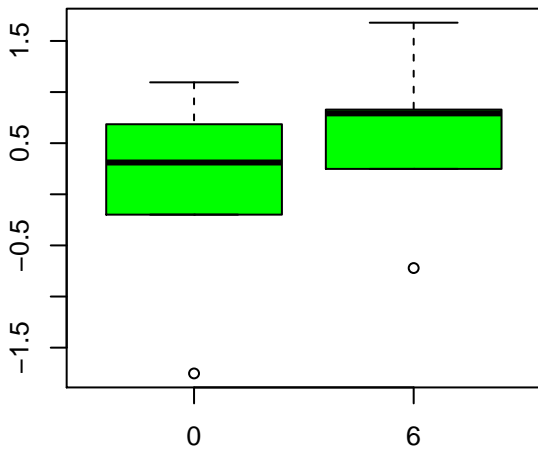
HCT116

**X - 12792**



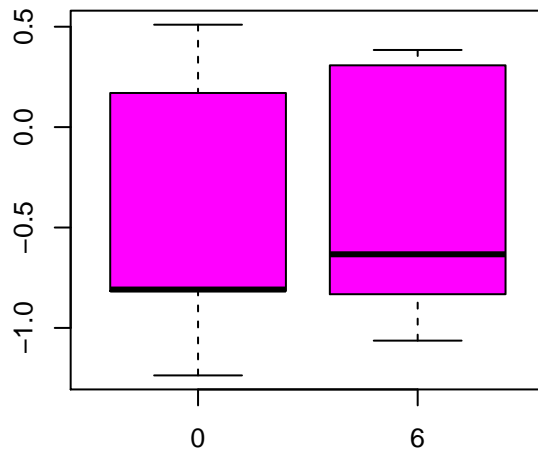
OVCAR

**X - 12792**



HCT15

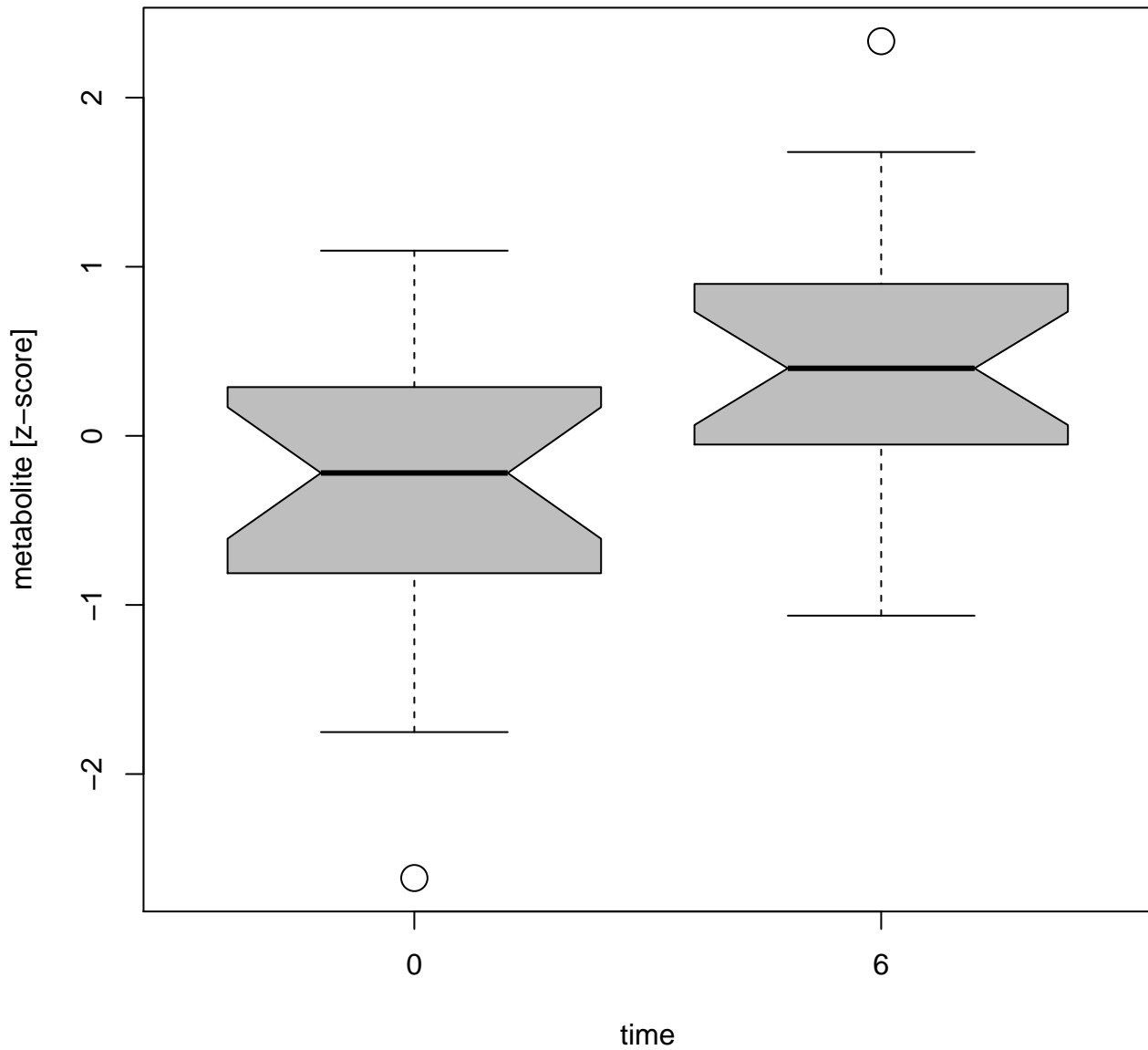
**X - 12792**



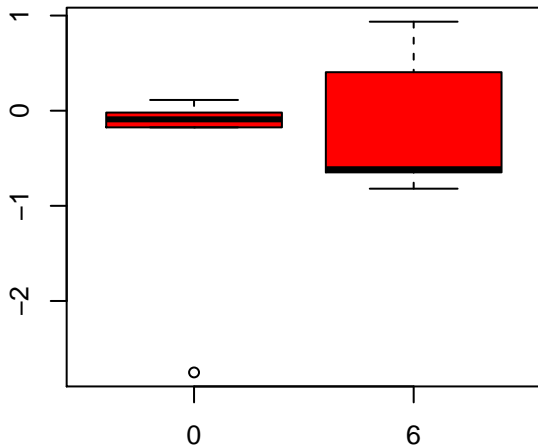
SKOV3



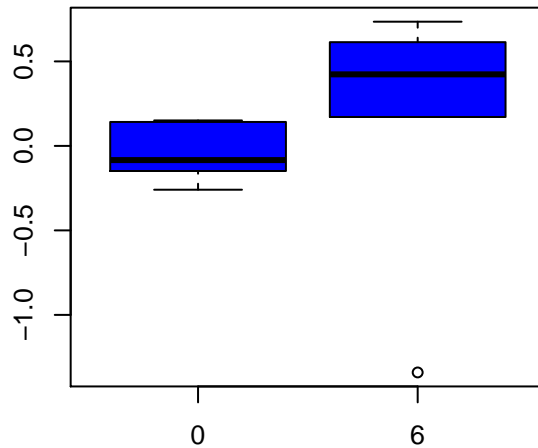
# X - 12792



**X - 13230**



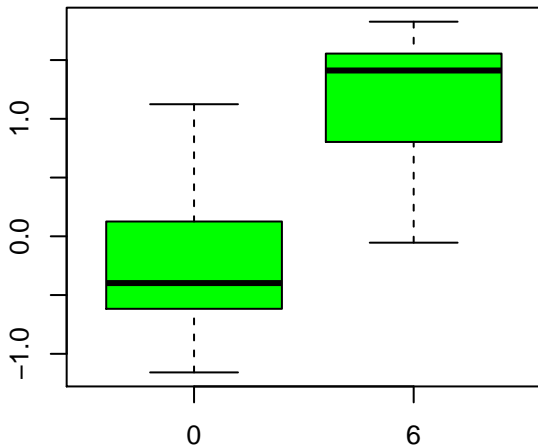
**X - 13230**



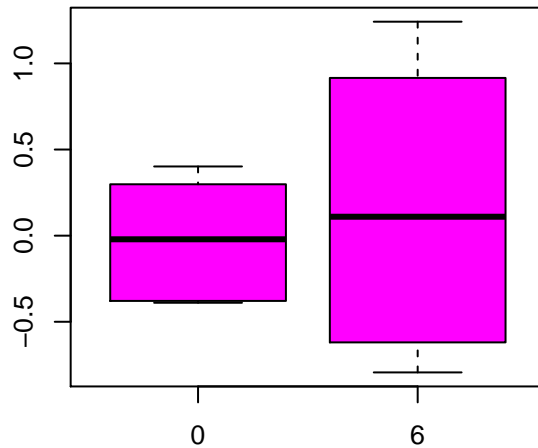
HCT116

OVCAR

**X - 13230**



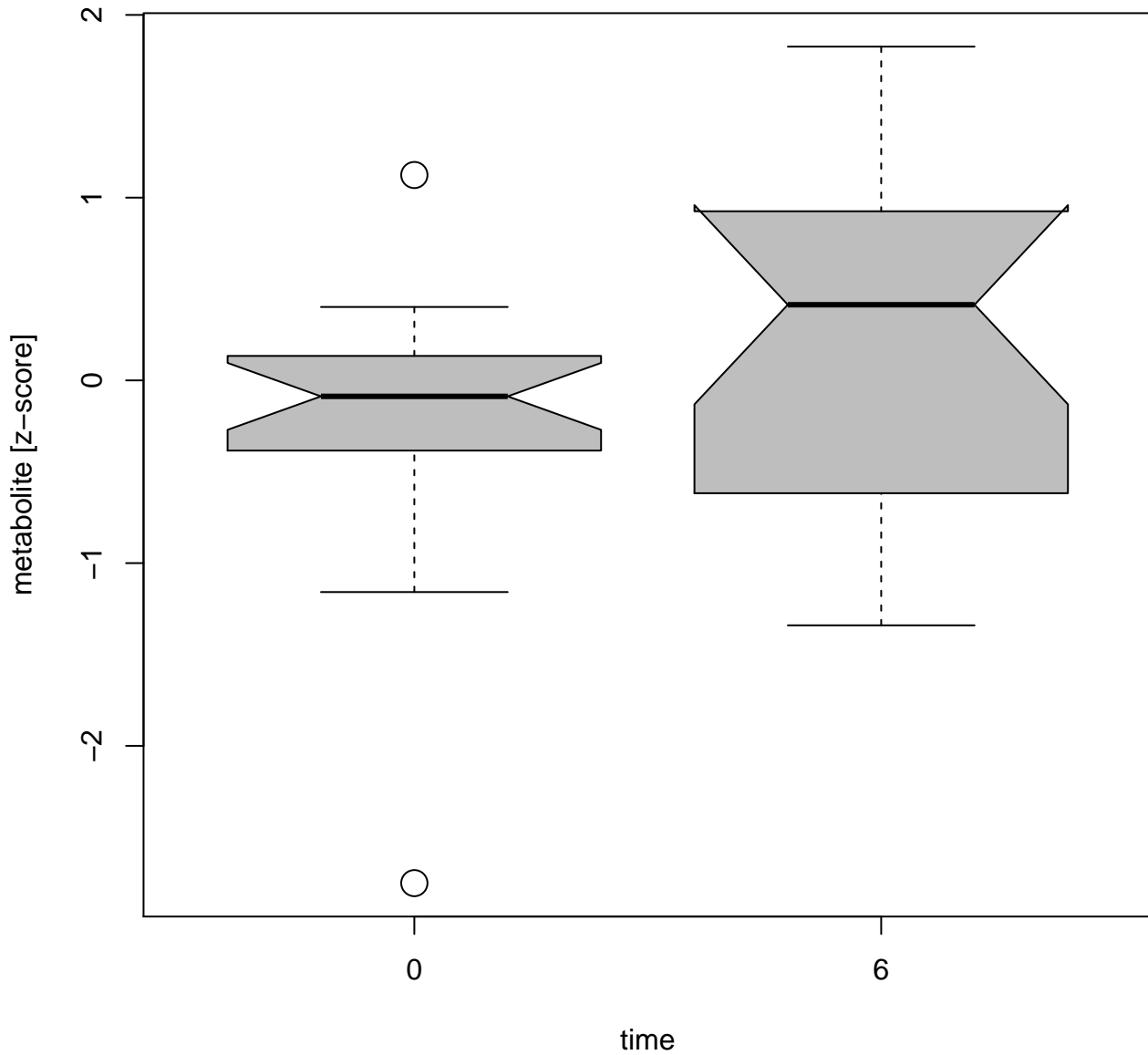
**X - 13230**



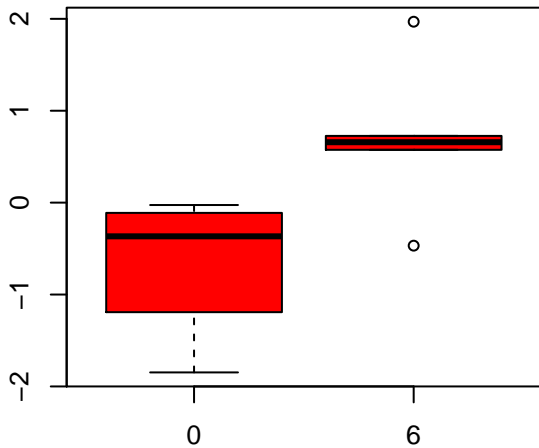
HCT15

SKOV3

# X - 13230

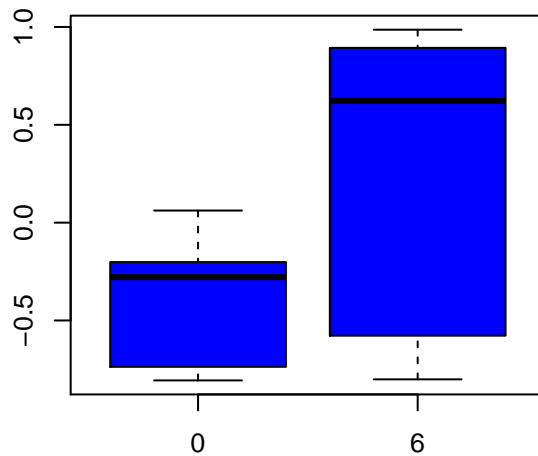


**X - 13396**



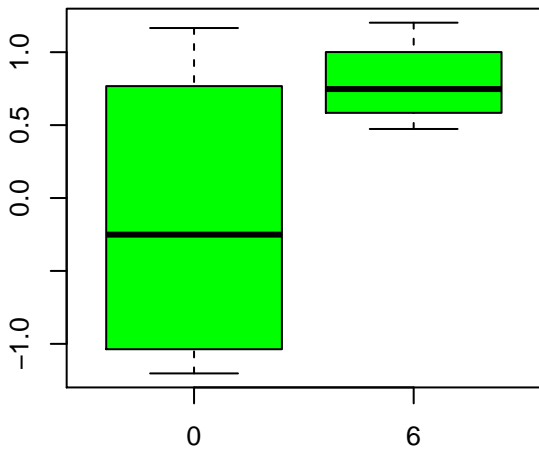
HCT116

**X - 13396**



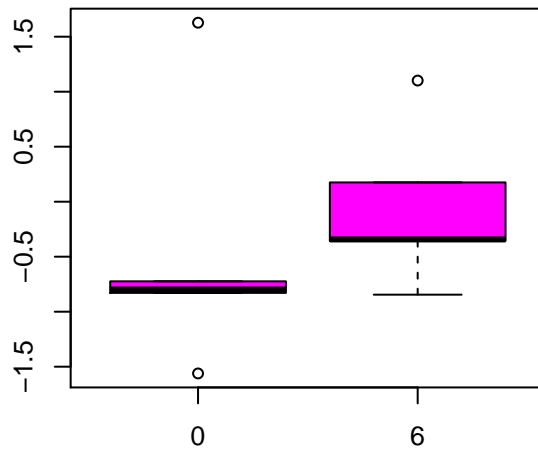
OVCAR

**X - 13396**



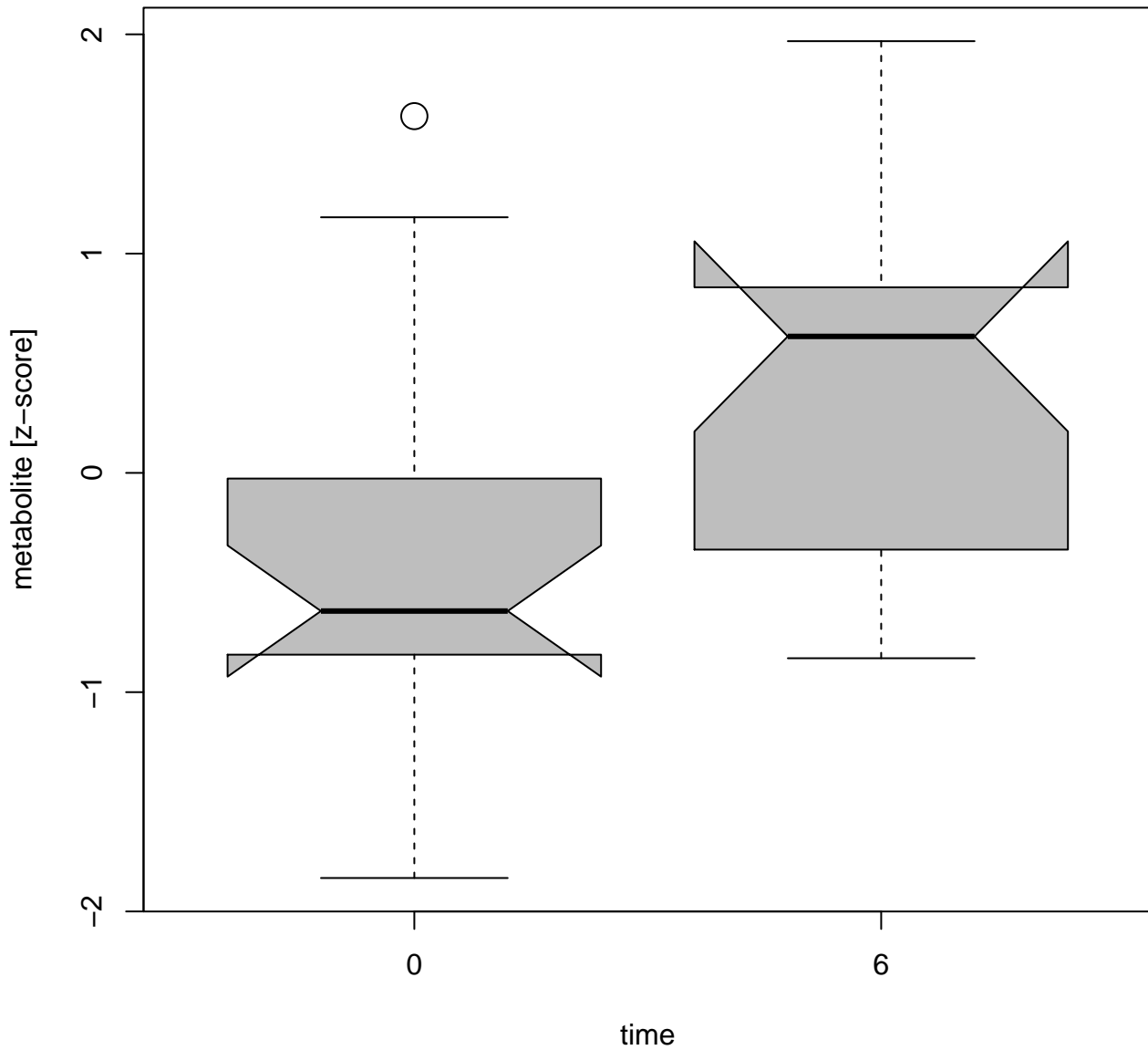
HCT15

**X - 13396**

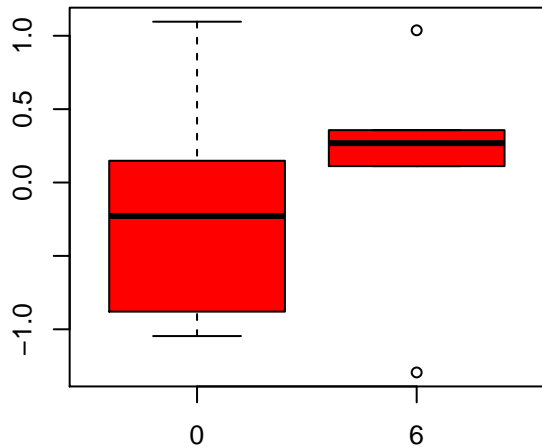


SKOV3

# X - 13396

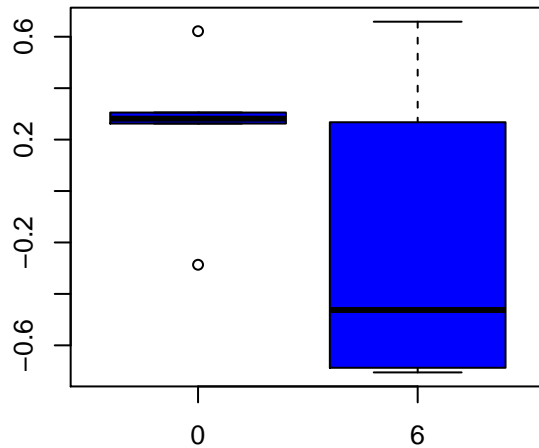


**X - 14568**



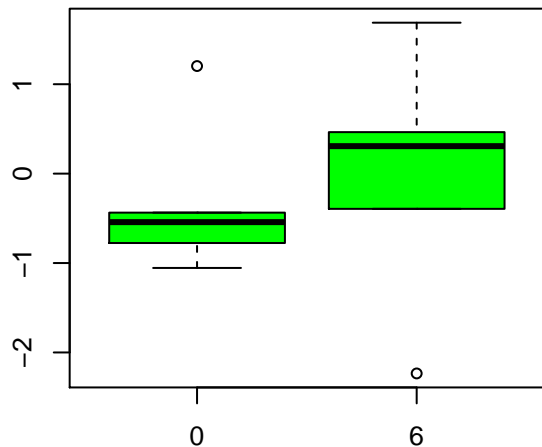
HCT116

**X - 14568**



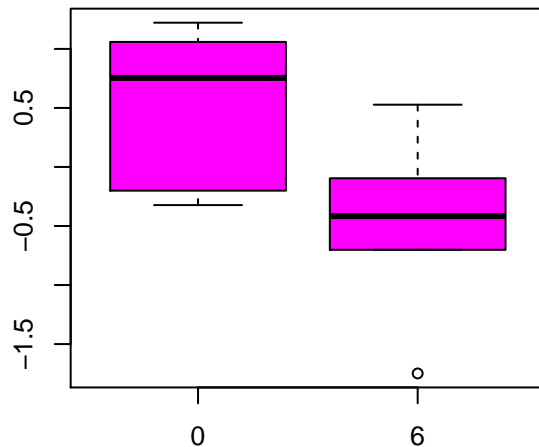
OVCAR

**X - 14568**



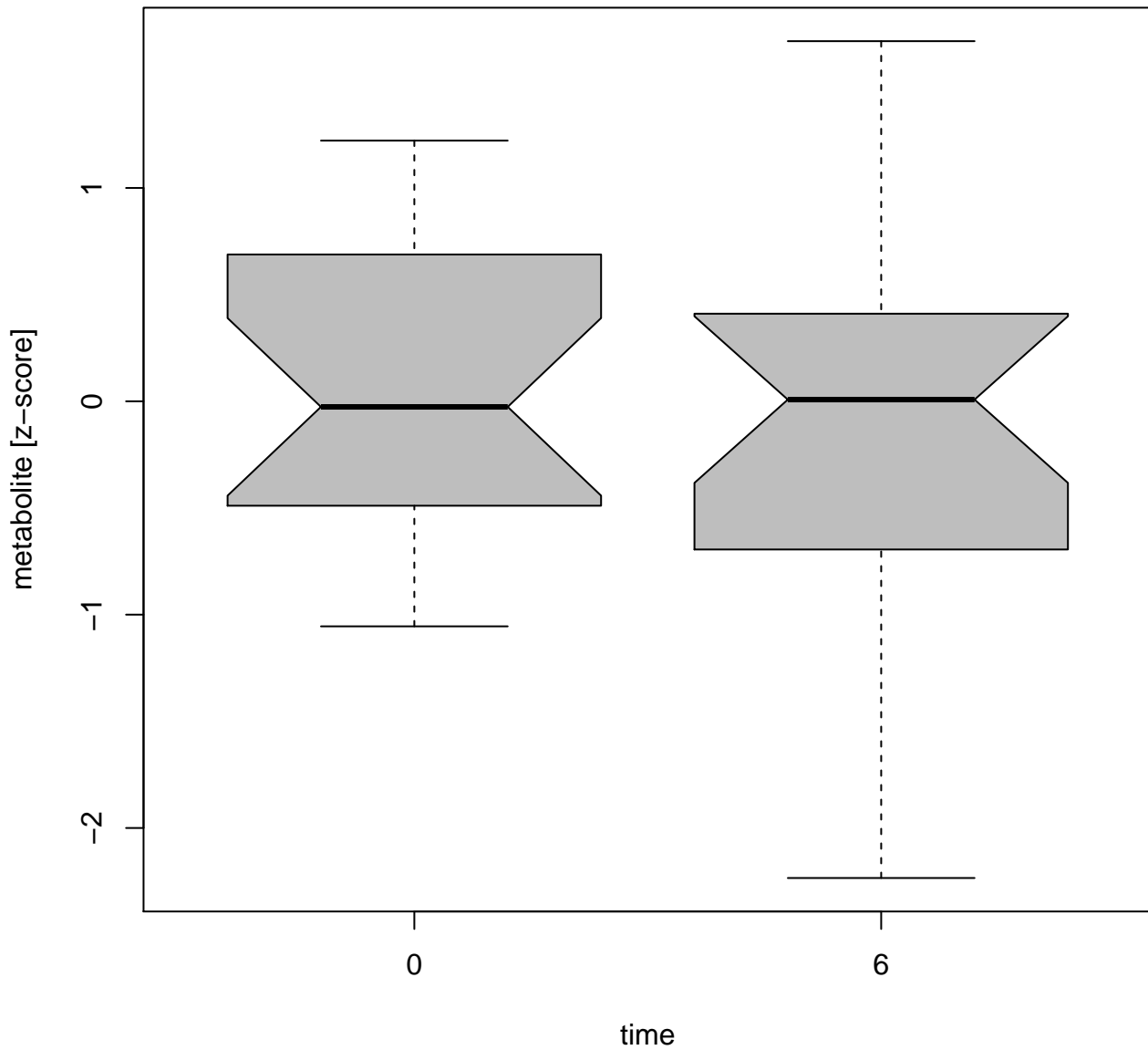
HCT15

**X - 14568**

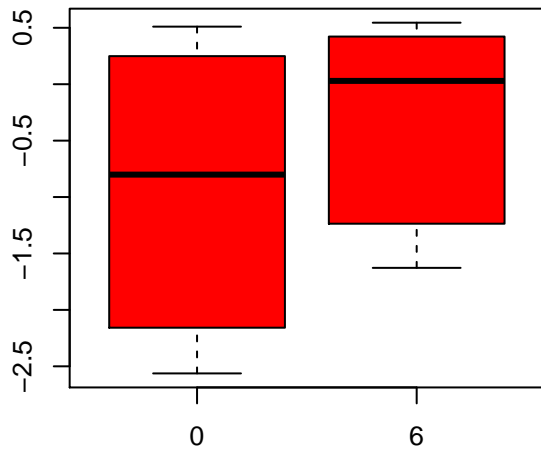


SKOV3

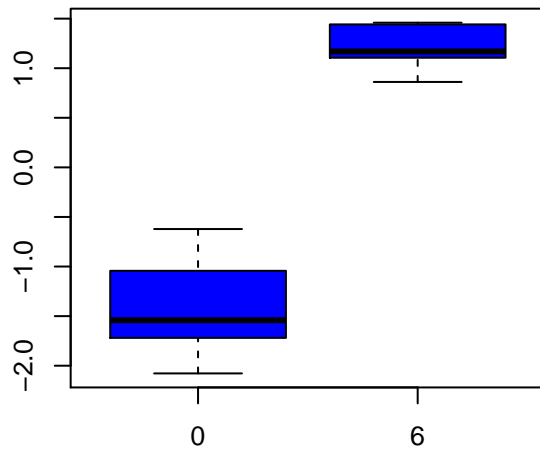
# X - 14568



**X - 14577**



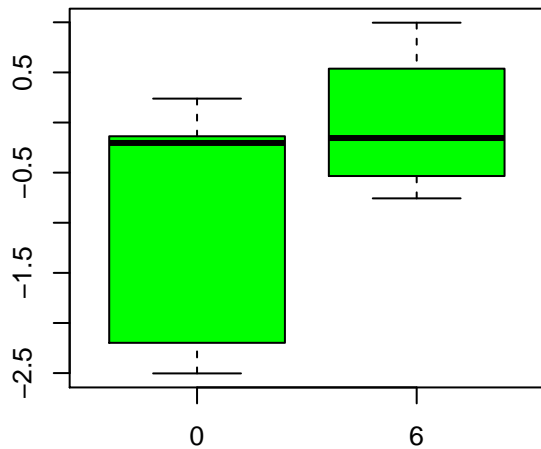
**X - 14577**



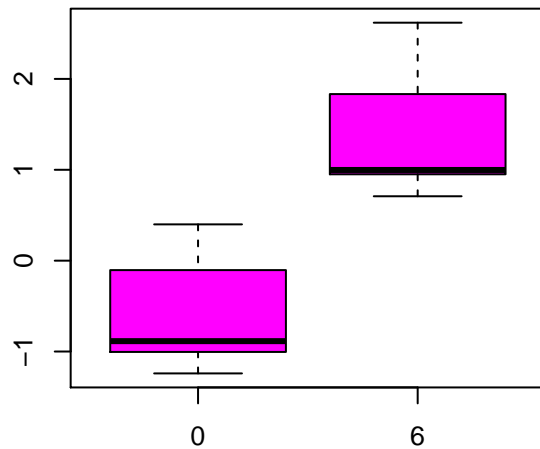
HCT116

OVCAR

**X - 14577**



**X - 14577**

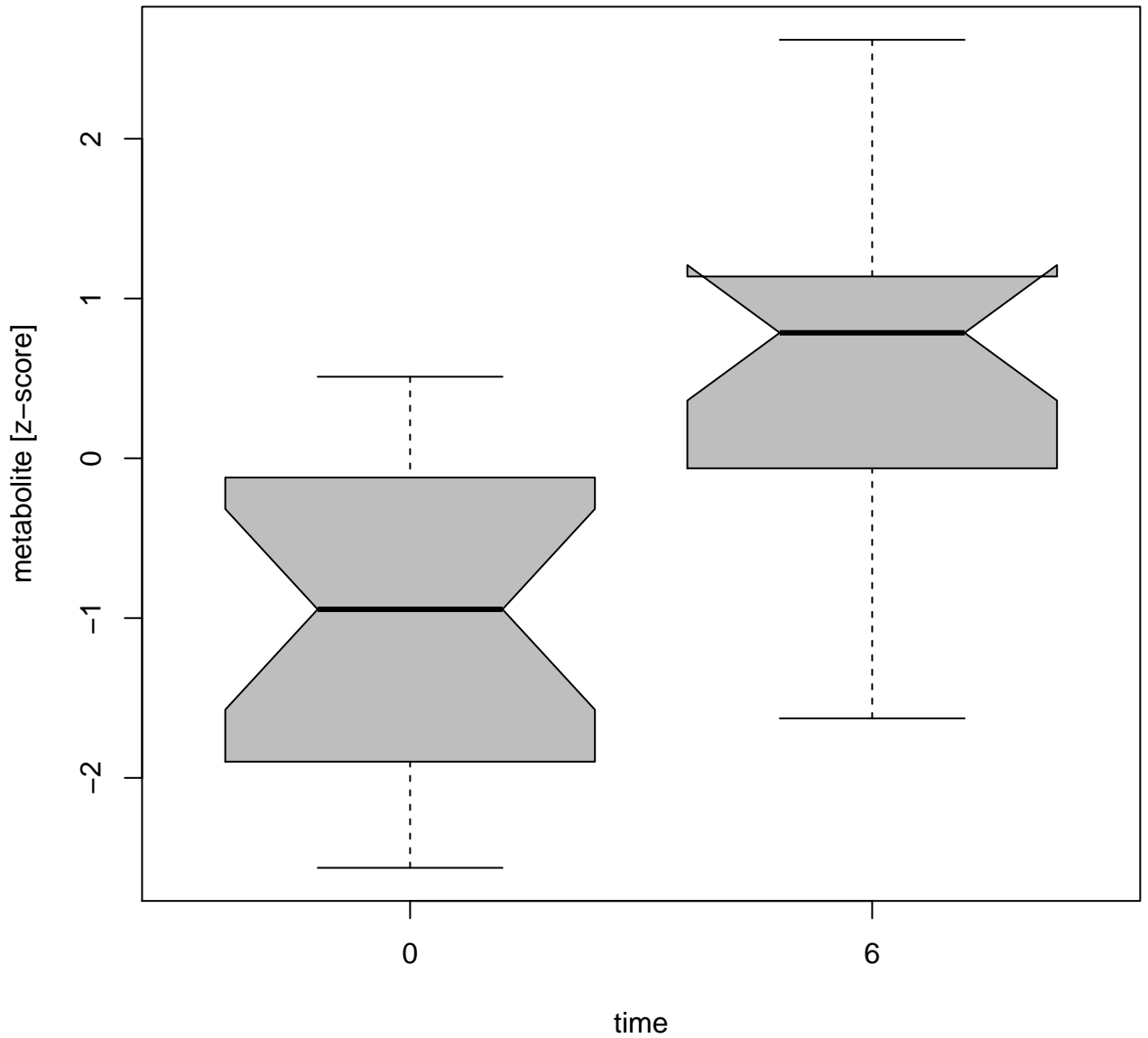


HCT15

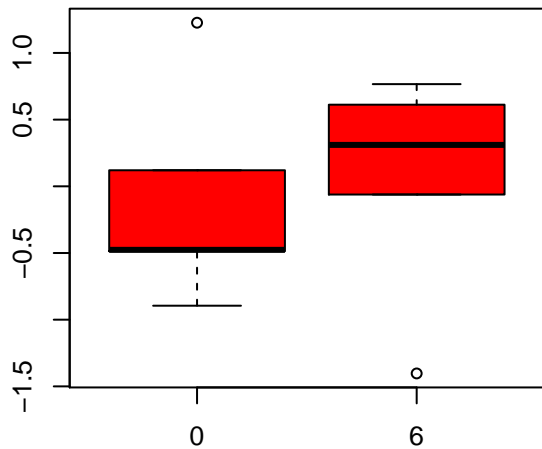
SKOV3



# X - 14577

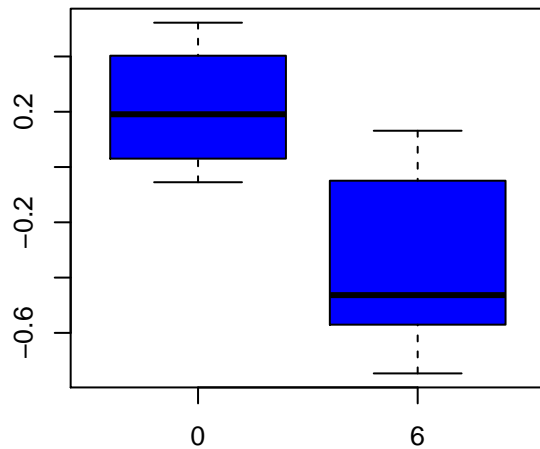


**X - 14588**



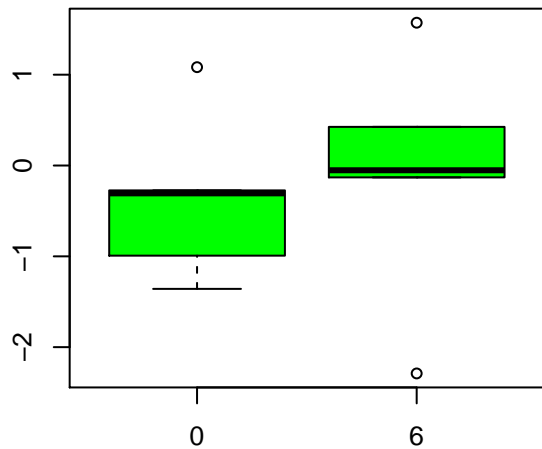
HCT116

**X - 14588**



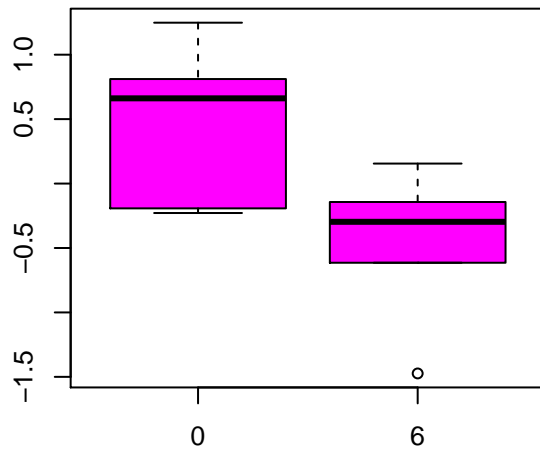
OVCAR

**X - 14588**



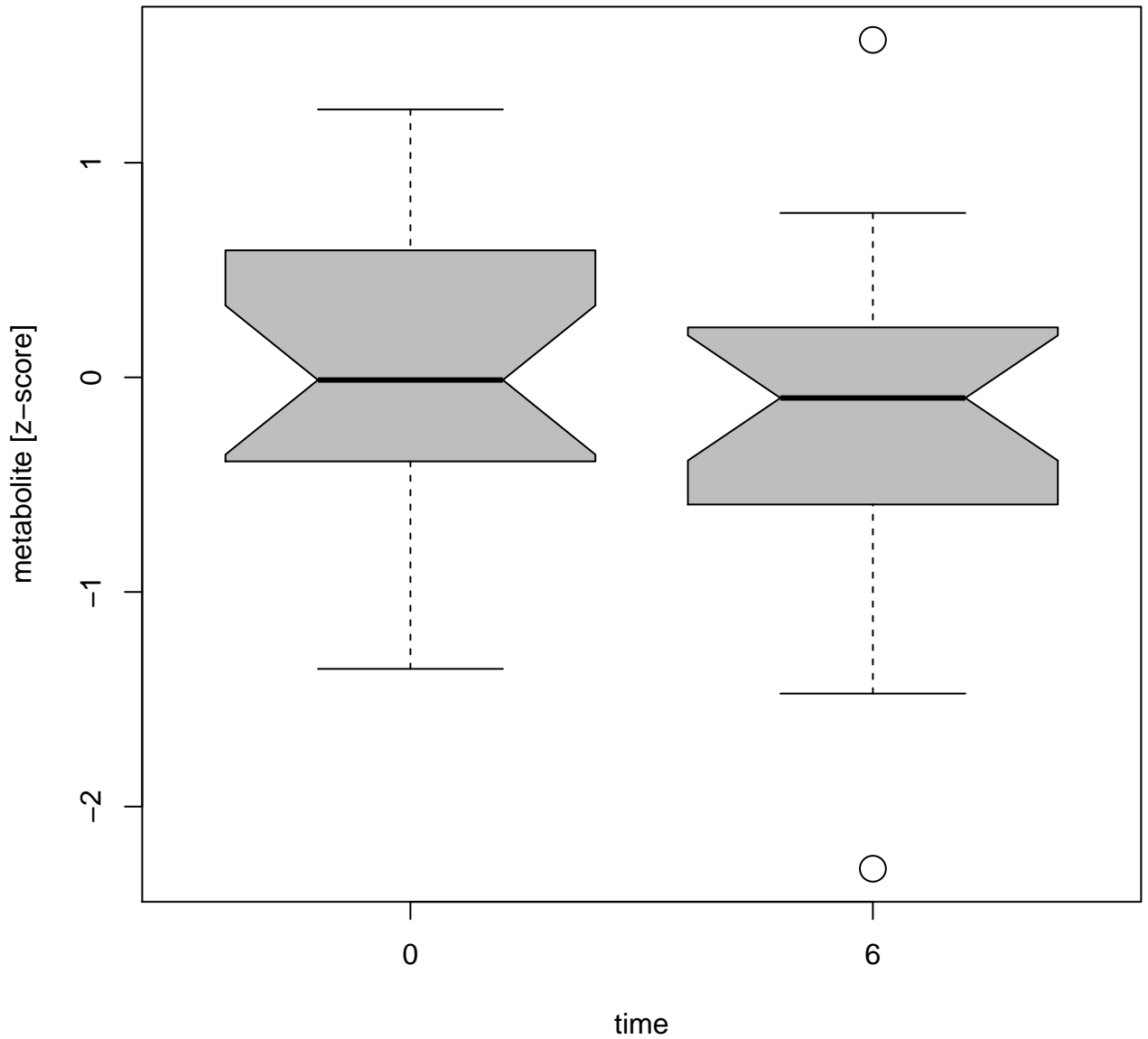
HCT15

**X - 14588**

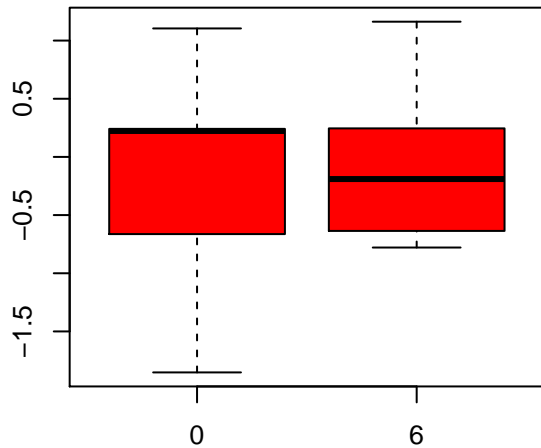


SKOV3

# X - 14588

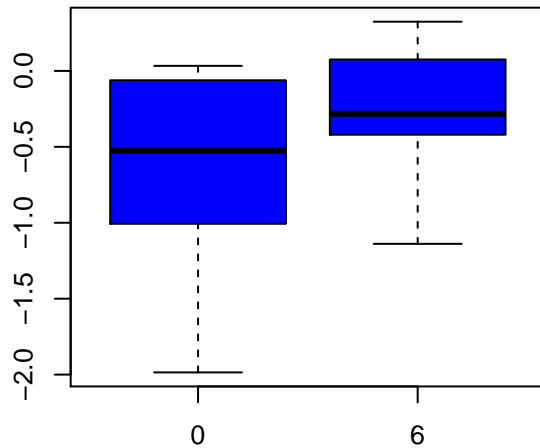


**X - 15375**



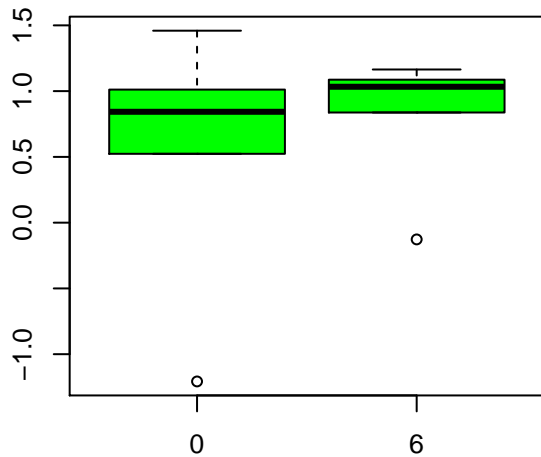
HCT116

**X - 15375**



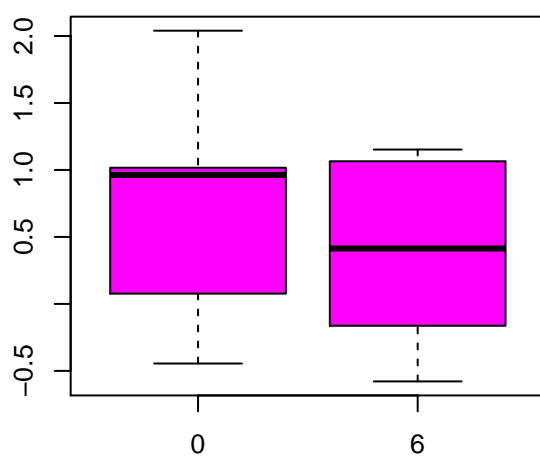
OVCAR

**X - 15375**



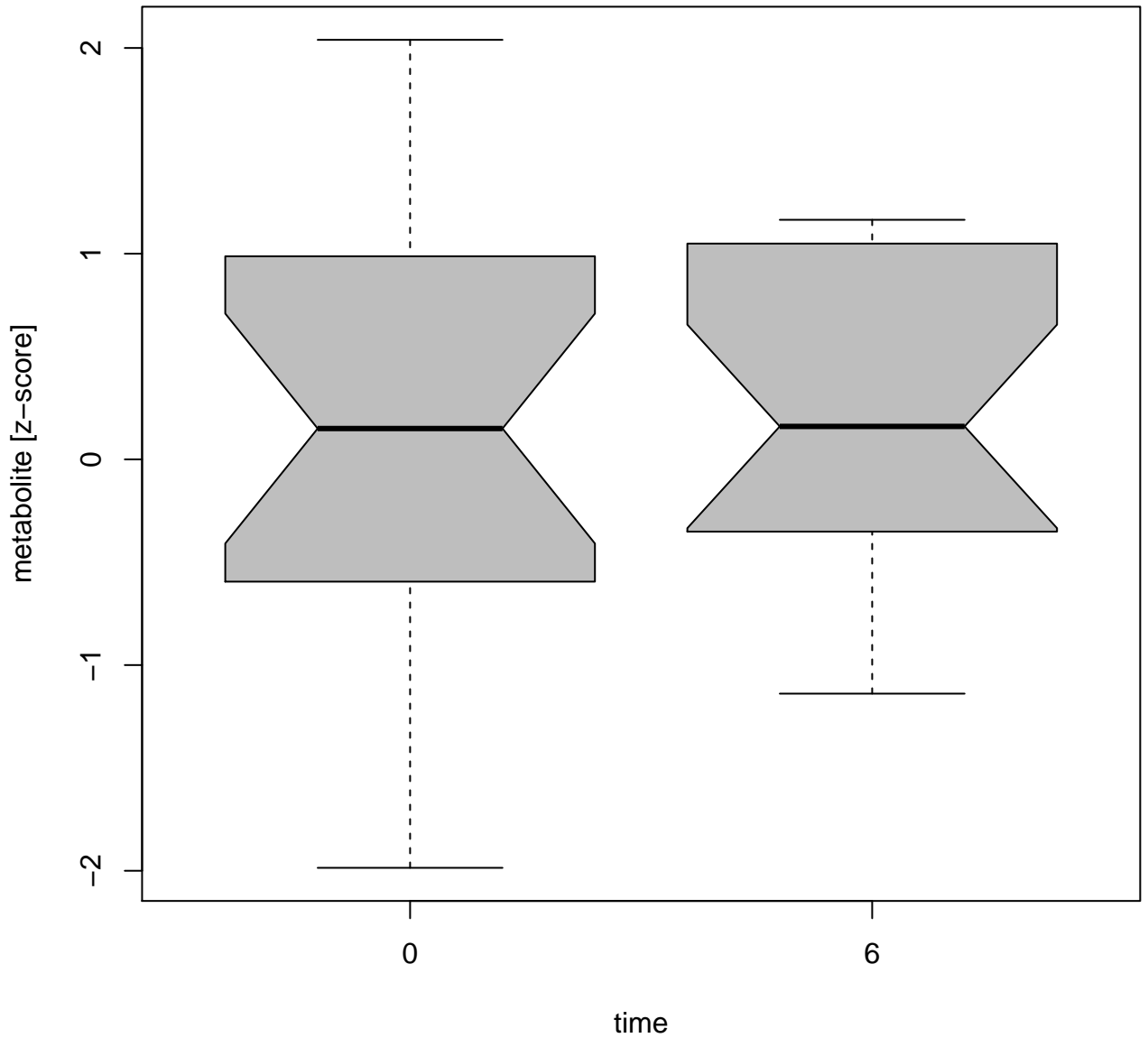
HCT15

**X - 15375**

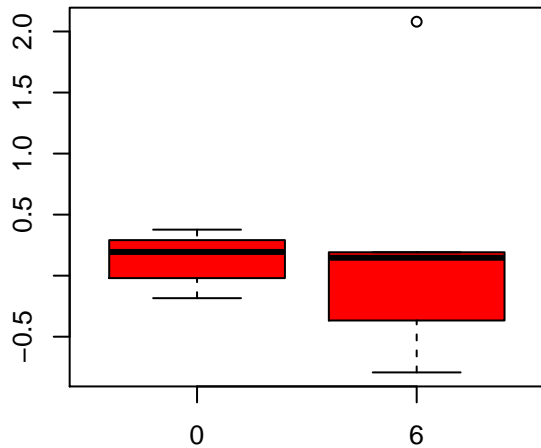


SKOV3

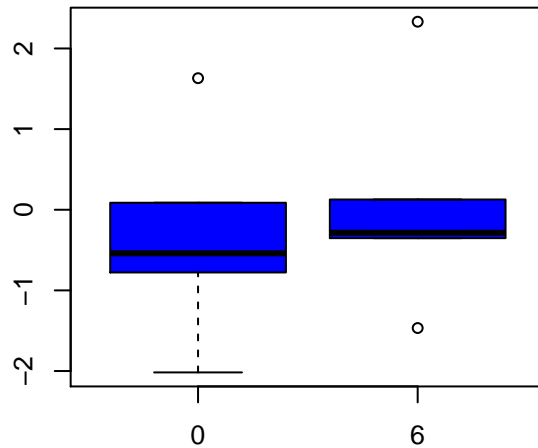
# X - 15375



**X - 15564**



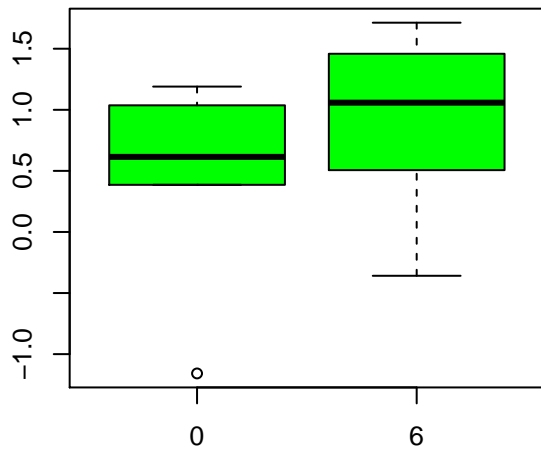
**X - 15564**



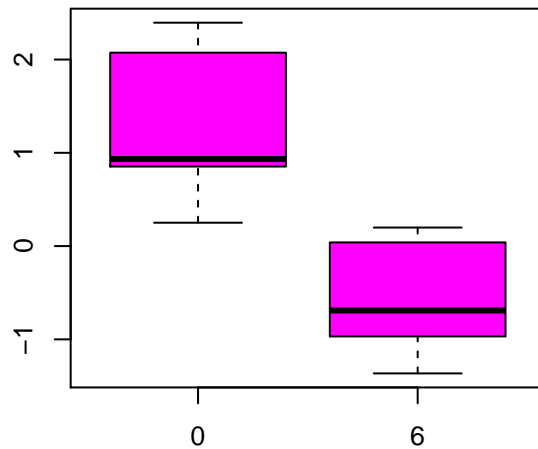
HCT116

OVCAR

**X - 15564**



**X - 15564**



HCT15

SKOV3

X - 15564

