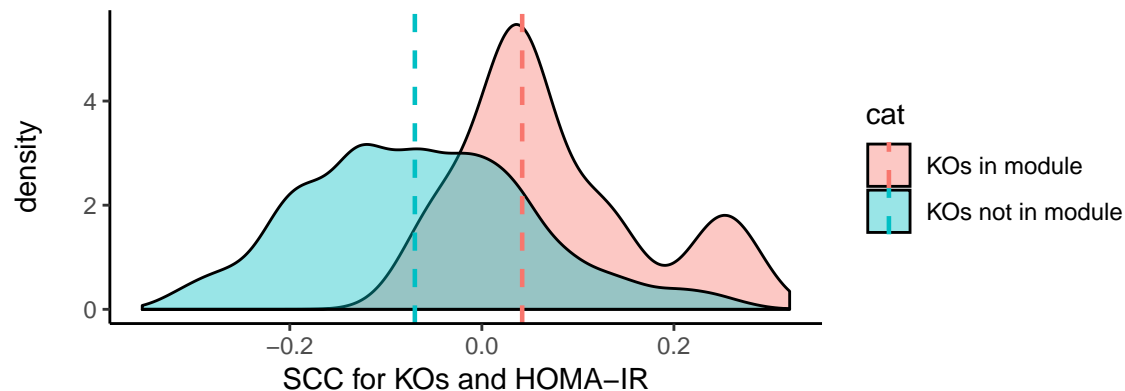
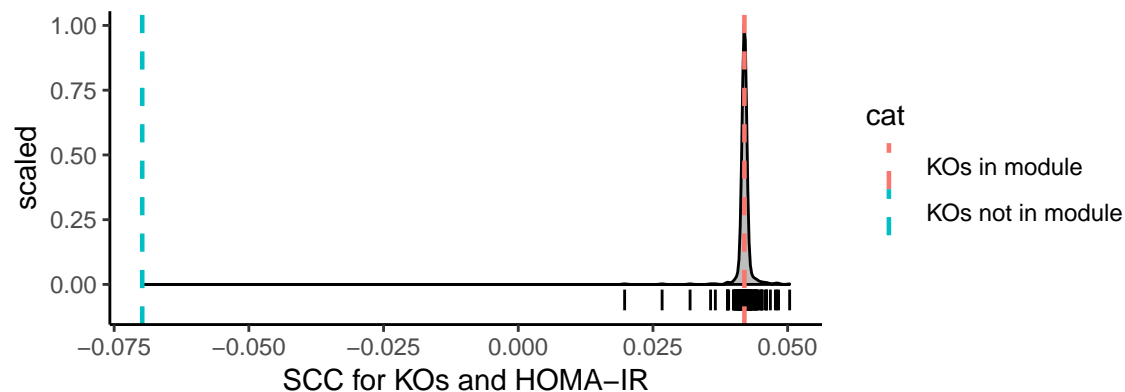


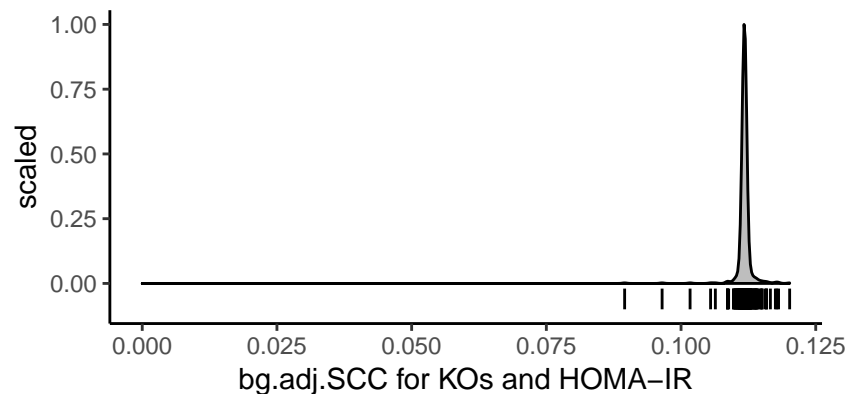
**a** KEGG module: M00124  
Pyridoxal biosynthesis  
6 KOs in module vs all remaining 6752 KOs



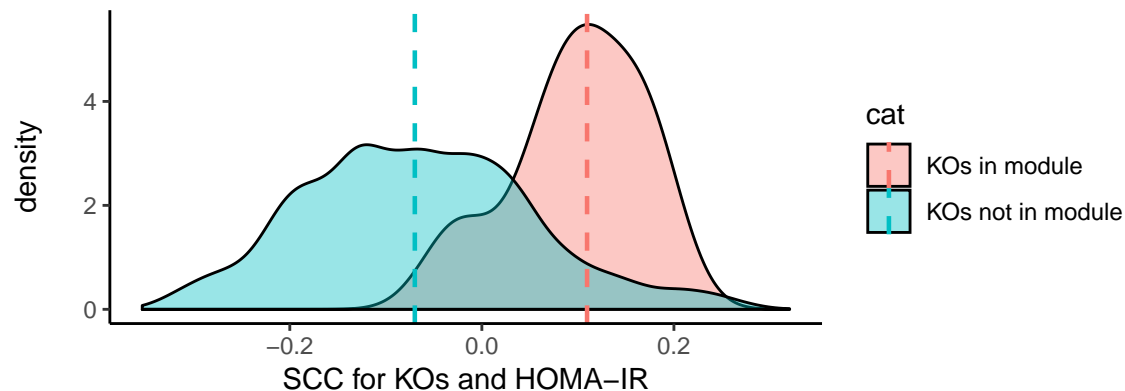
**b** KEGG module: M00124  
Pyridoxal biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 573



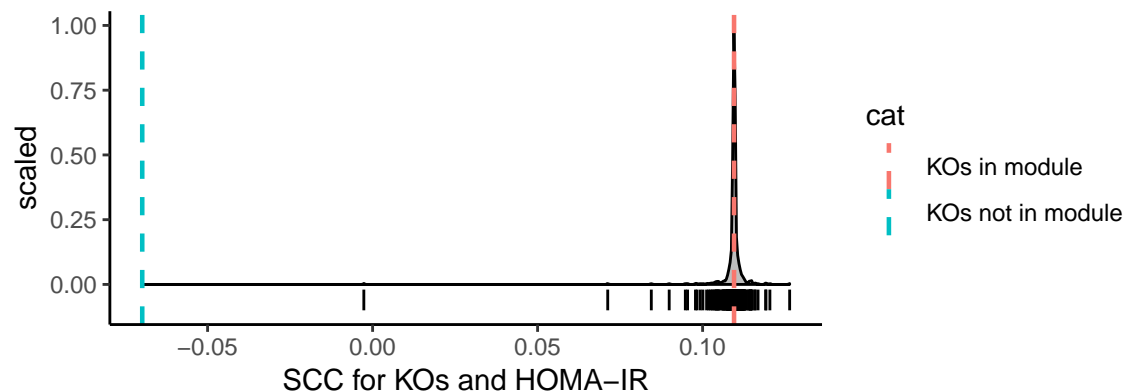
**c** KEGG module: M00124  
Pyridoxal biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 573



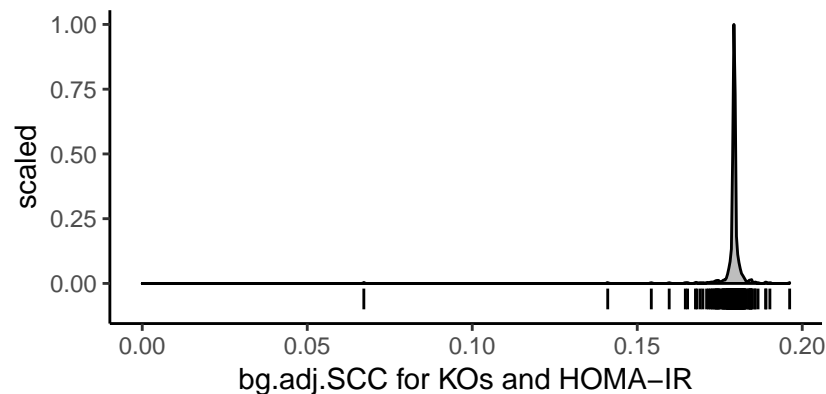
**a** KEGG module: M00570  
Isoleucine biosynthesis  
7 KOs in module vs all remaining 6751 KOs



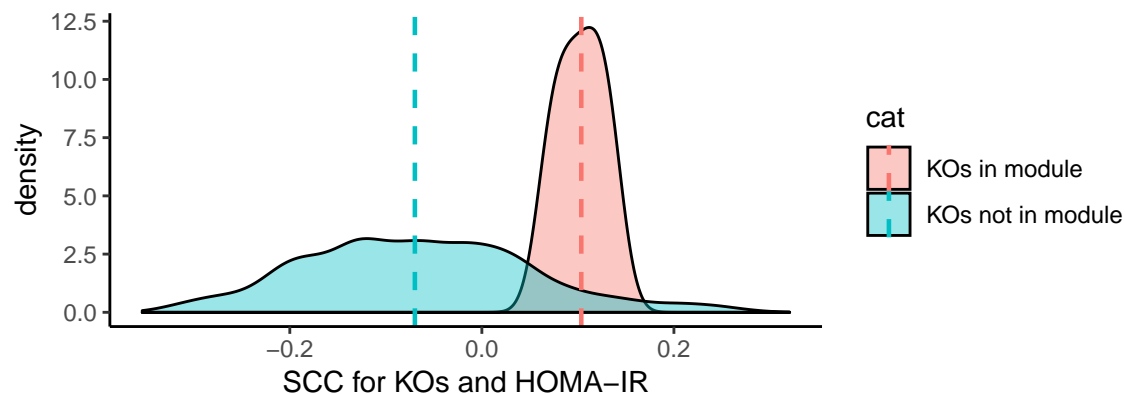
**b** KEGG module: M00570  
Isoleucine biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 617



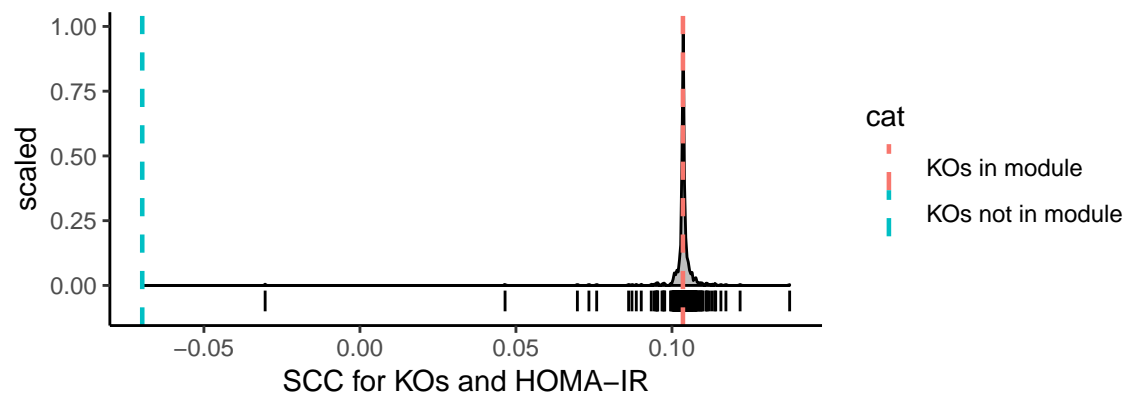
**c** KEGG module: M00570  
Isoleucine biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 617



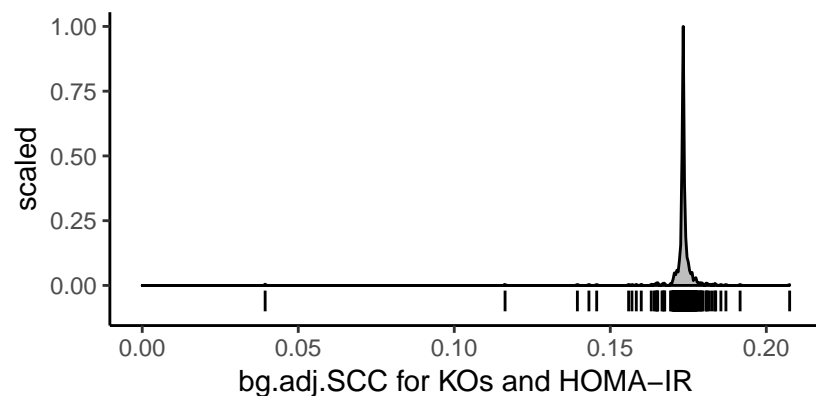
**a** KEGG module: M00432  
Leucine biosynthesis  
5 KOs in module vs all remaining 6753 KOs

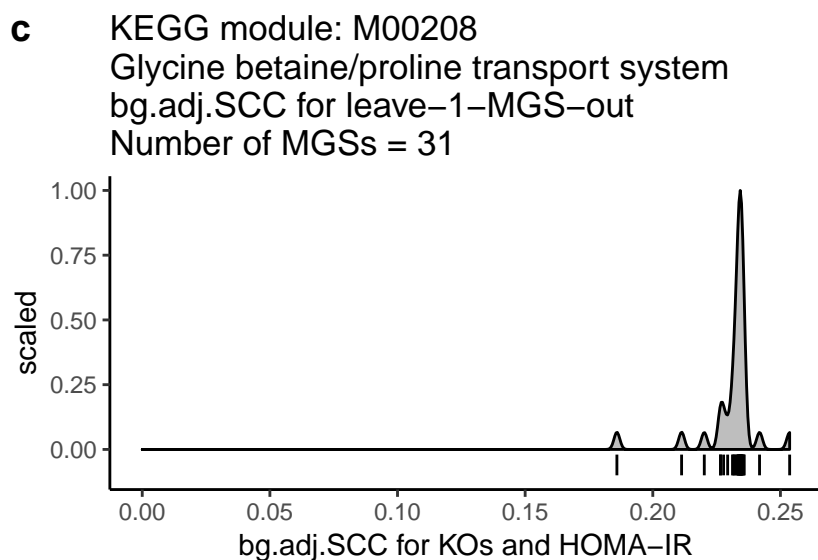
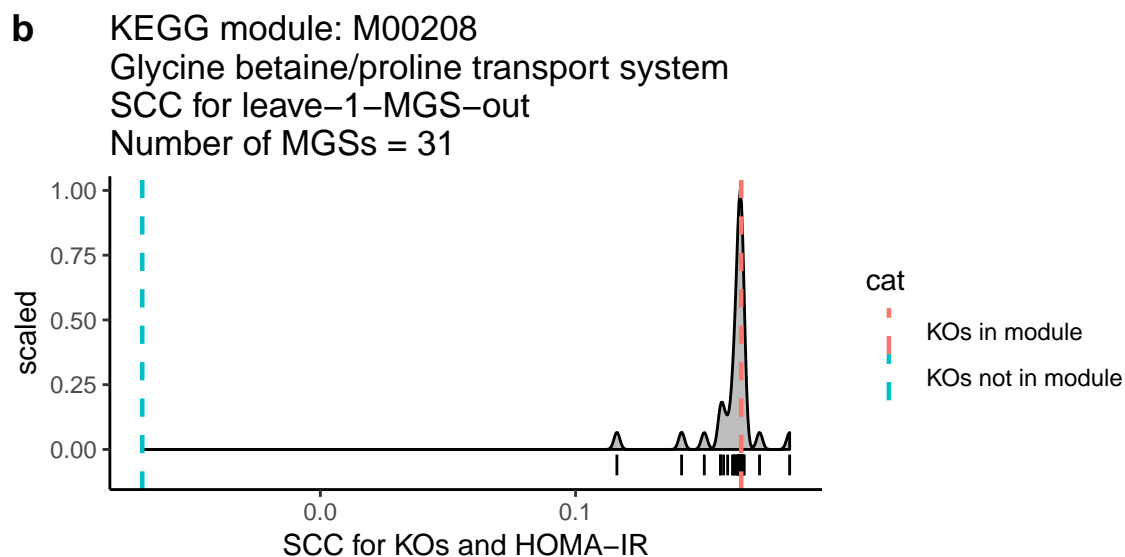
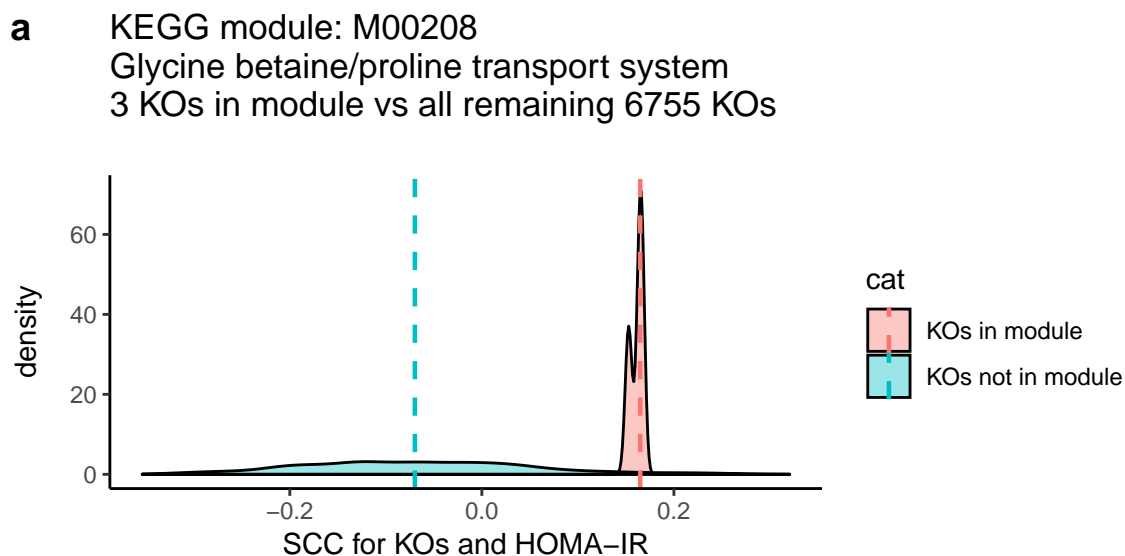


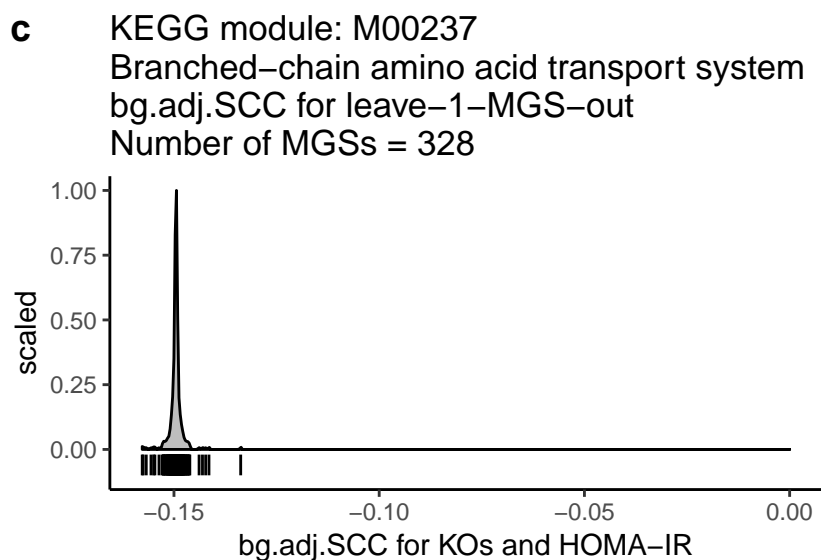
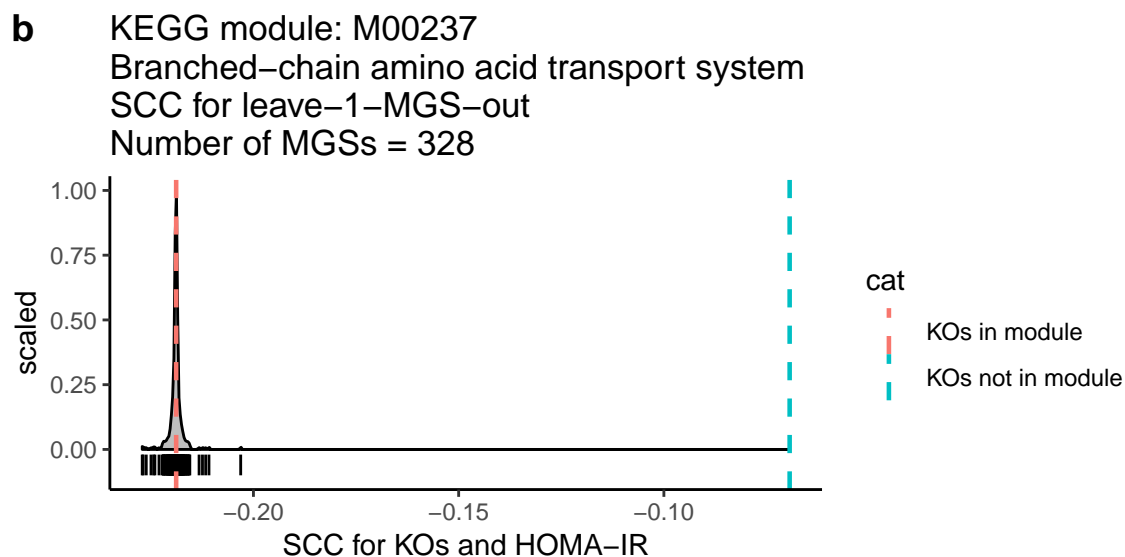
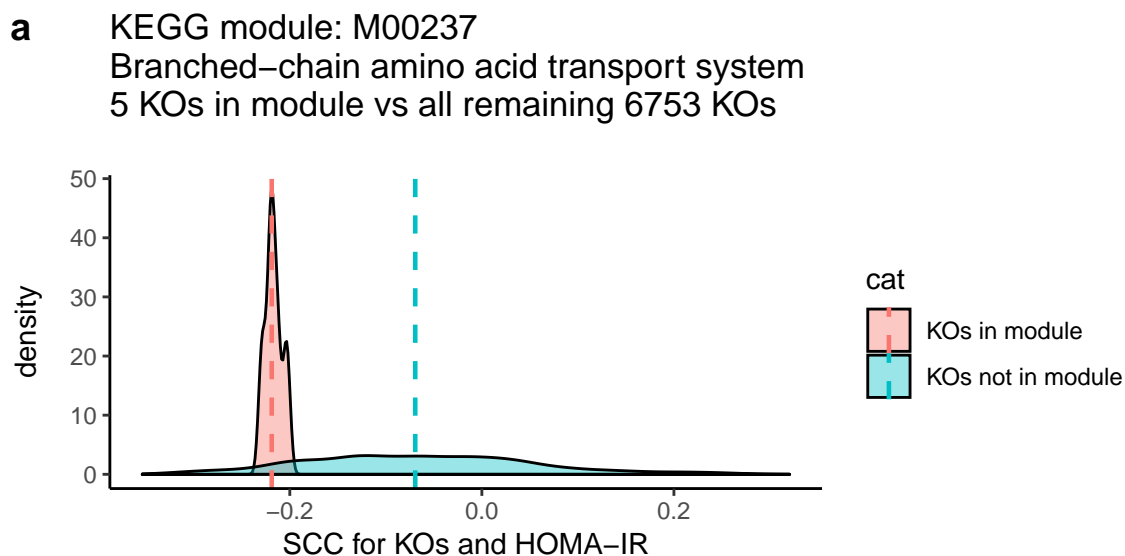
**b** KEGG module: M00432  
Leucine biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 523



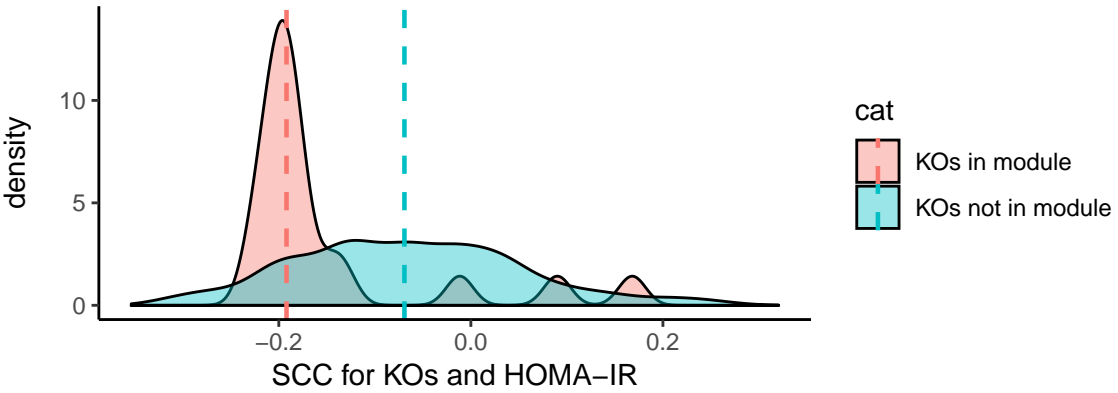
**c** KEGG module: M00432  
Leucine biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 523



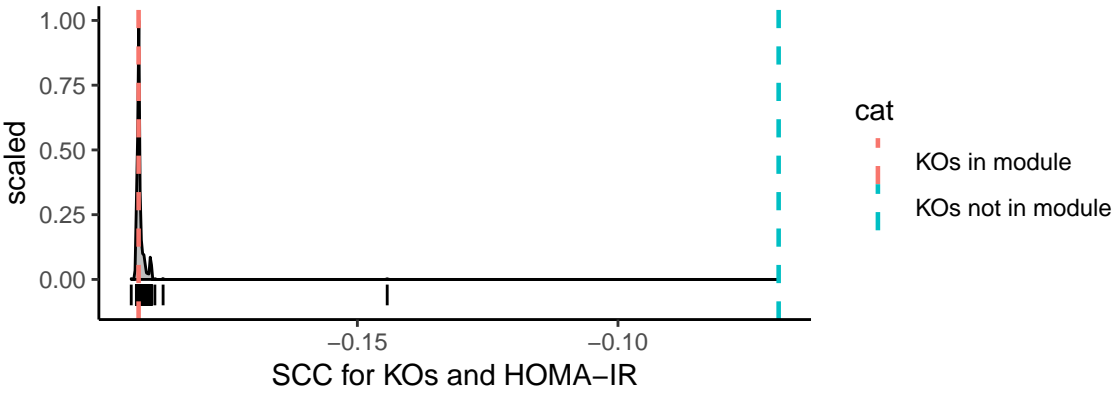




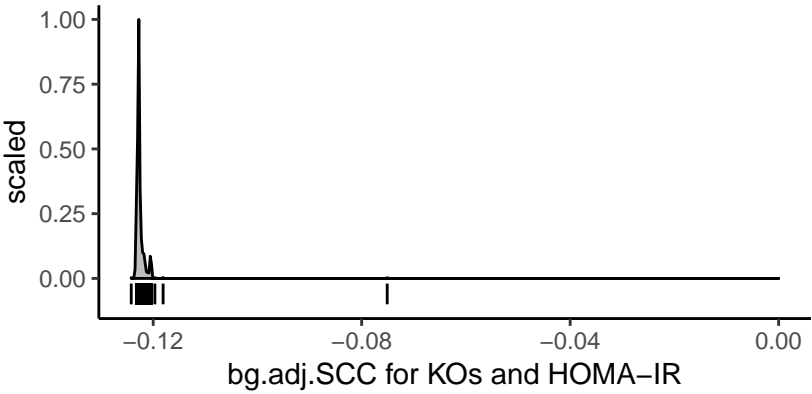
**a** KEGG module: M00357  
Methanogenesis  
21 KOs in module vs all remaining 6737 KOs



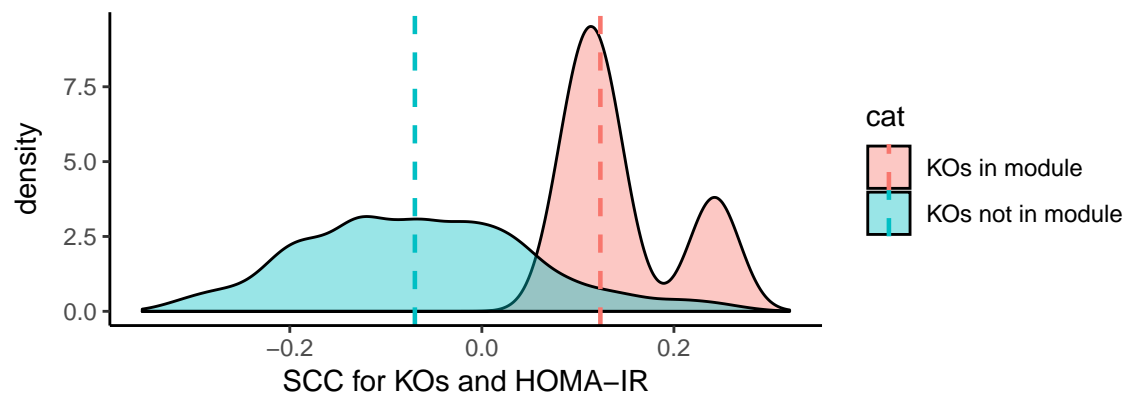
**b** KEGG module: M00357  
Methanogenesis  
SCC for leave-1-MGS-out  
Number of MGSs = 686



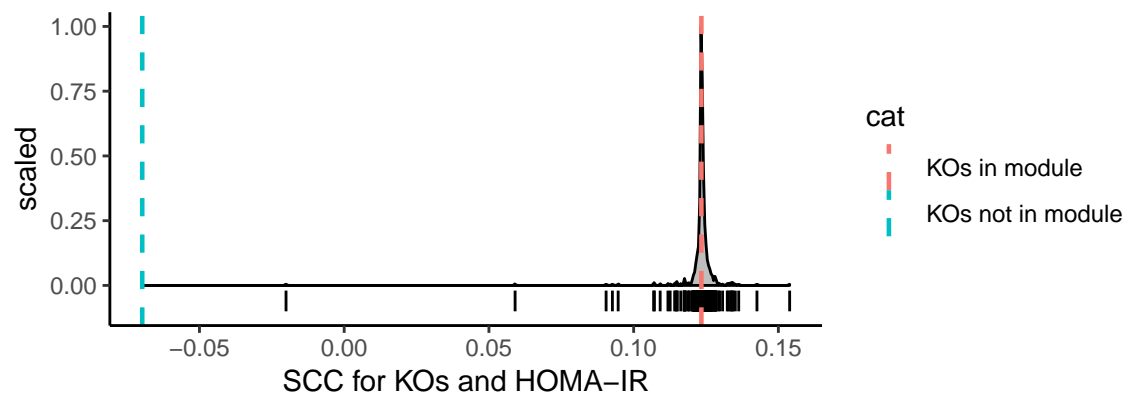
**c** KEGG module: M00357  
Methanogenesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 686



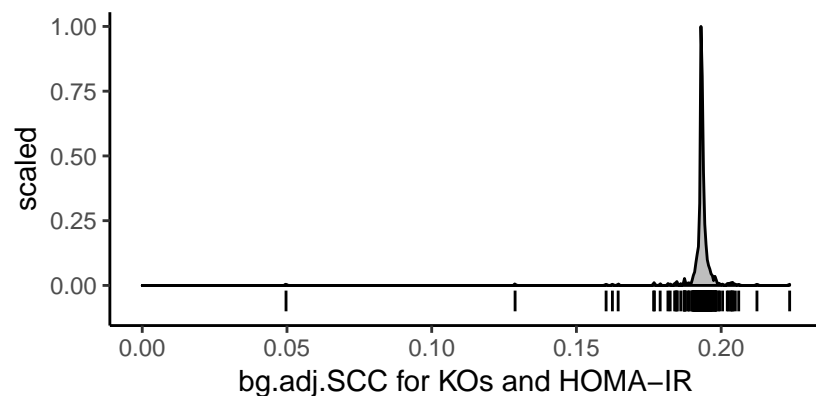
**a** KEGG module: M00535  
Isoleucine biosynthesis  
4 KOs in module vs all remaining 6754 KOs



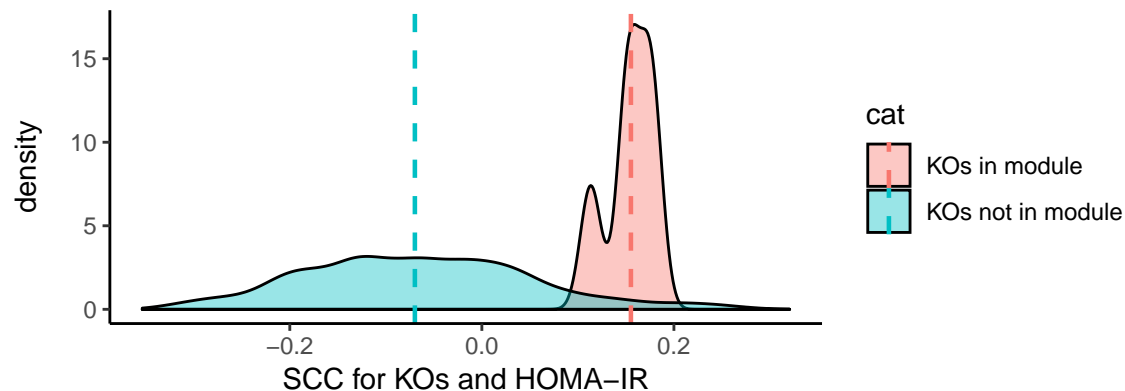
**b** KEGG module: M00535  
Isoleucine biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 478



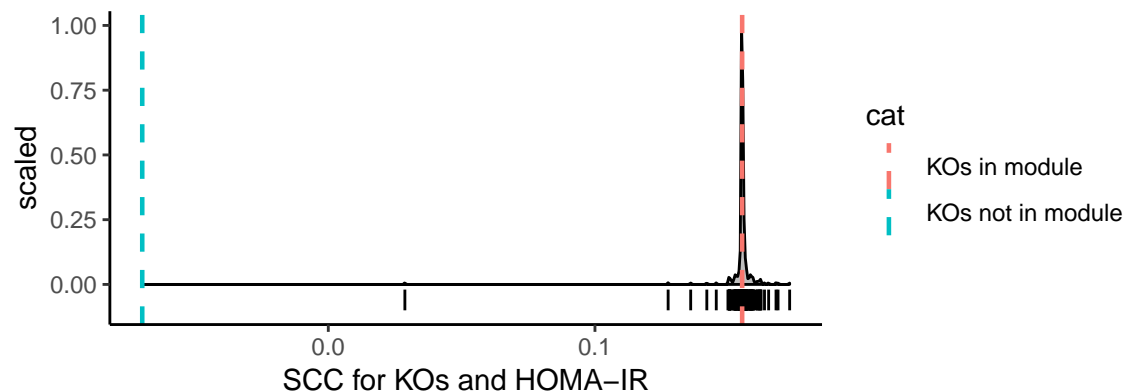
**c** KEGG module: M00535  
Isoleucine biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 478



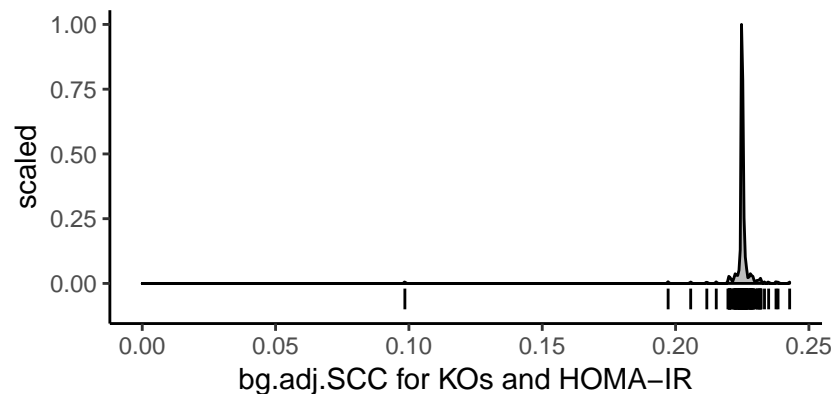
**a** KEGG module: M00061  
Uronic acid metabolism  
7 KOs in module vs all remaining 6751 KOs



**b** KEGG module: M00061  
Uronic acid metabolism  
SCC for leave-1-MGS-out  
Number of MGSs = 332

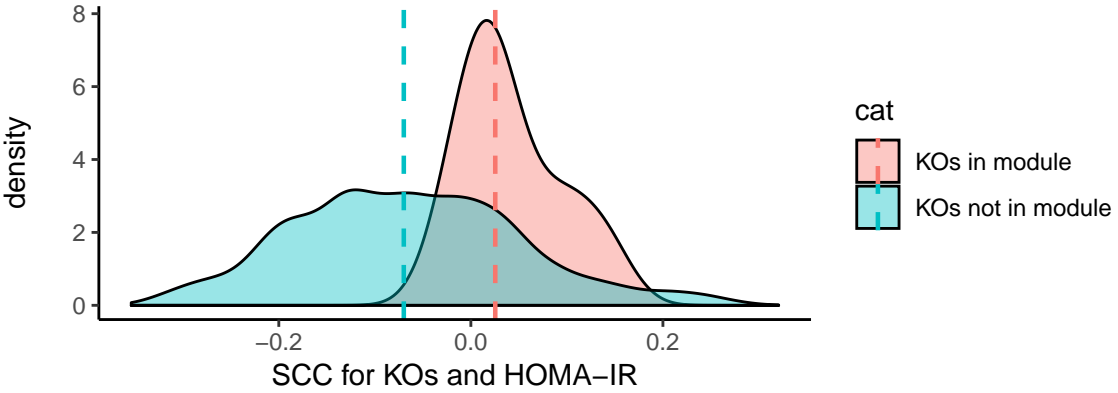


**c** KEGG module: M00061  
Uronic acid metabolism  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 332

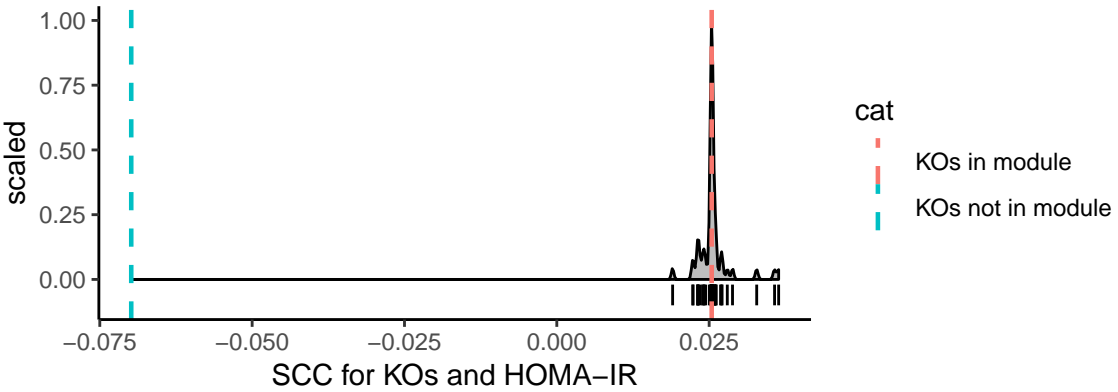




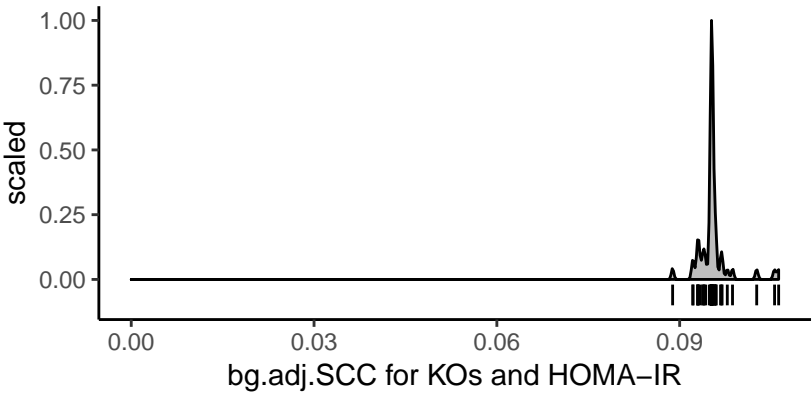
**a** KEGG module: M00530  
Dissimilatory nitrate reduction  
10 KOs in module vs all remaining 6748 KOs

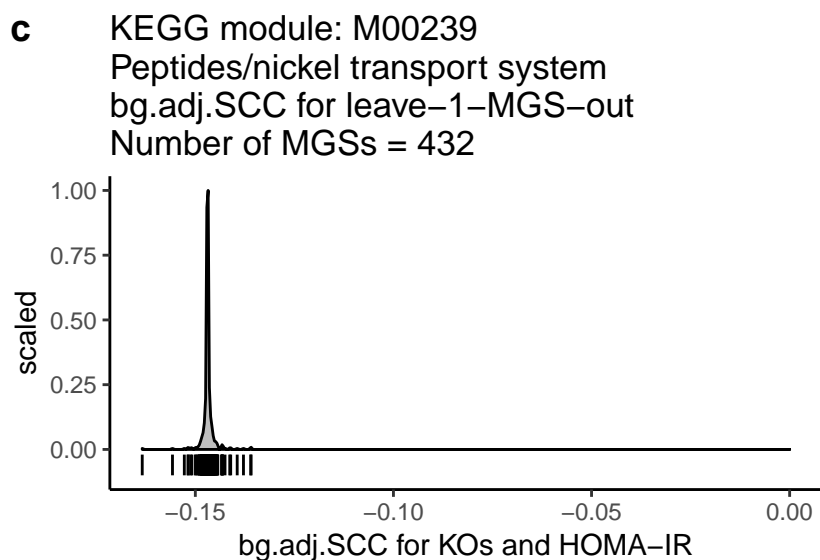
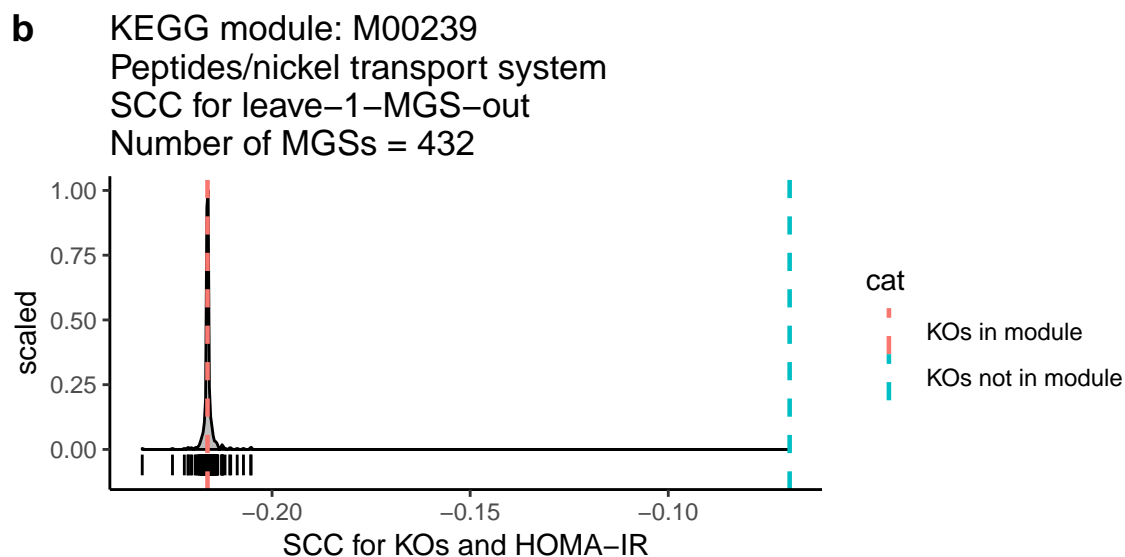
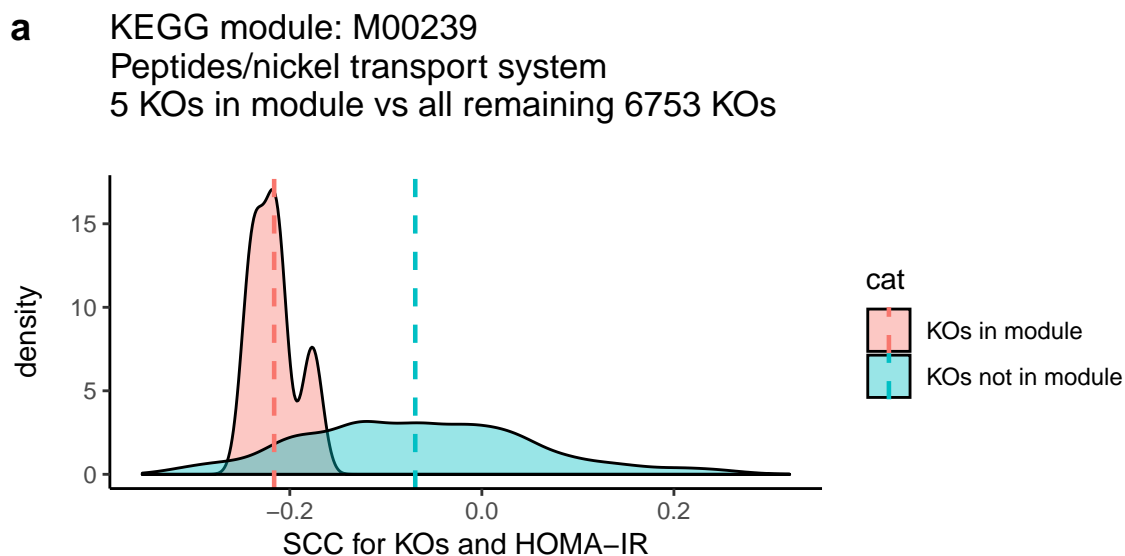


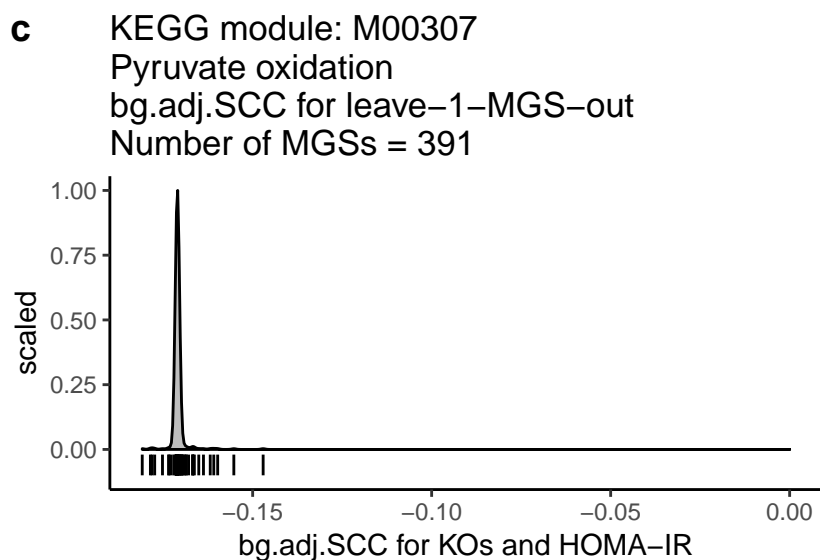
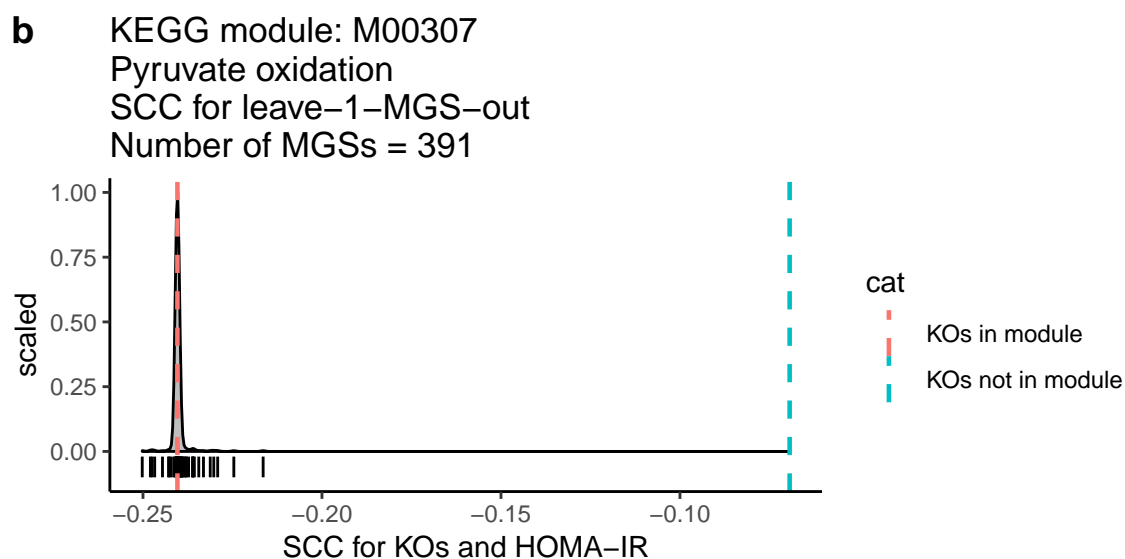
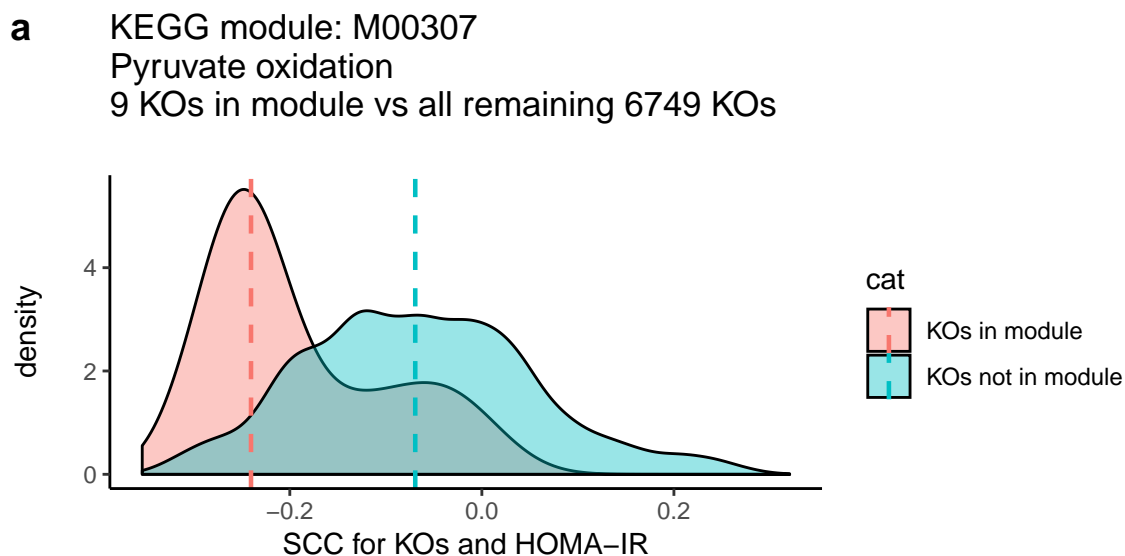
**b** KEGG module: M00530  
Dissimilatory nitrate reduction  
SCC for leave-1-MGS-out  
Number of MGSs = 54

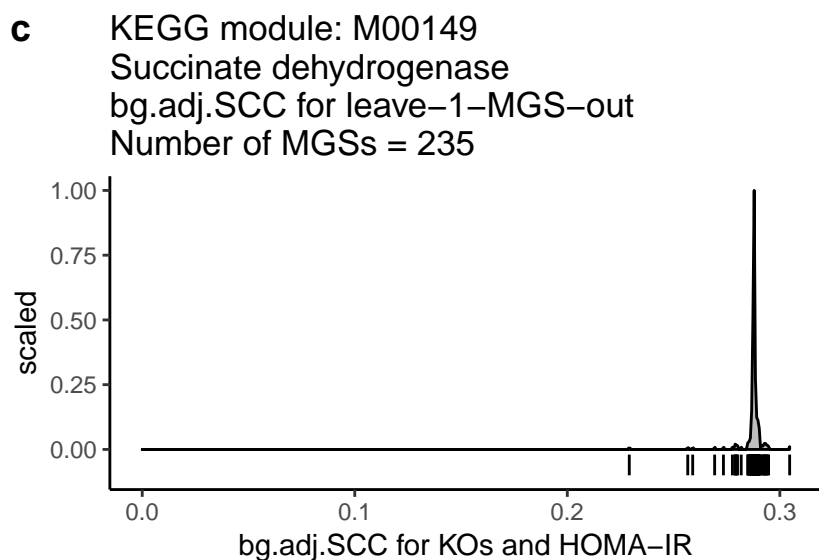
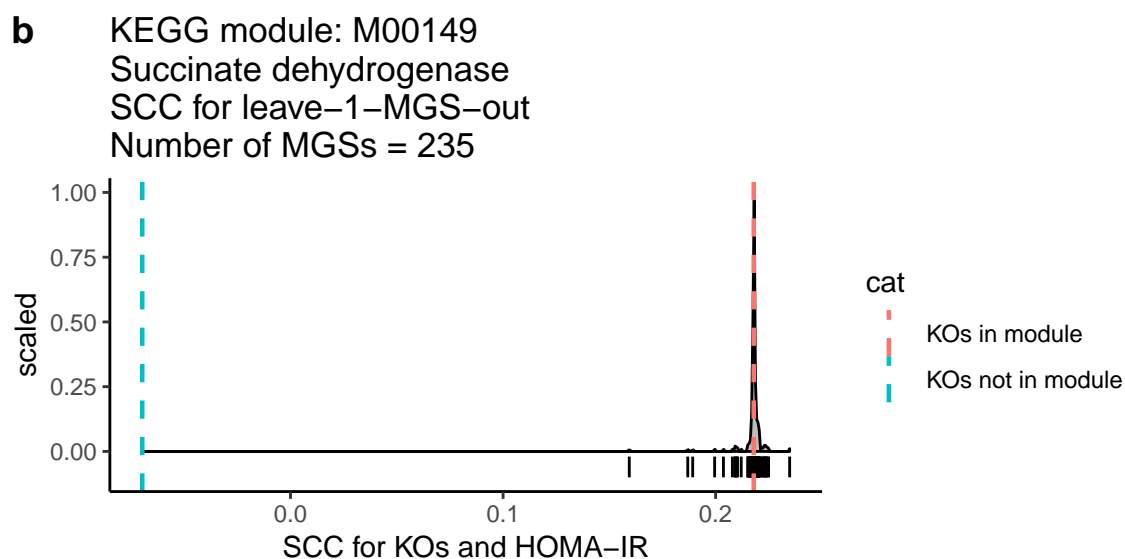
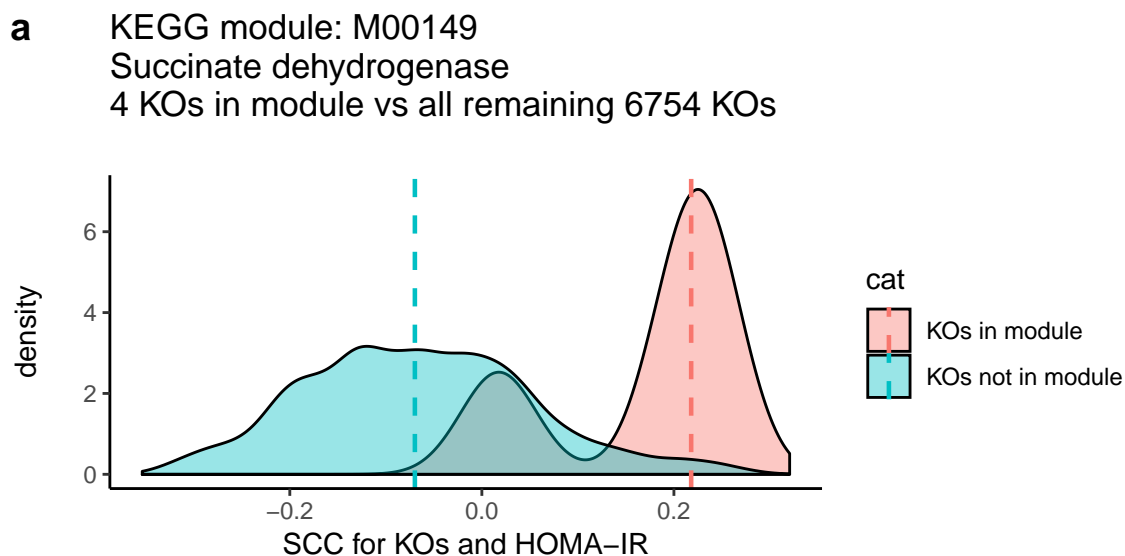


**c** KEGG module: M00530  
Dissimilatory nitrate reduction  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 54

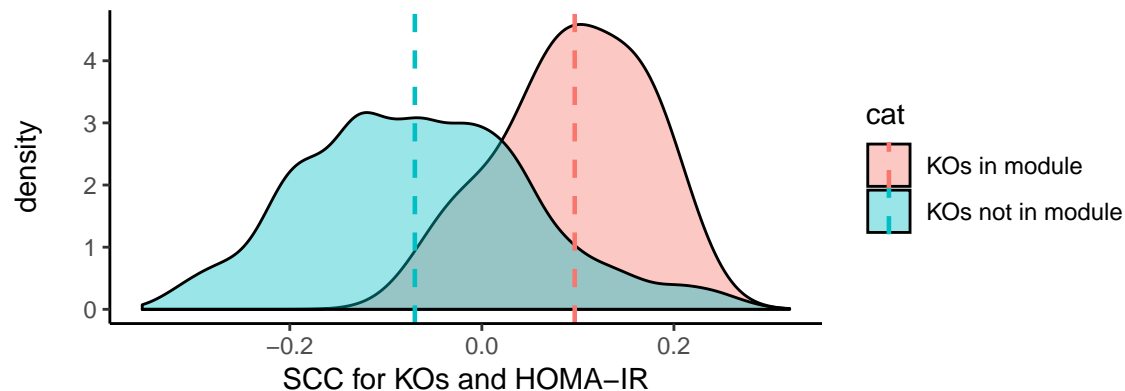




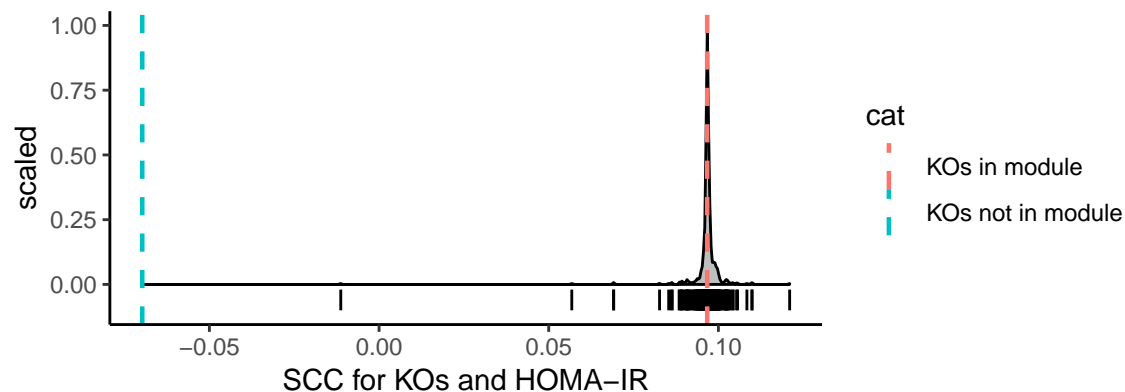




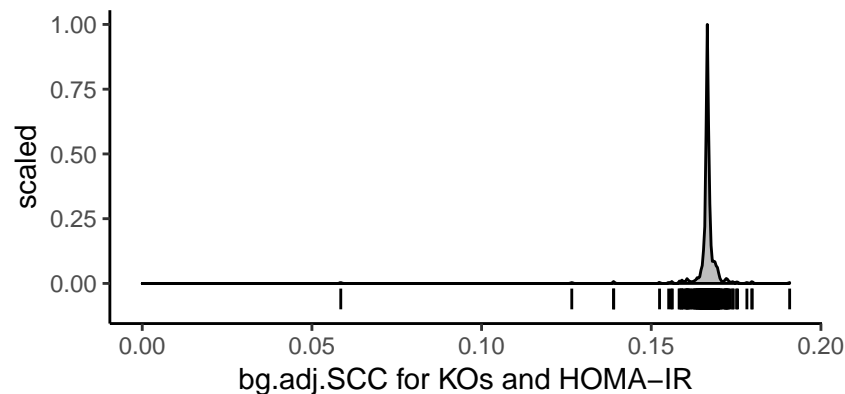
**a** KEGG module: M00019  
Valine/isoleucine biosynthesis  
6 KOs in module vs all remaining 6752 KOs



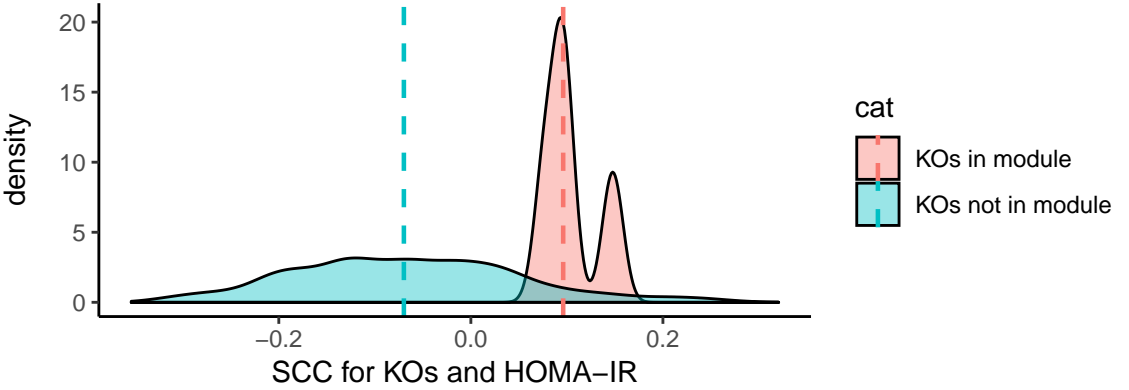
**b** KEGG module: M00019  
Valine/isoleucine biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 594



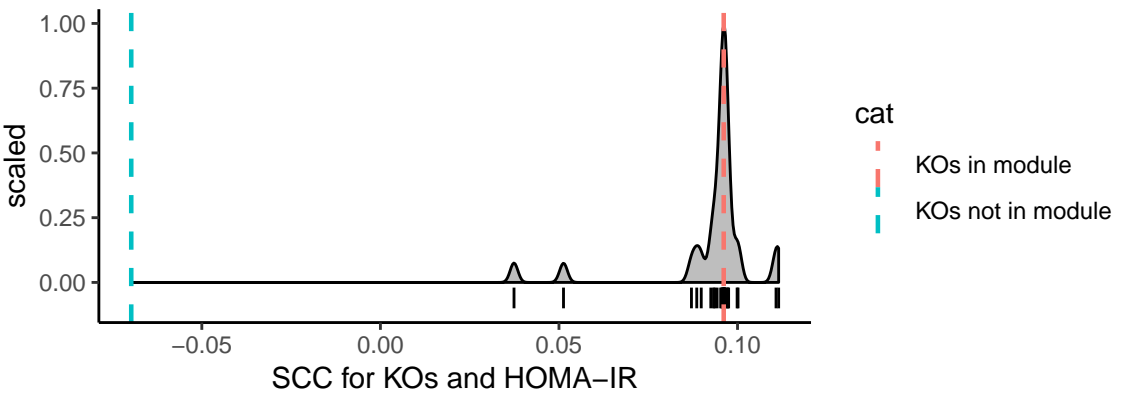
**c** KEGG module: M00019  
Valine/isoleucine biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 594



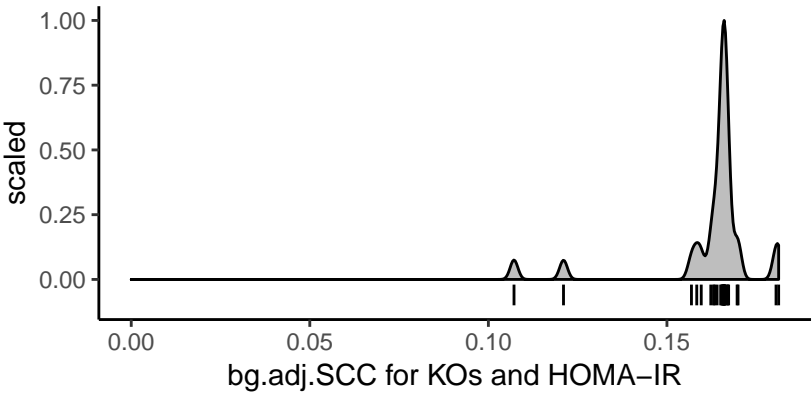
**a** KEGG module: M00348  
Glutathione transport system  
4 KOs in module vs all remaining 6754 KOs

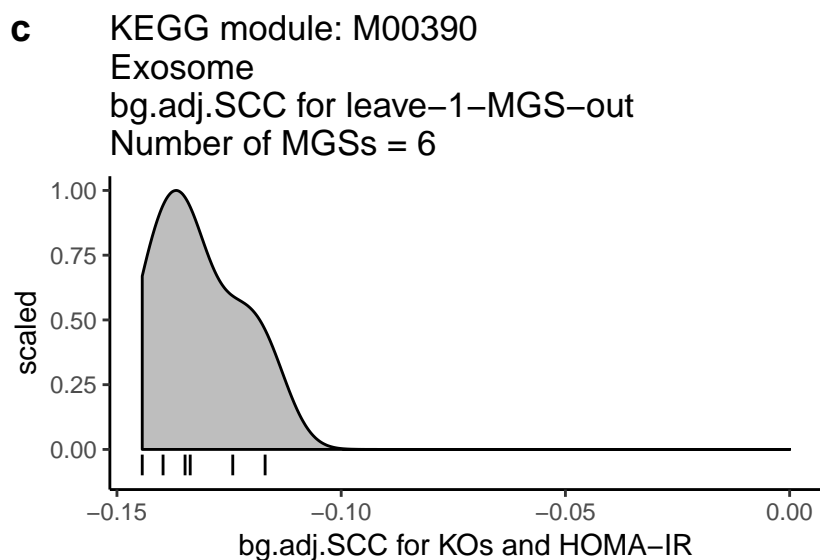
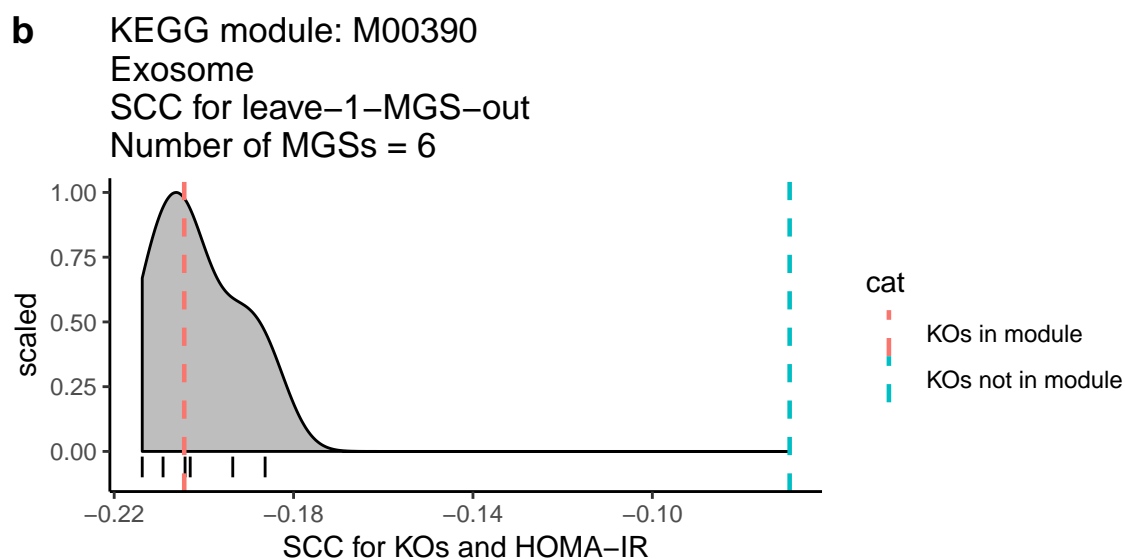
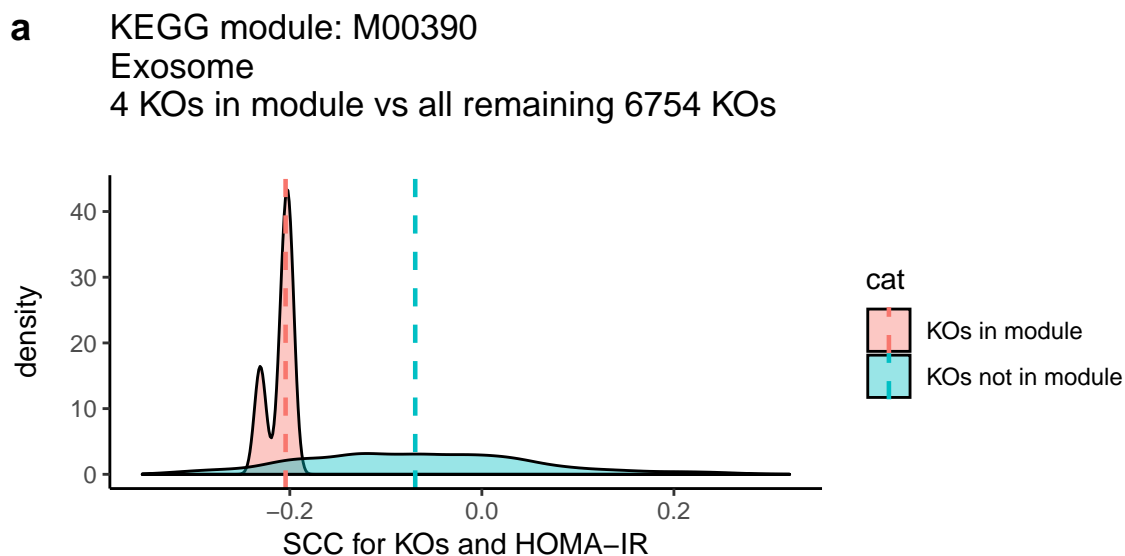


**b** KEGG module: M00348  
Glutathione transport system  
SCC for leave-1-MGS-out  
Number of MGSs = 28

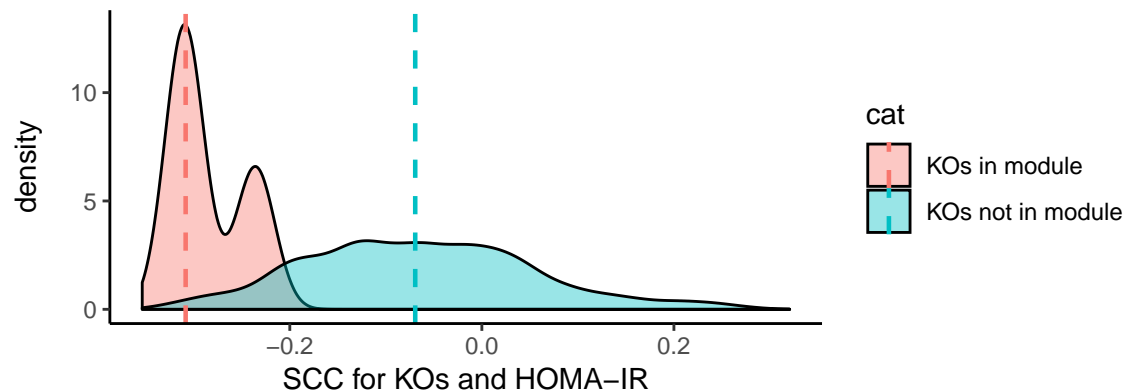


**c** KEGG module: M00348  
Glutathione transport system  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 28

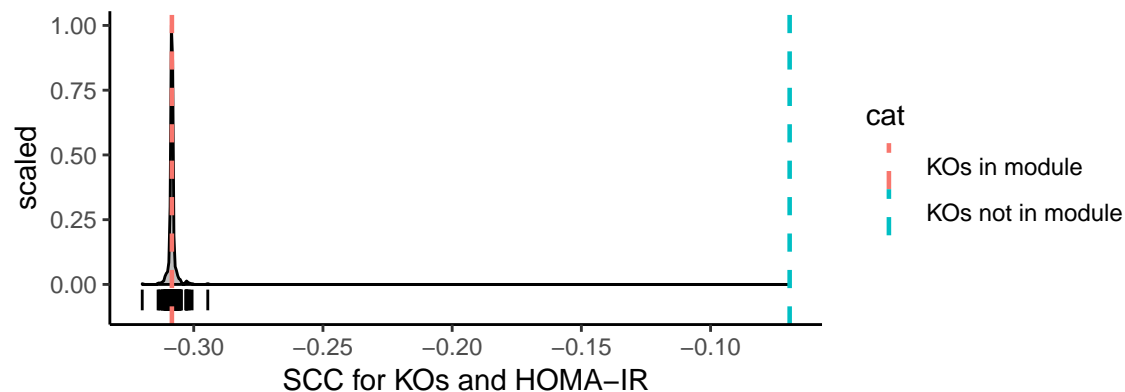




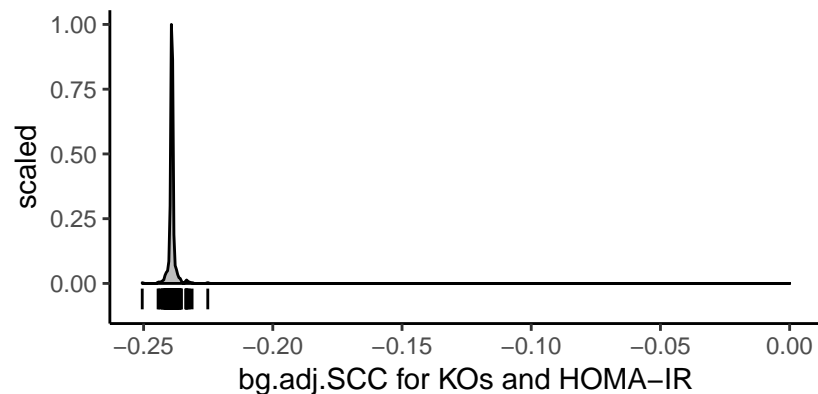
**a** KEGG module: M00188  
NitT/TauT family transport system  
3 KOs in module vs all remaining 6755 KOs



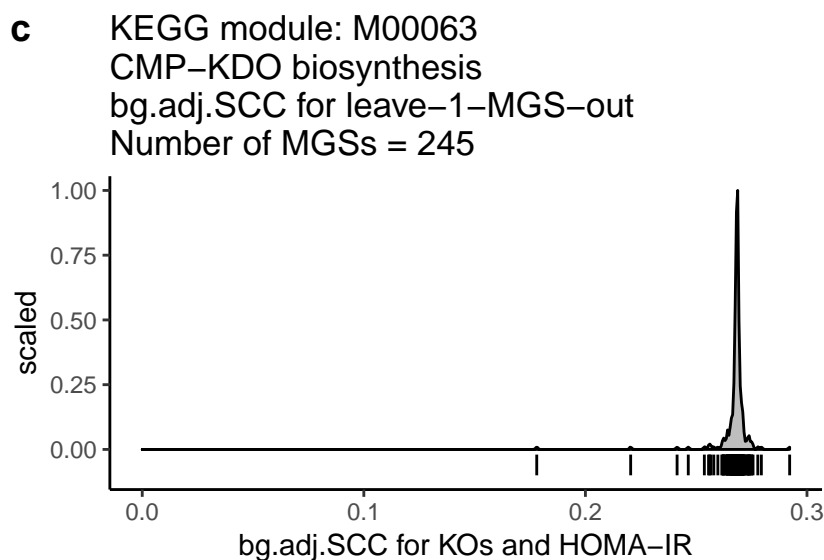
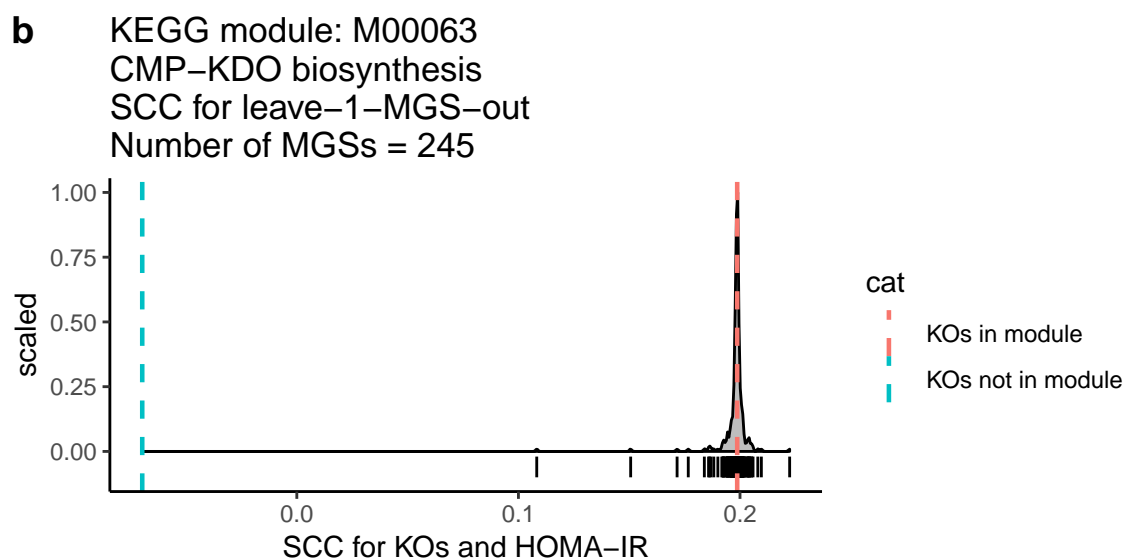
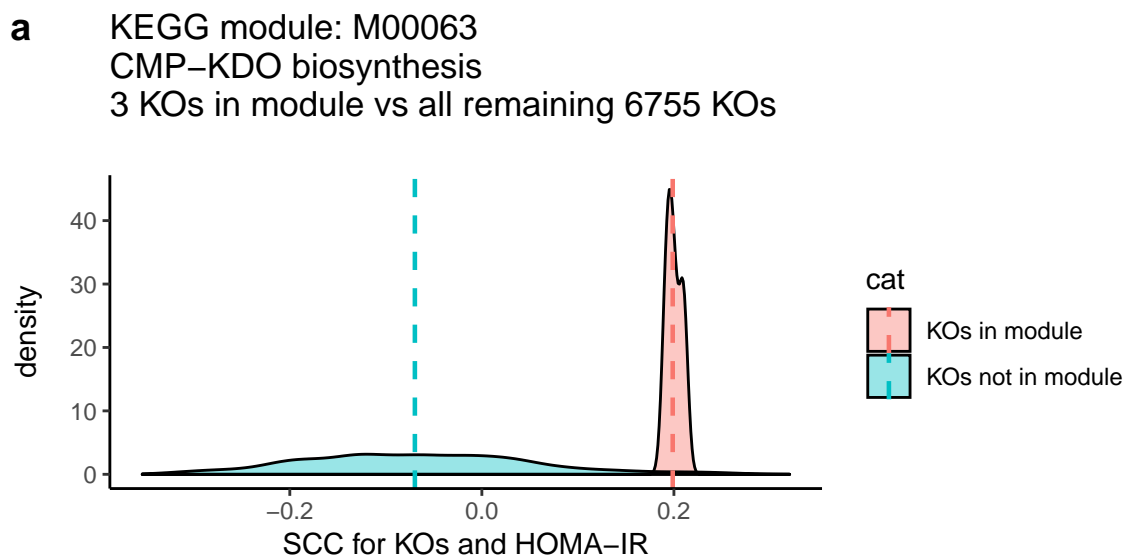
**b** KEGG module: M00188  
NitT/TauT family transport system  
SCC for leave-1-MGS-out  
Number of MGSs = 517



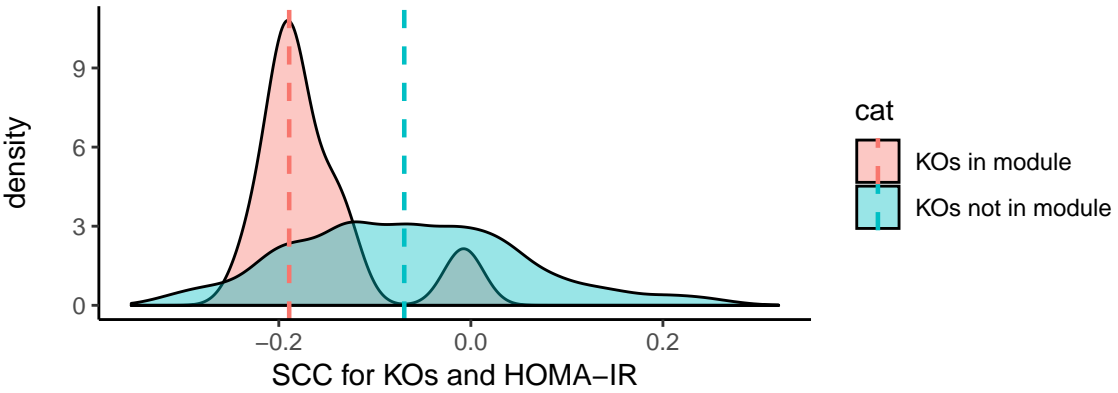
**c** KEGG module: M00188  
NitT/TauT family transport system  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 517



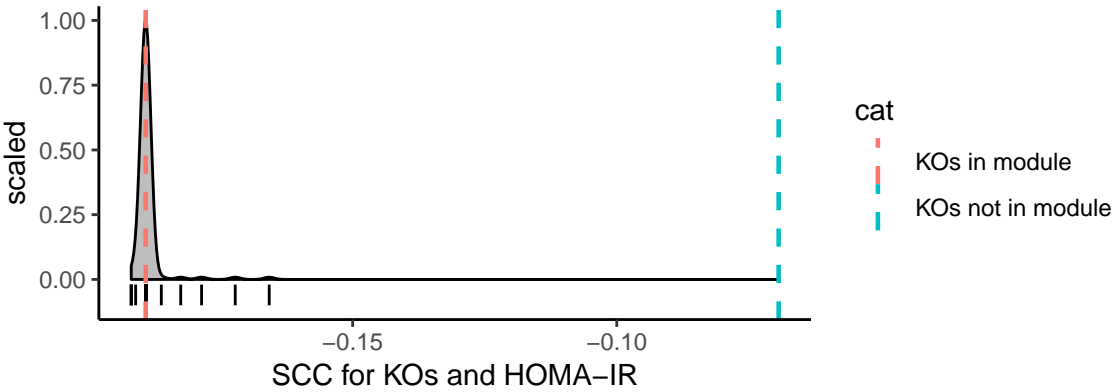




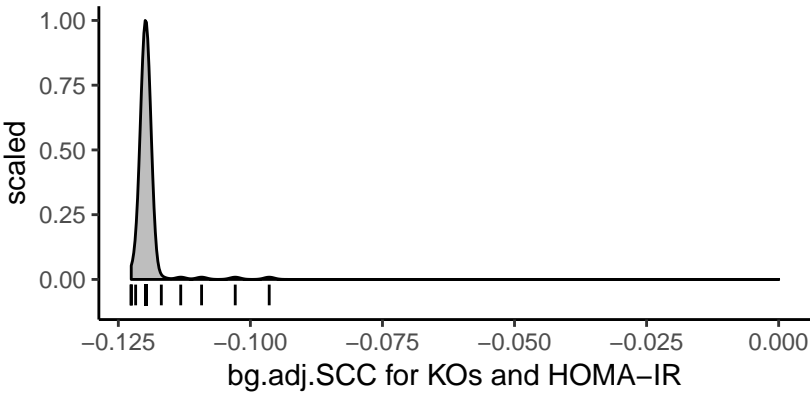
**a** KEGG module: M00563  
Methanogenesis  
13 KOs in module vs all remaining 6745 KOs



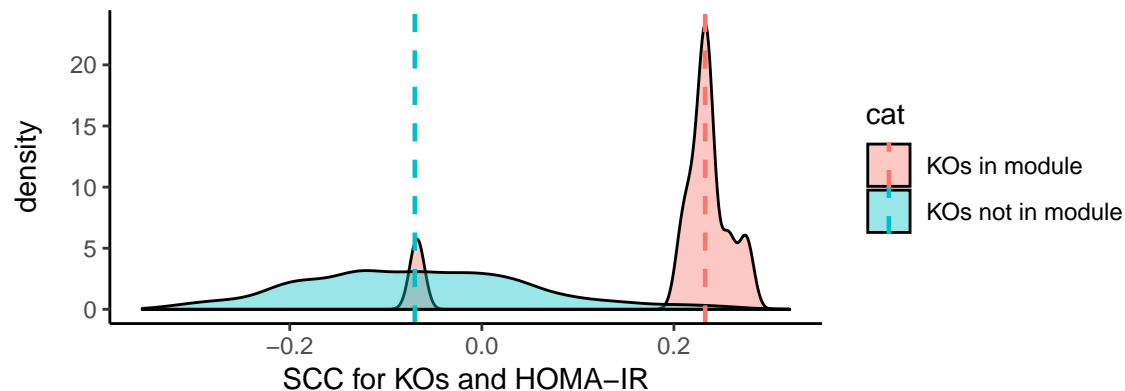
**b** KEGG module: M00563  
Methanogenesis  
SCC for leave-1-MGS-out  
Number of MGSs = 125



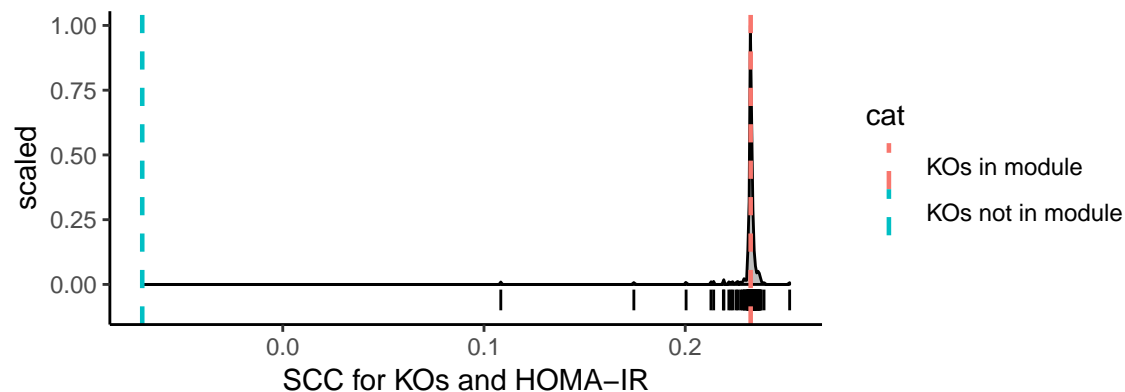
**c** KEGG module: M00563  
Methanogenesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 125



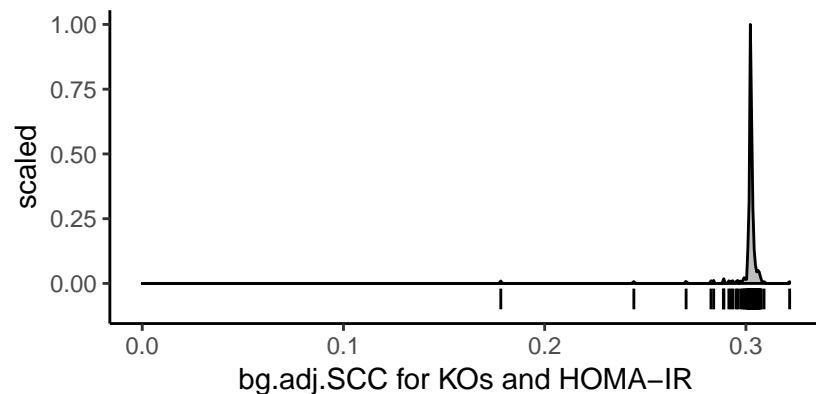
**a** KEGG module: M00060  
Lipopolysaccharide biosynthesis  
10 KOs in module vs all remaining 6748 KOs

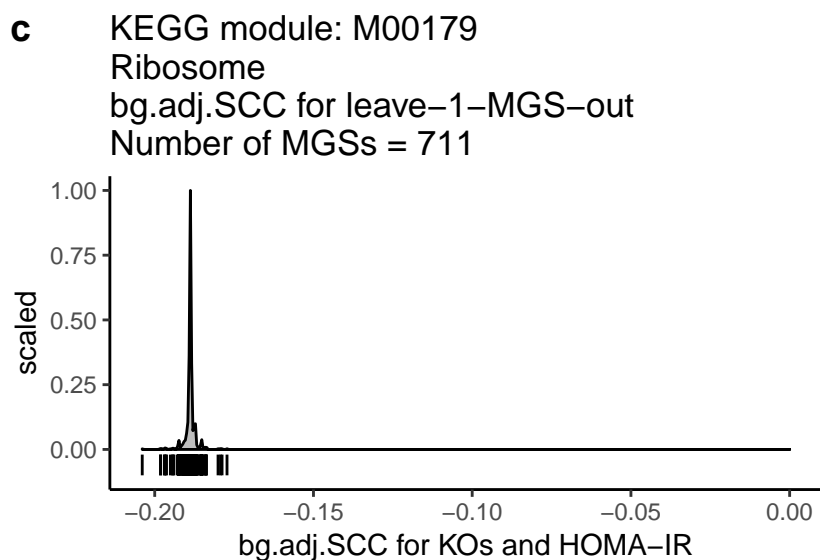
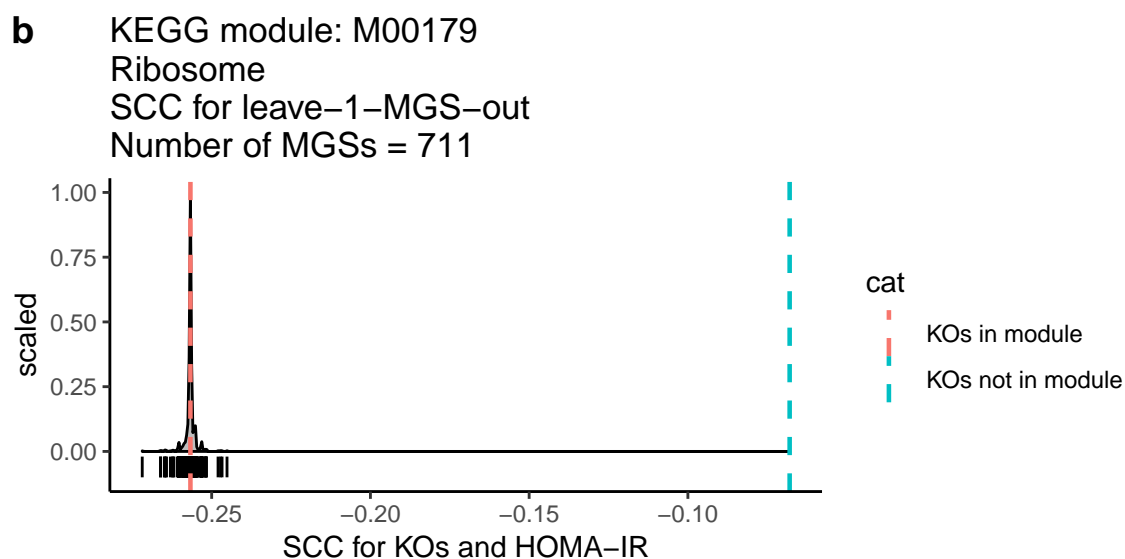
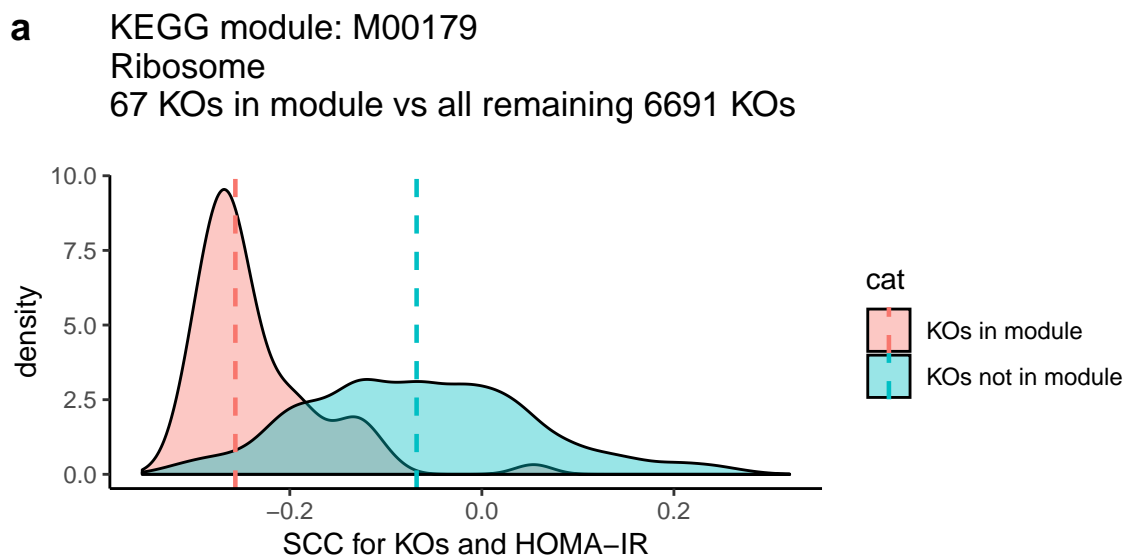


**b** KEGG module: M00060  
Lipopolysaccharide biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 237

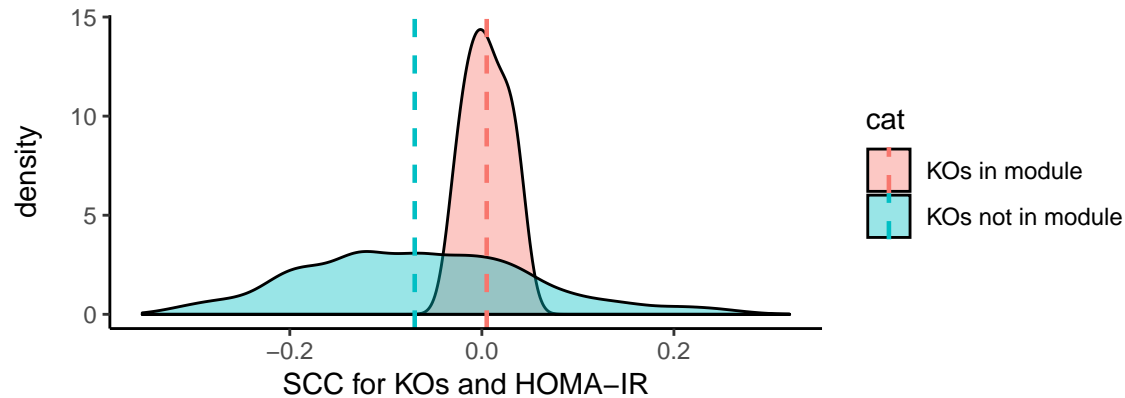


**c** KEGG module: M00060  
Lipopolysaccharide biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 237

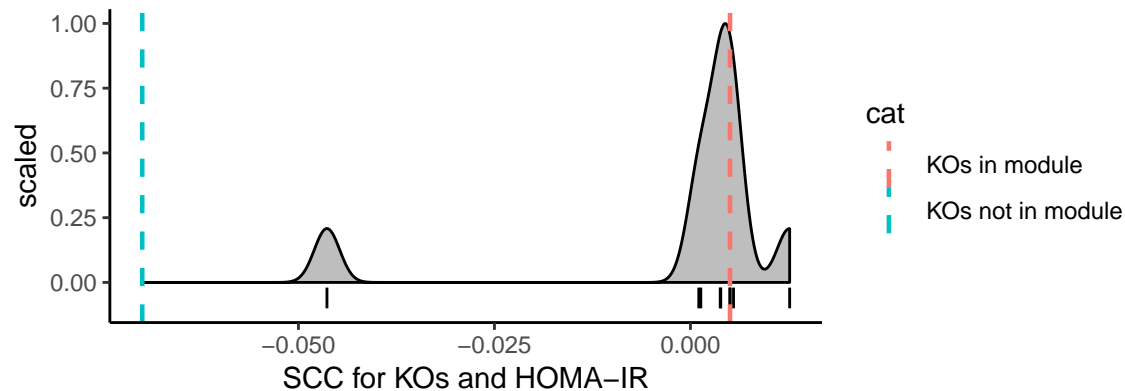




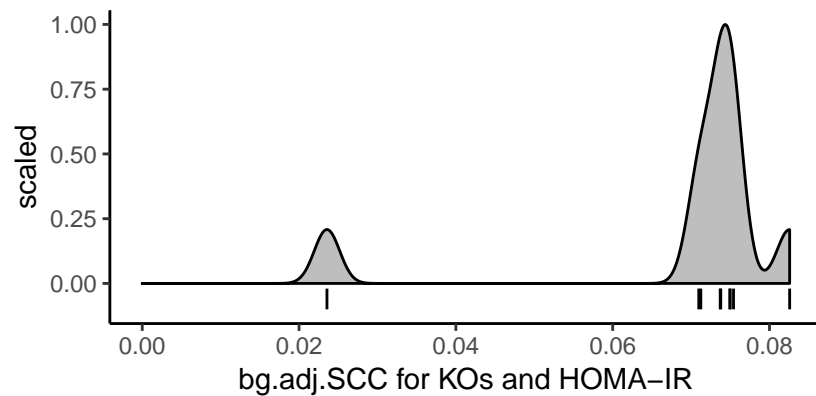
**a** KEGG module: M00332  
Type III secretion system  
15 KOs in module vs all remaining 6743 KOs



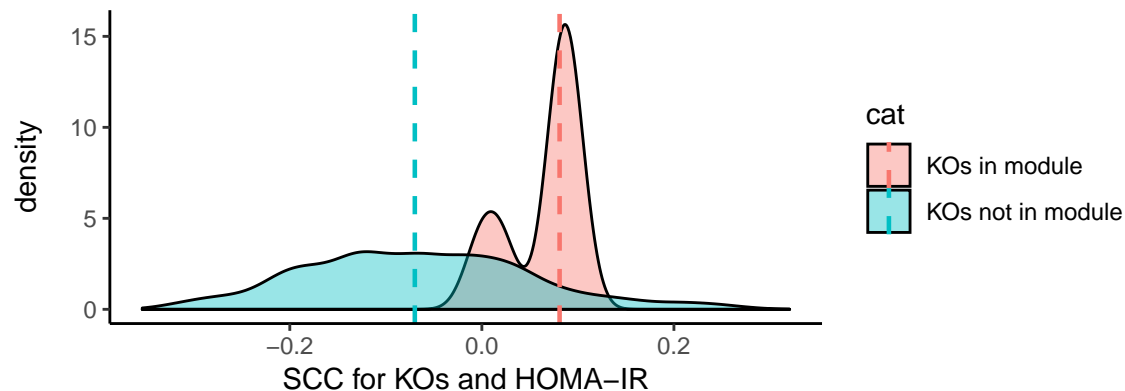
**b** KEGG module: M00332  
Type III secretion system  
SCC for leave-1-MGS-out  
Number of MGSs = 9



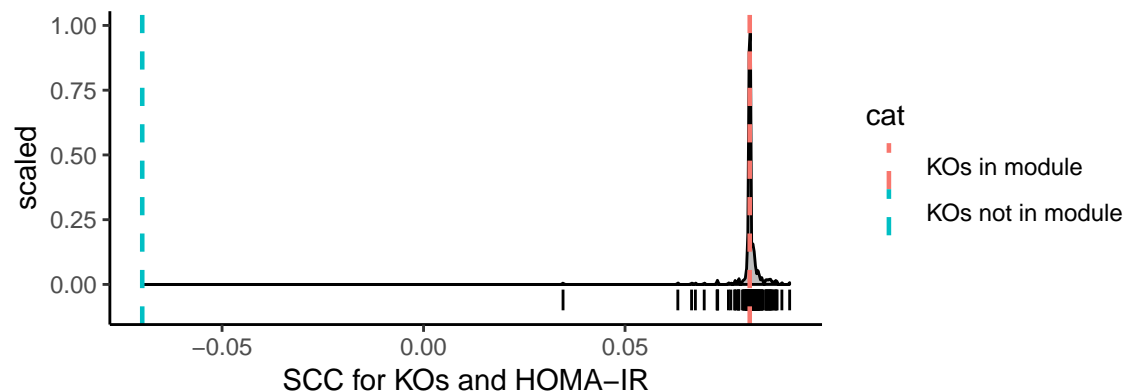
**c** KEGG module: M00332  
Type III secretion system  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 9



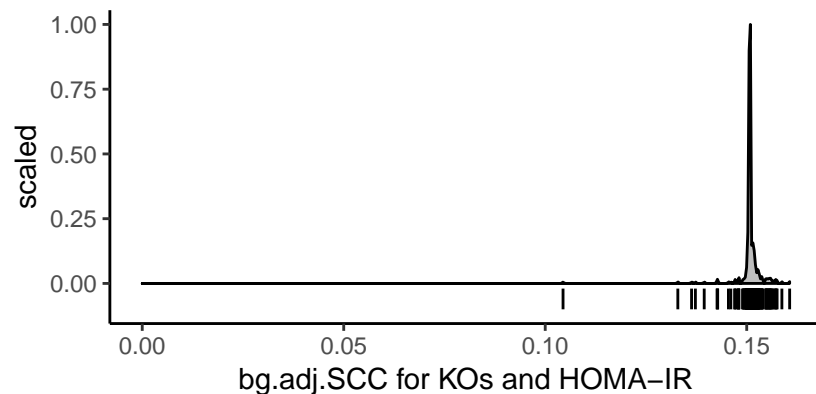
**a** KEGG module: M00122  
Cobalamin biosynthesis  
9 KOs in module vs all remaining 6749 KOs



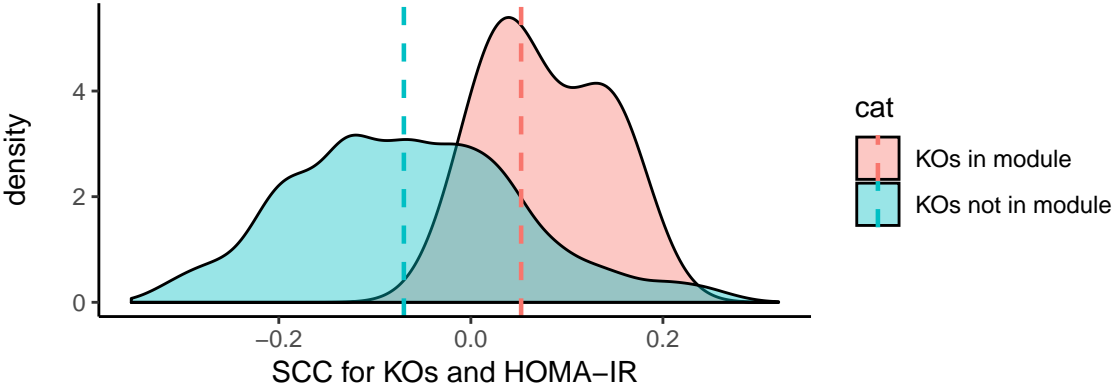
**b** KEGG module: M00122  
Cobalamin biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 396



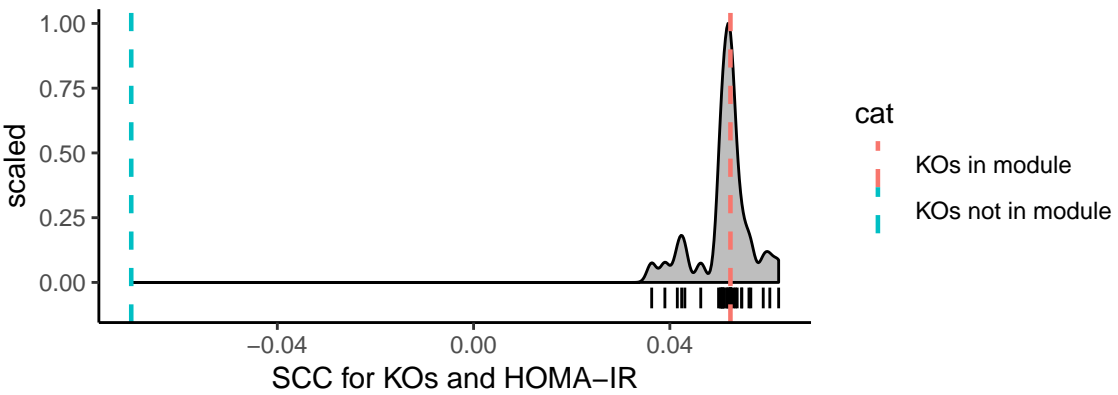
**c** KEGG module: M00122  
Cobalamin biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 396



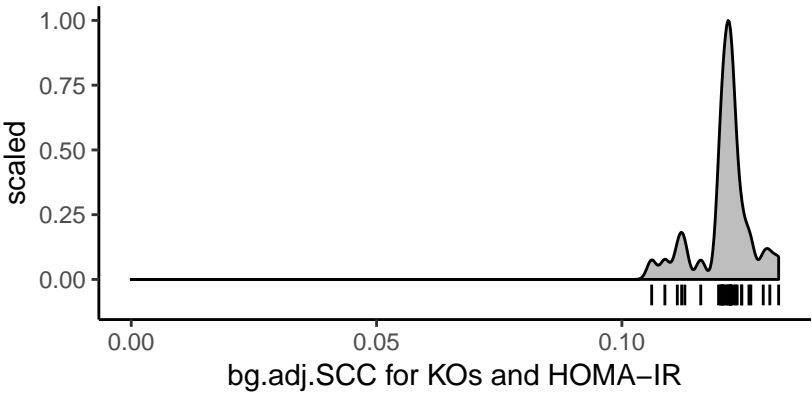
**a** KEGG module: M00440  
Nickel transport system  
5 KOs in module vs all remaining 6753 KOs



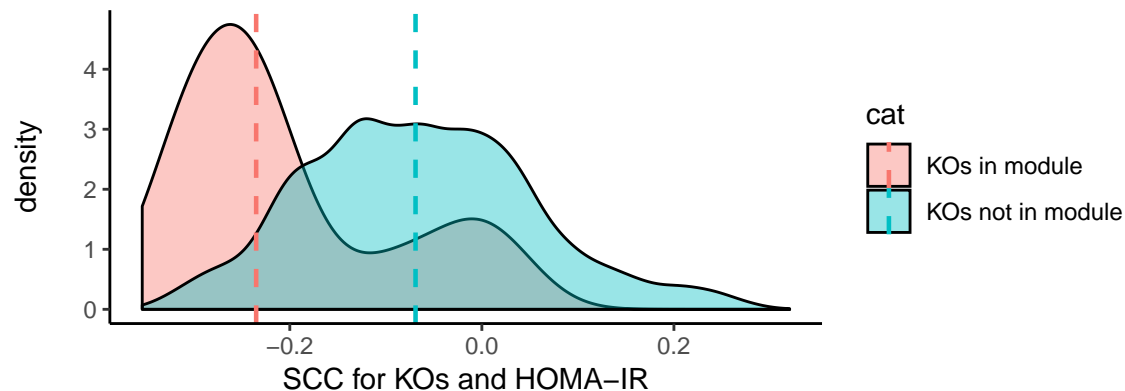
**b** KEGG module: M00440  
Nickel transport system  
SCC for leave-1-MGS-out  
Number of MGSs = 34



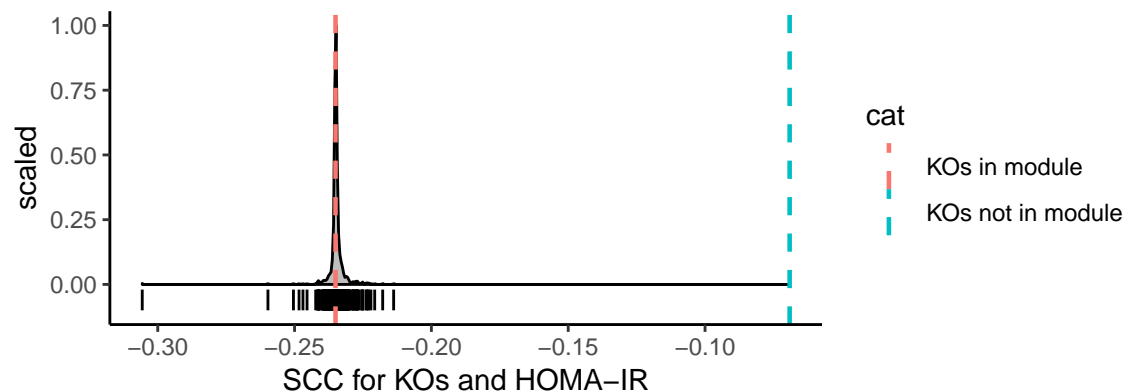
**c** KEGG module: M00440  
Nickel transport system  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 34



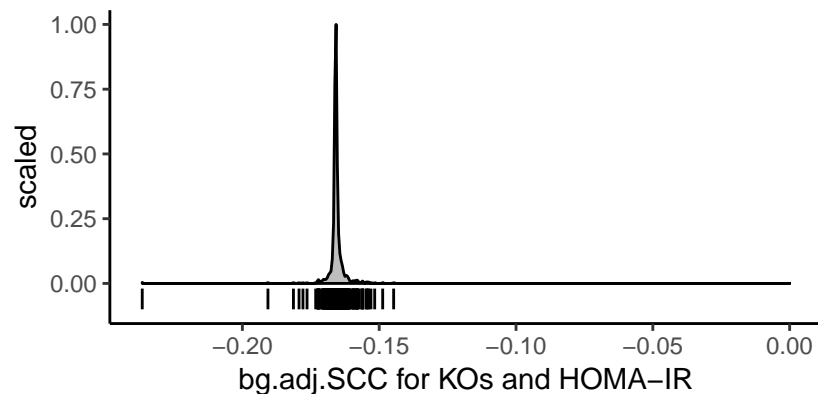
**a** KEGG module: M00360  
Aminoacyl-tRNA biosynthesis  
31 KOs in module vs all remaining 6727 KOs



**b** KEGG module: M00360  
Aminoacyl-tRNA biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 787

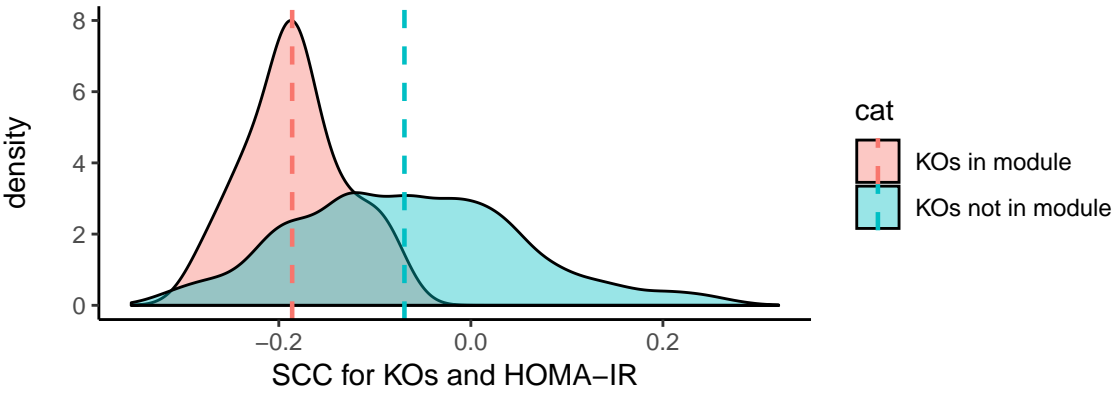


**c** KEGG module: M00360  
Aminoacyl-tRNA biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 787





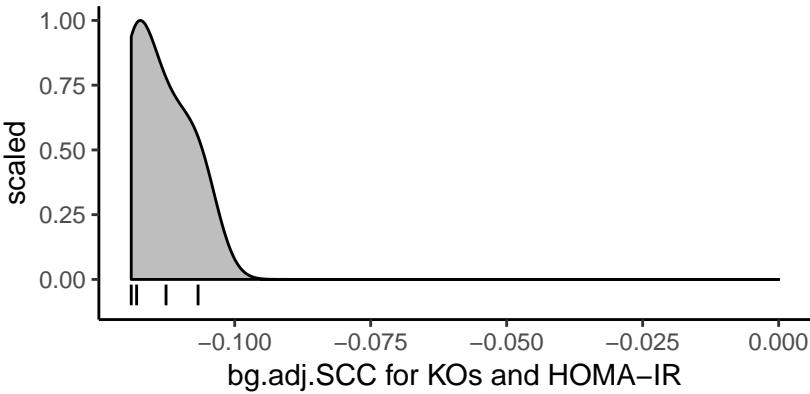
**a** KEGG module: M00184  
RNA polymerase  
16 KOs in module vs all remaining 6742 KOs



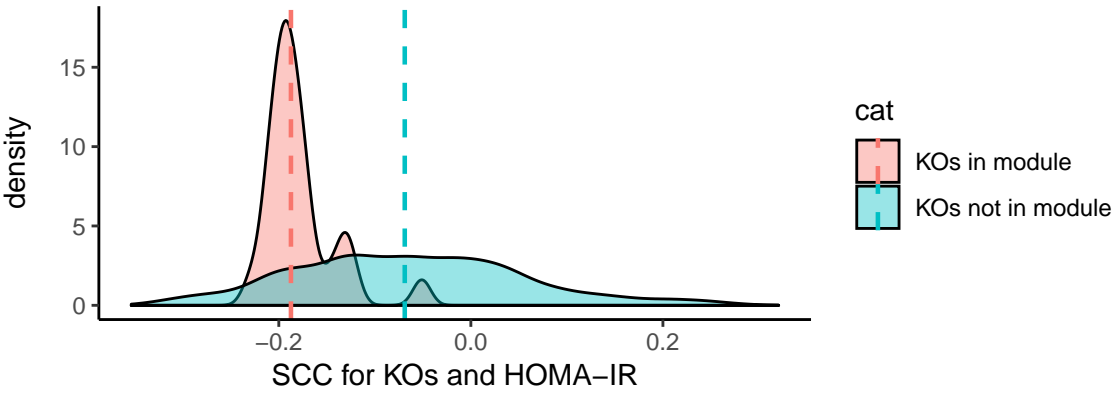
**b** KEGG module: M00184  
RNA polymerase  
SCC for leave-1-MGS-out  
Number of MGSs = 4



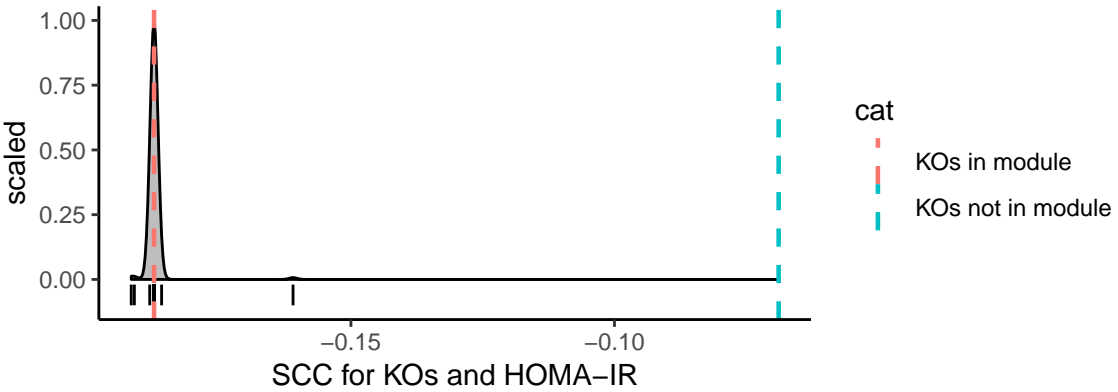
**c** KEGG module: M00184  
RNA polymerase  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 4



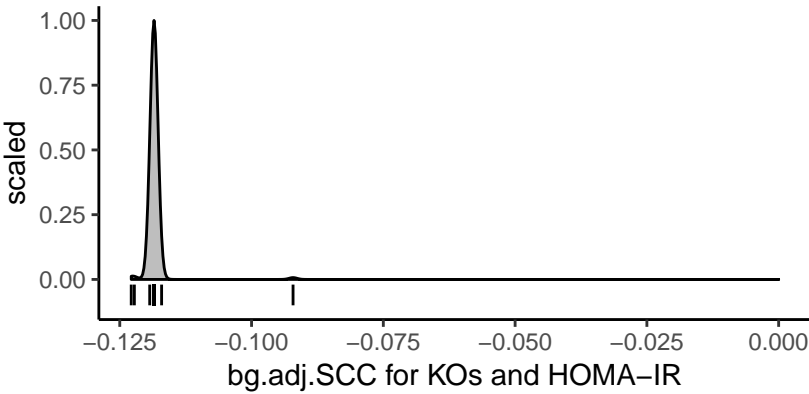
**a** KEGG module: M00567  
Methanogenesis  
27 KOs in module vs all remaining 6731 KOs

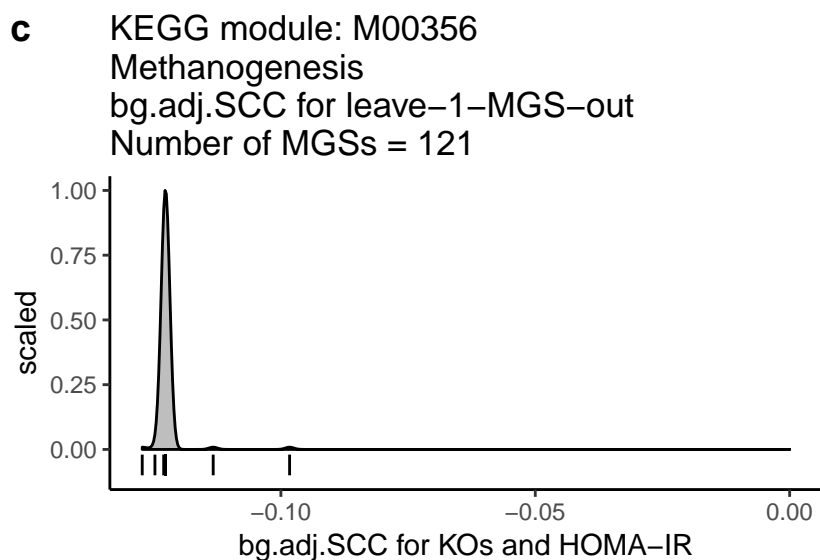
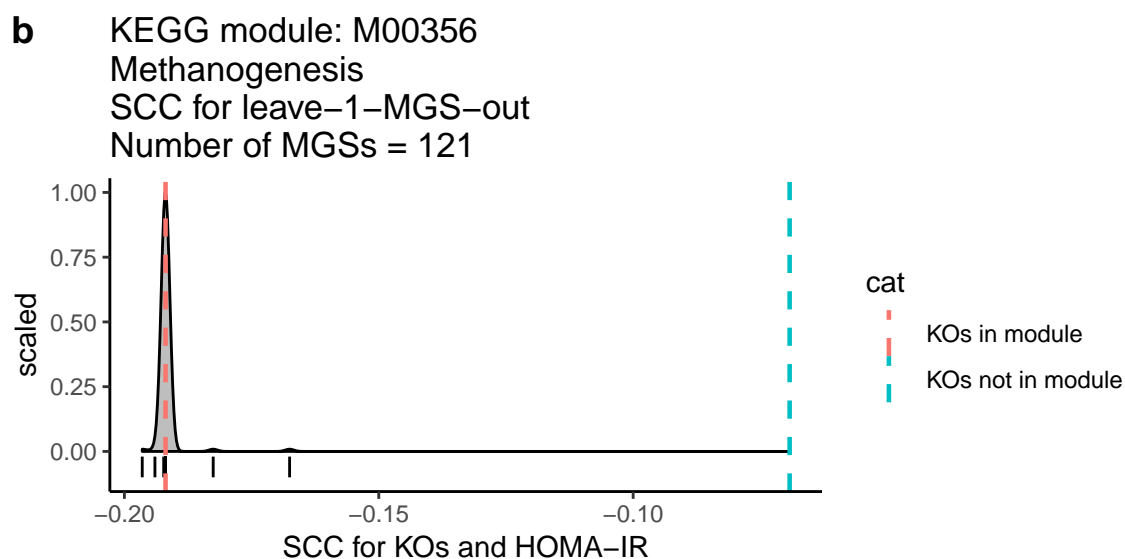
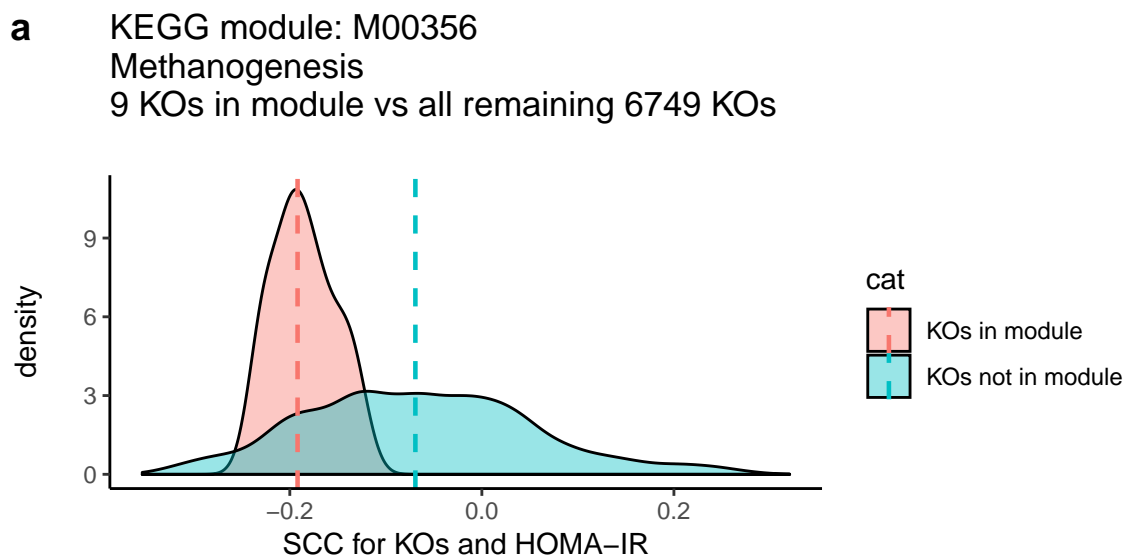


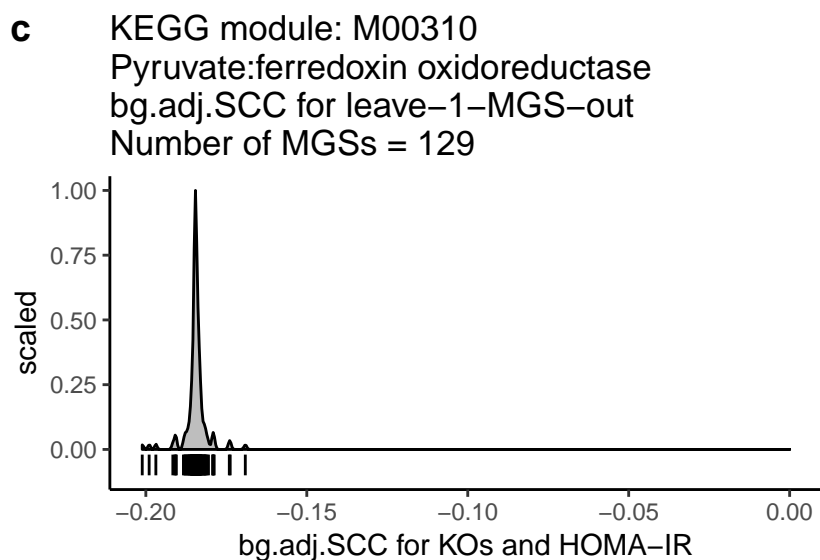
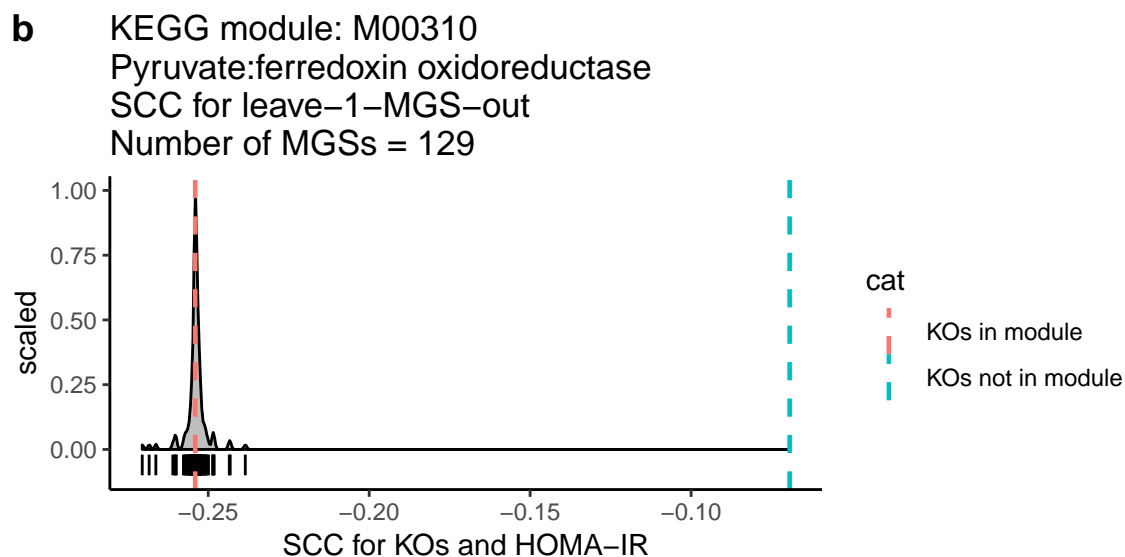
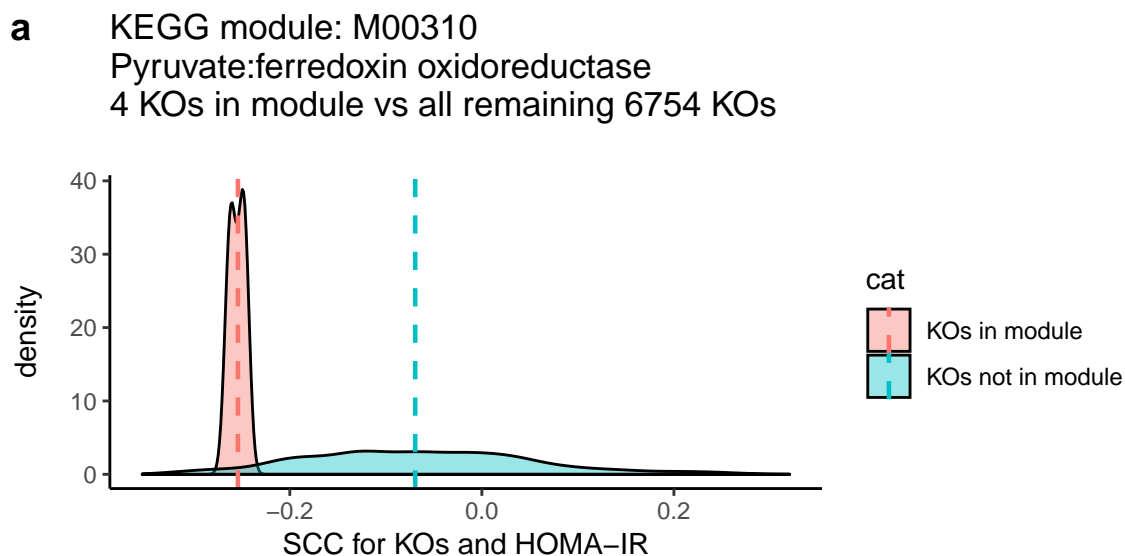
**b** KEGG module: M00567  
Methanogenesis  
SCC for leave-1-MGS-out  
Number of MGSs = 145

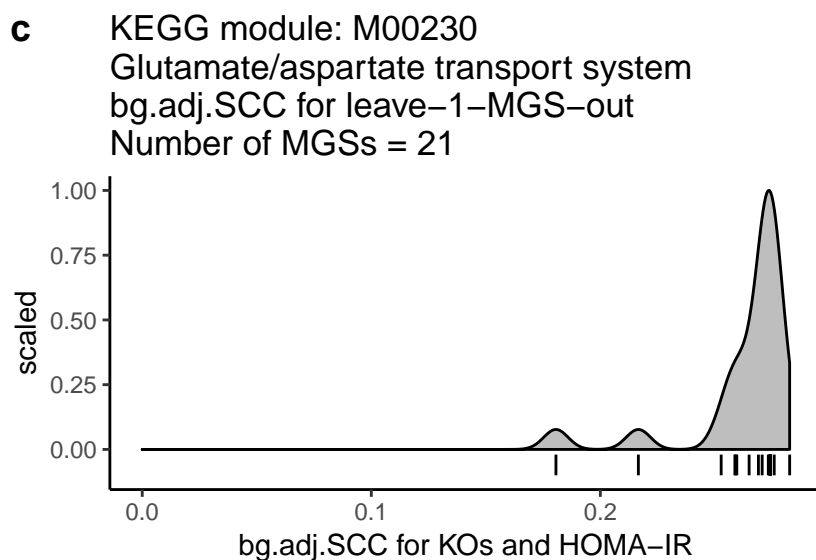
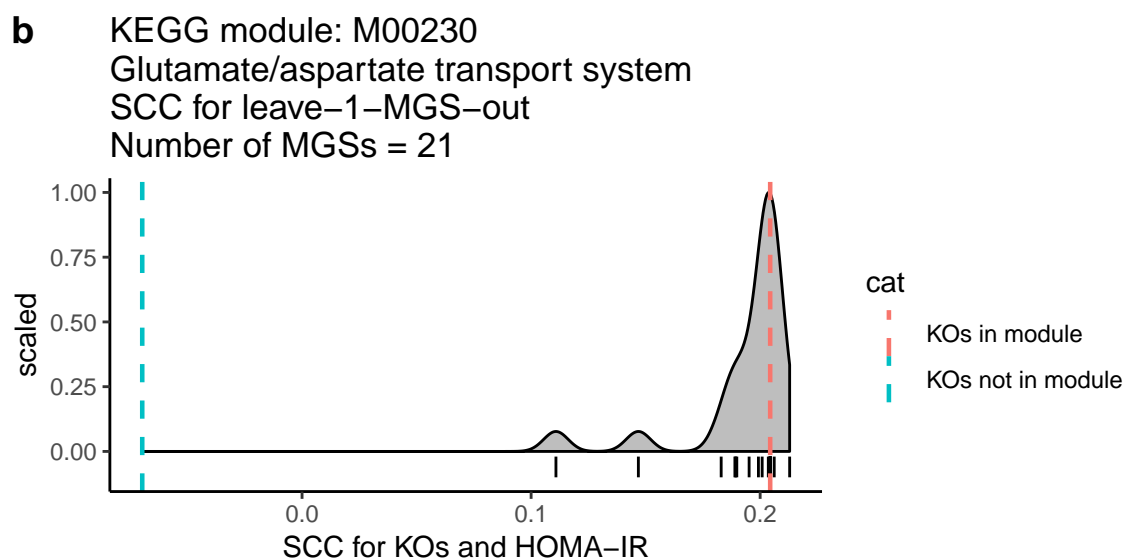
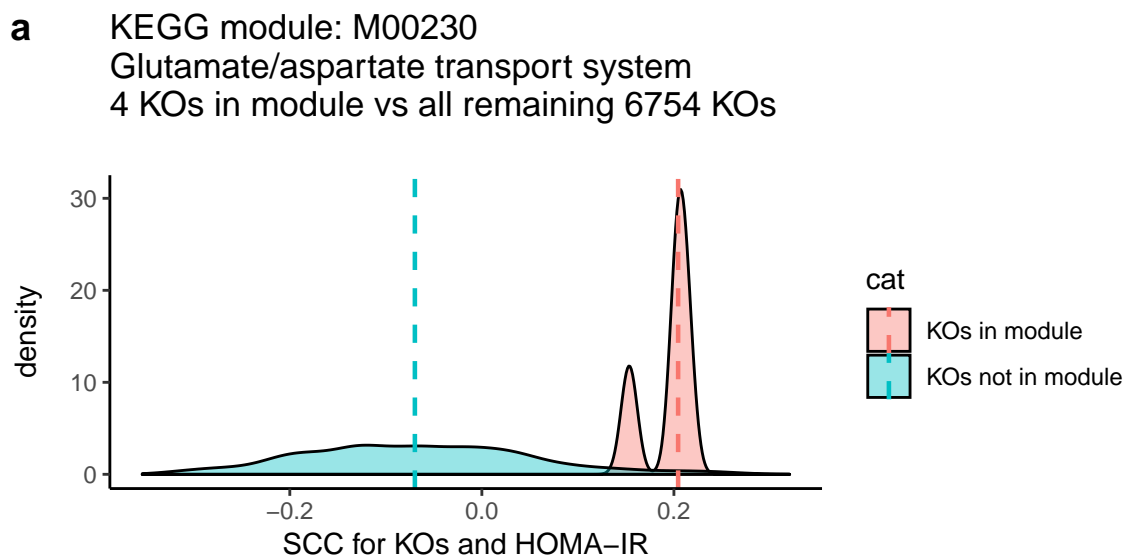


**c** KEGG module: M00567  
Methanogenesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 145

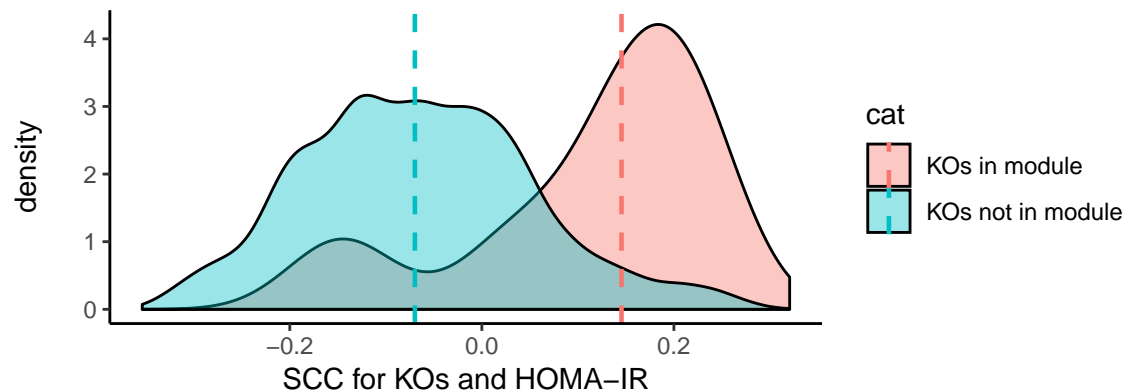




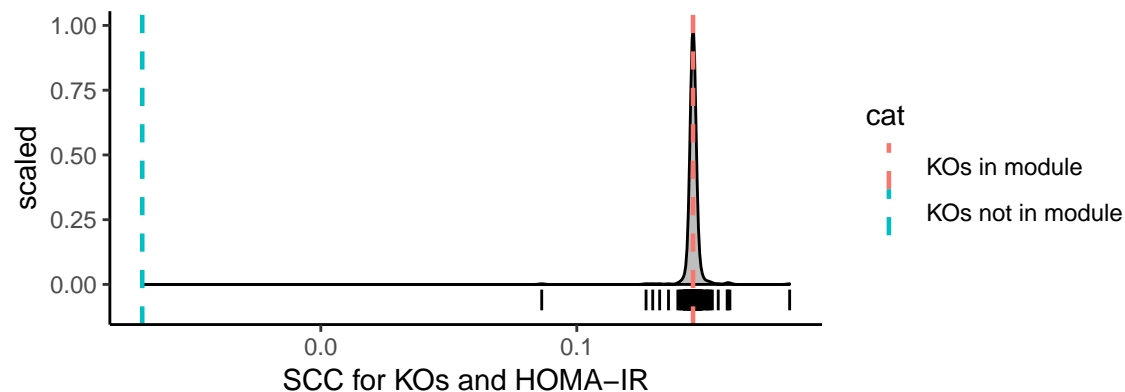




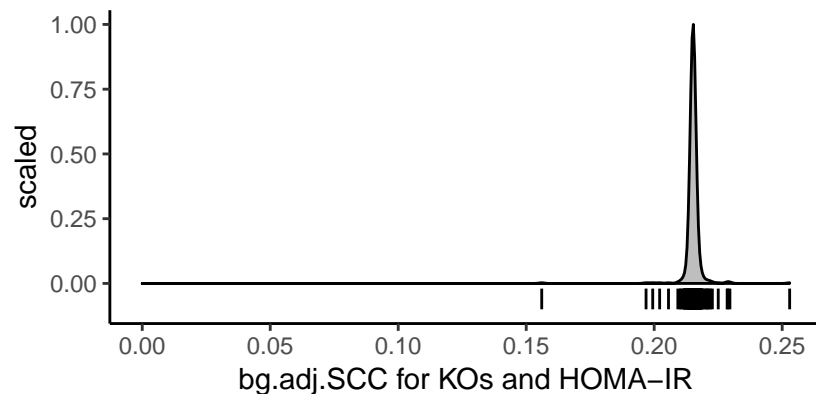
**a** KEGG module: M00127  
Thiamine biosynthesis  
8 KOs in module vs all remaining 6750 KOs



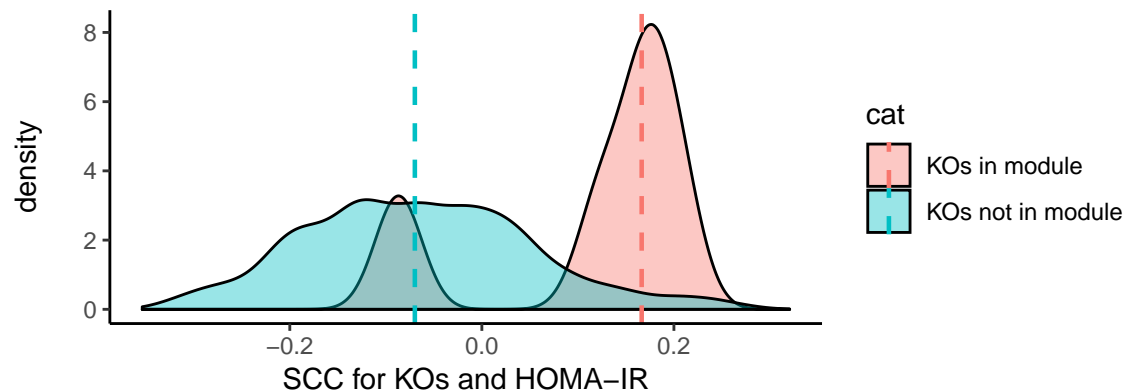
**b** KEGG module: M00127  
Thiamine biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 484



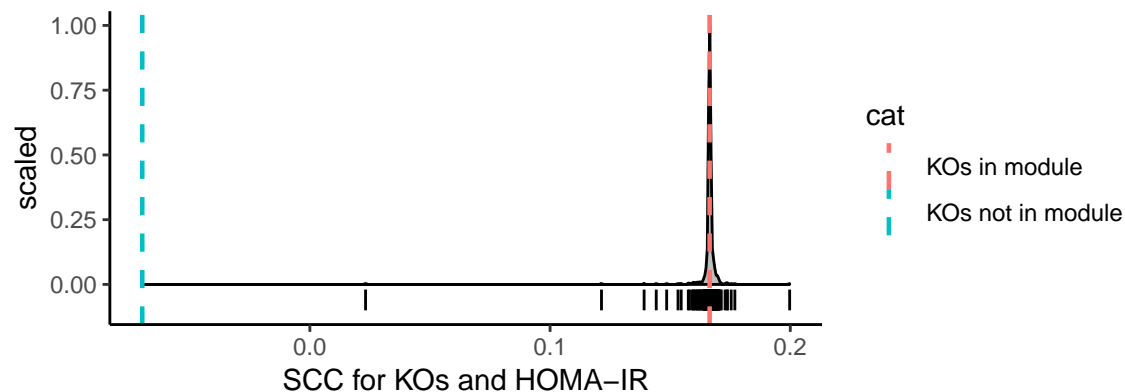
**c** KEGG module: M00127  
Thiamine biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 484



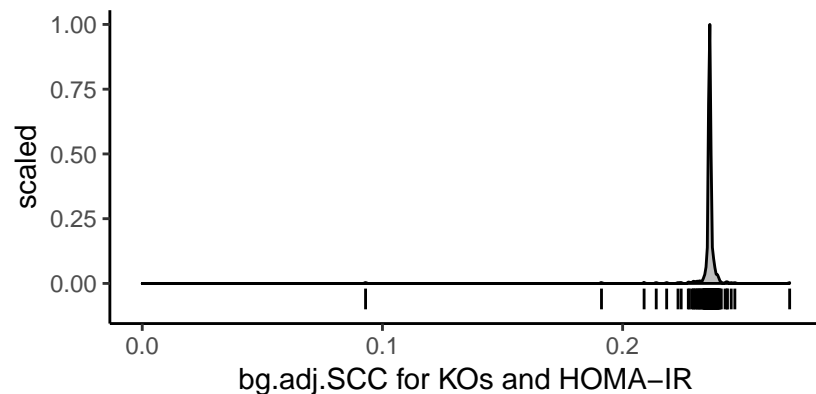
**a** KEGG module: M00023  
Tryptophan biosynthesis  
14 KOs in module vs all remaining 6744 KOs



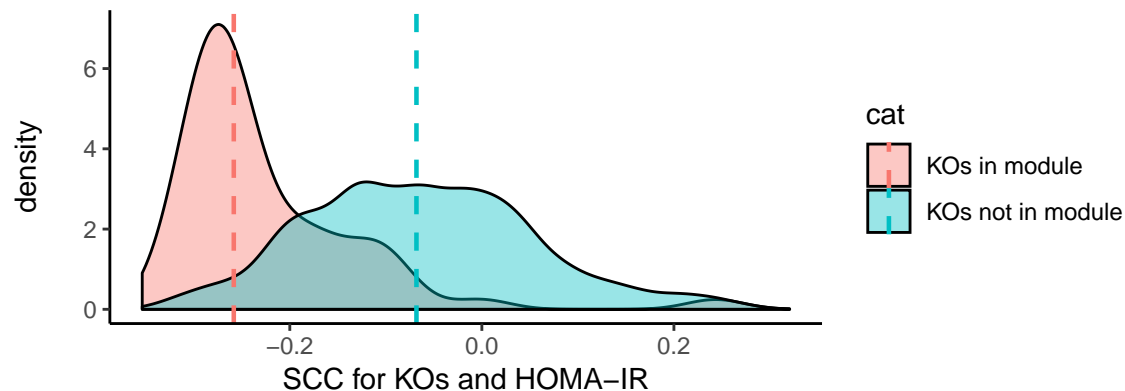
**b** KEGG module: M00023  
Tryptophan biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 487



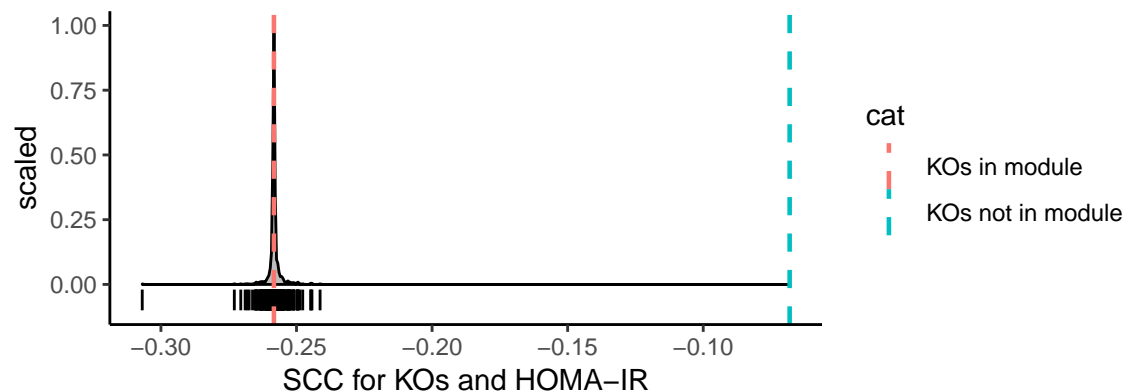
**c** KEGG module: M00023  
Tryptophan biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 487



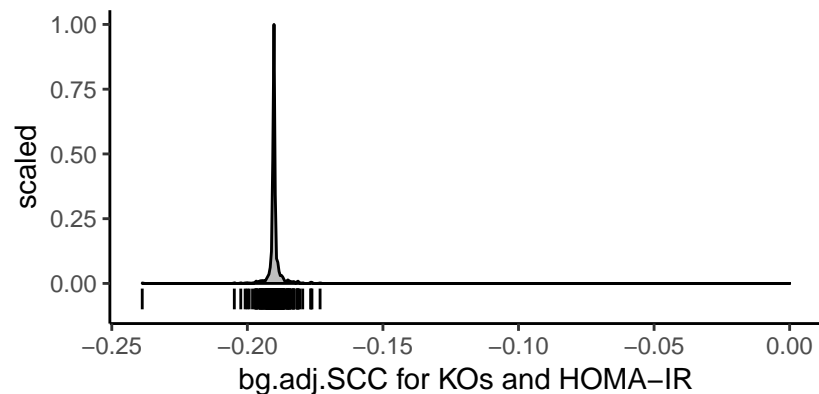
**a** KEGG module: M00178  
Ribosome  
55 KOs in module vs all remaining 6703 KOs



**b** KEGG module: M00178  
Ribosome  
SCC for leave-1-MGS-out  
Number of MGSs = 767

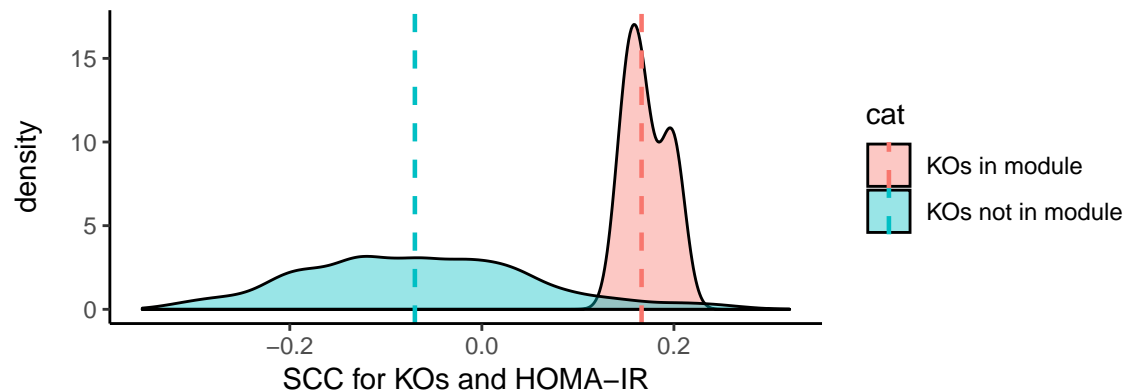


**c** KEGG module: M00178  
Ribosome  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 767

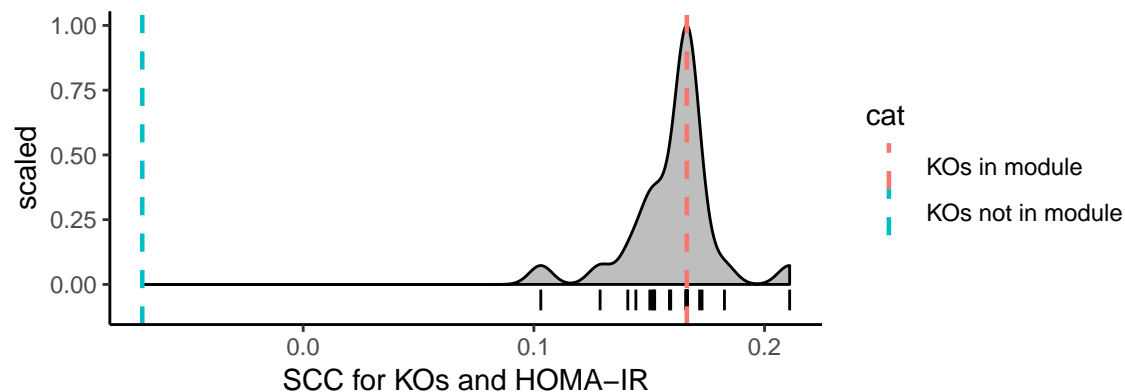




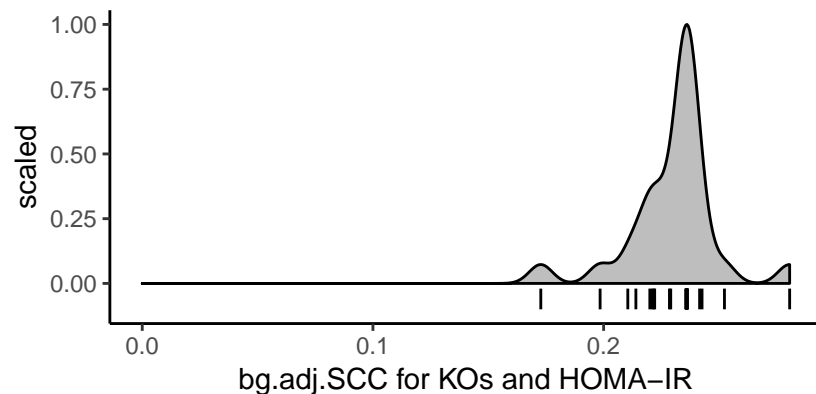
**a** KEGG module: M00259  
Heme transport system  
3 KOs in module vs all remaining 6755 KOs

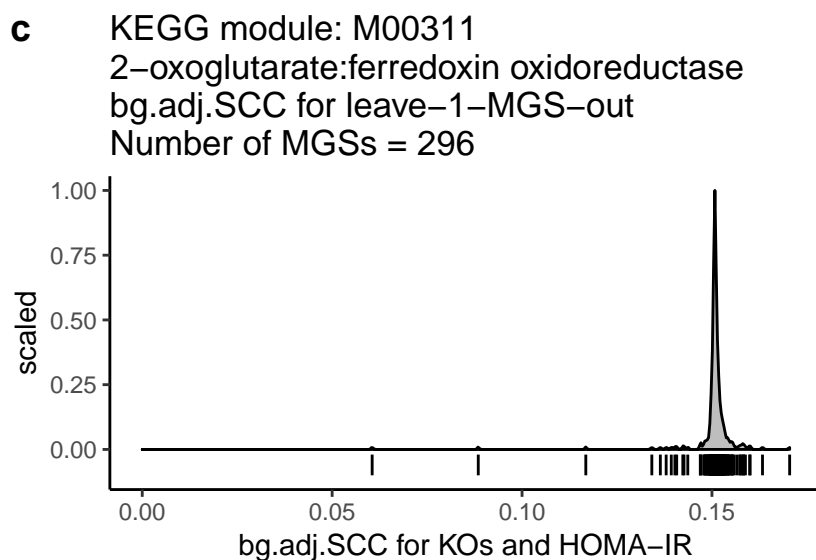
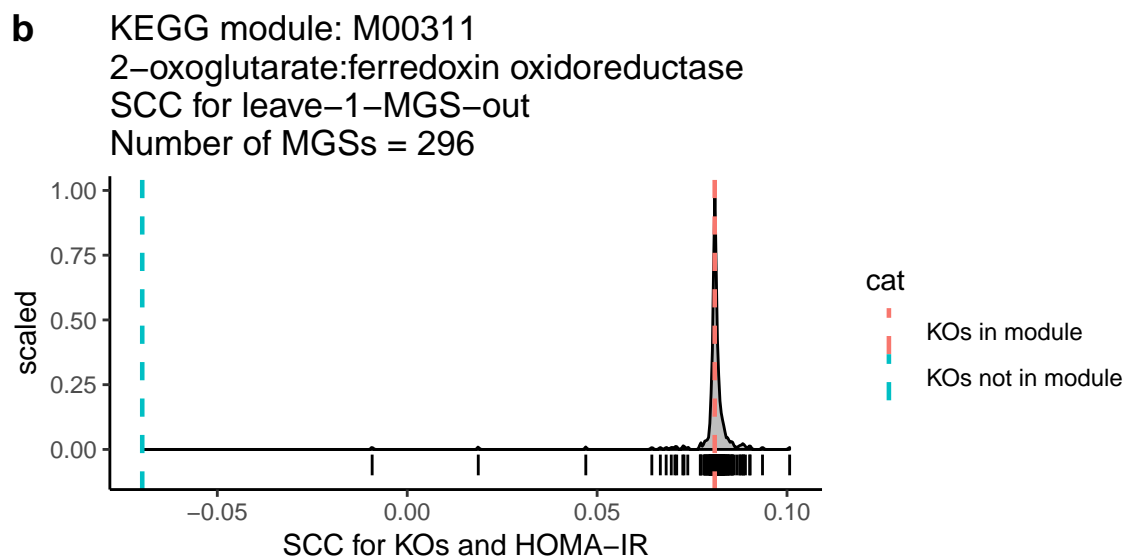
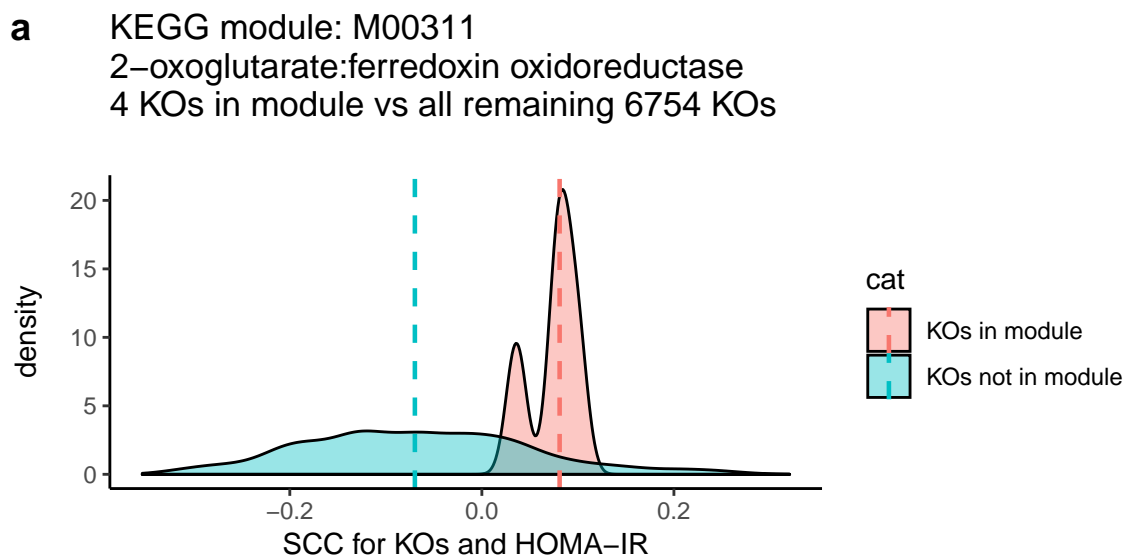


**b** KEGG module: M00259  
Heme transport system  
SCC for leave-1-MGS-out  
Number of MGSs = 26

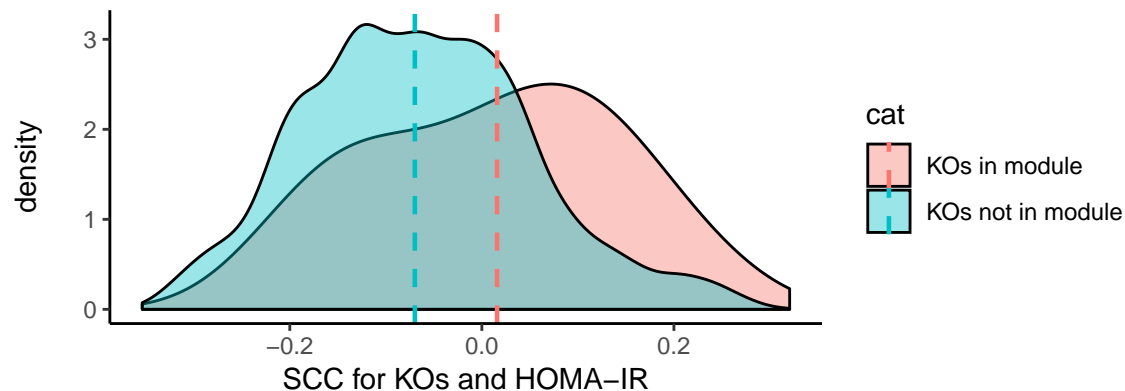


**c** KEGG module: M00259  
Heme transport system  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 26

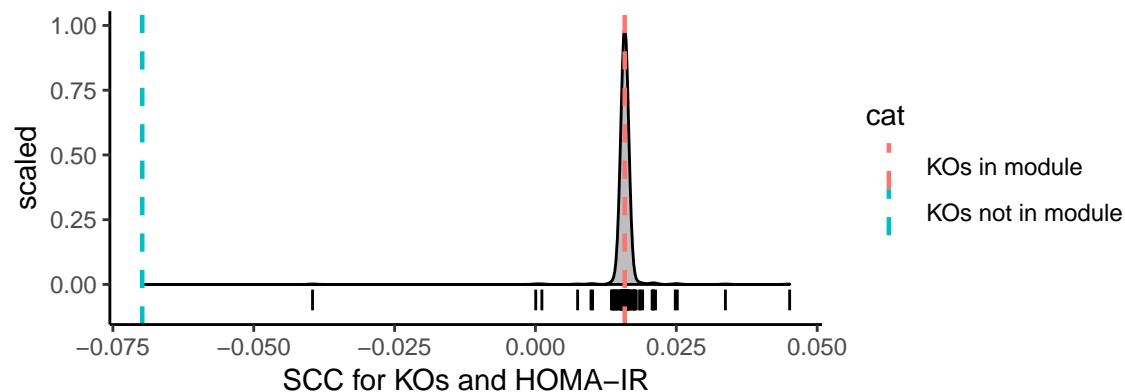




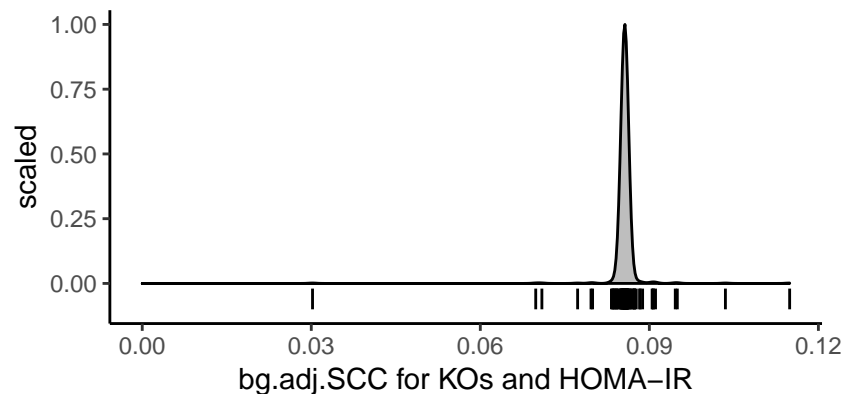
**a** KEGG module: M00048  
Inosine monophosphate biosynthesis  
20 KOs in module vs all remaining 6738 KOs

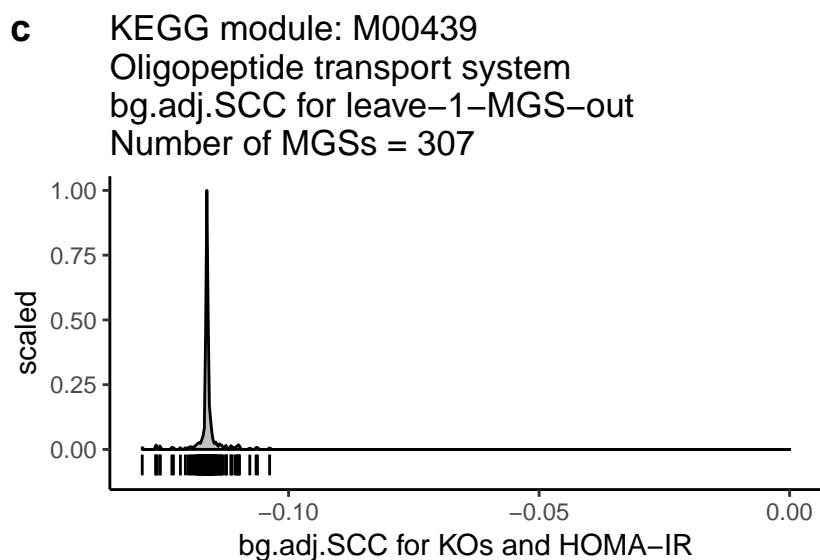
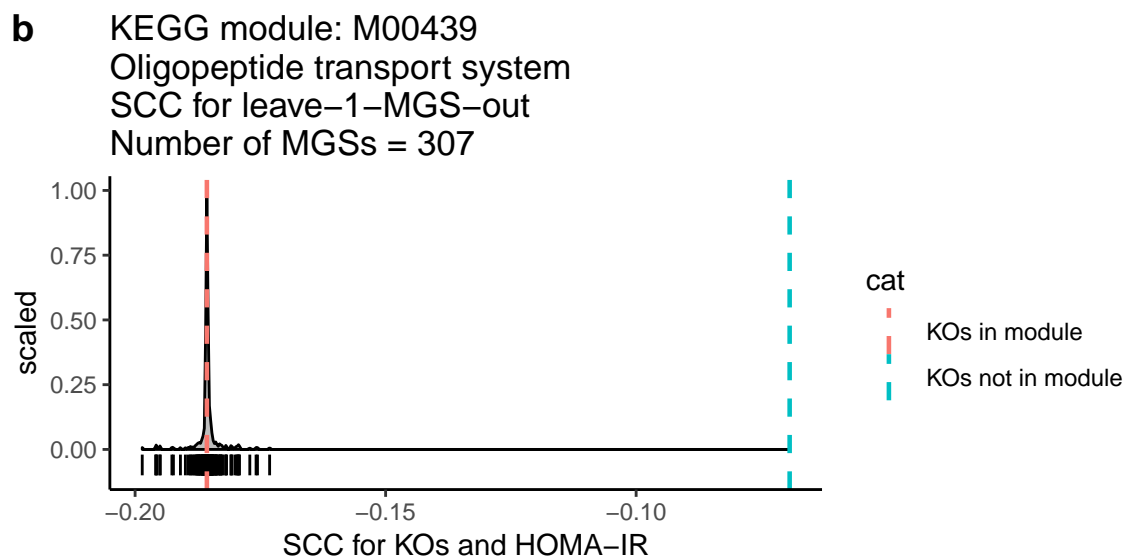
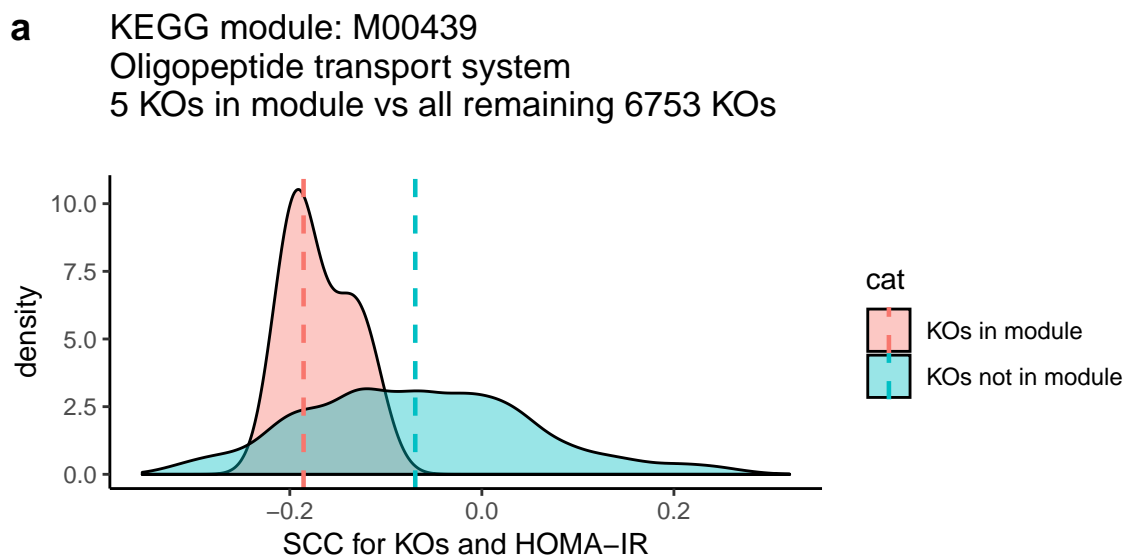


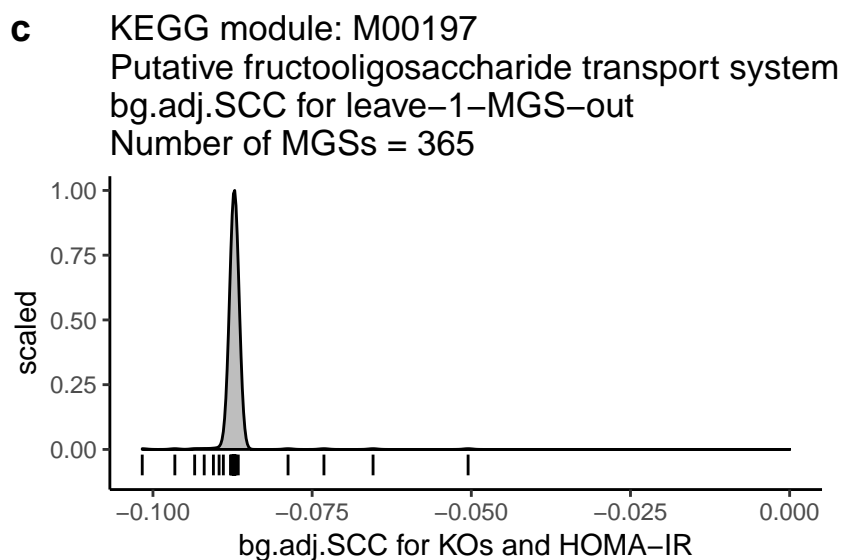
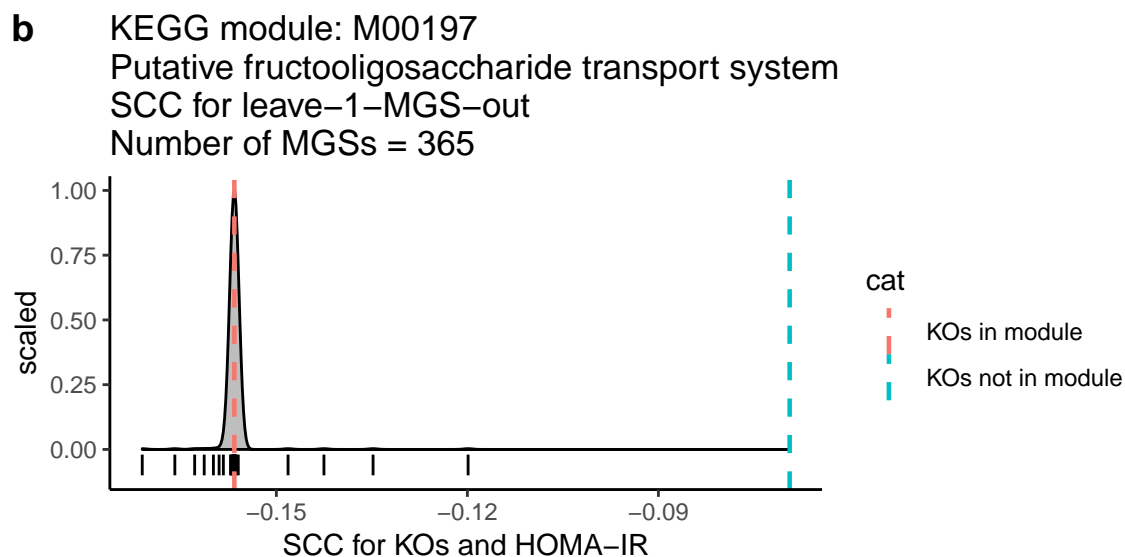
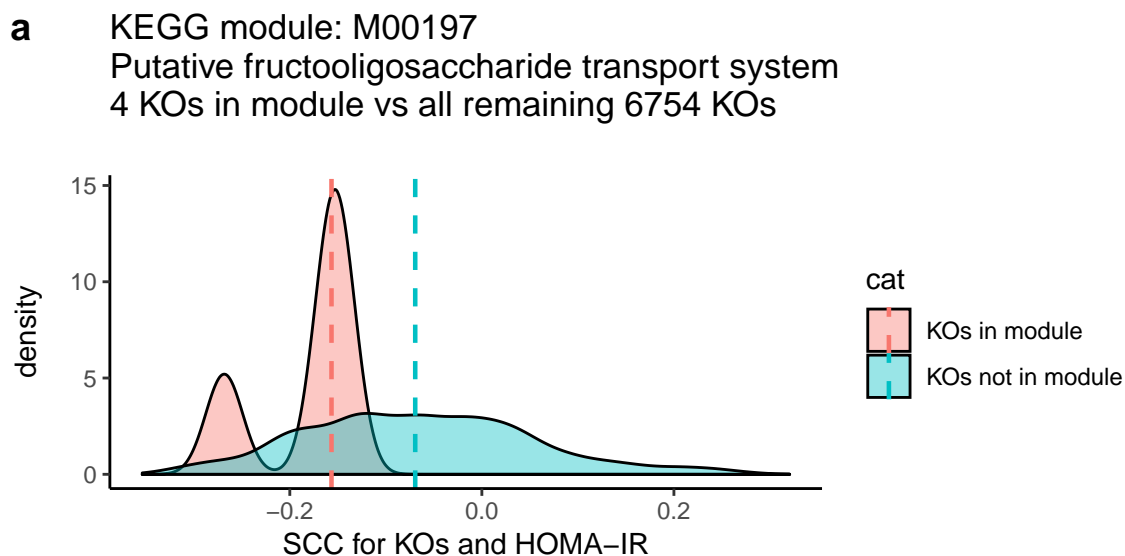
**b** KEGG module: M00048  
Inosine monophosphate biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 688

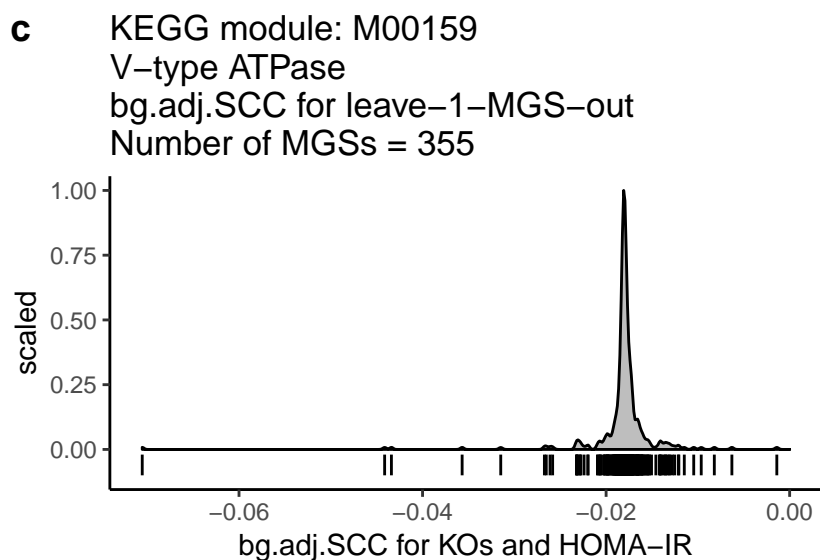
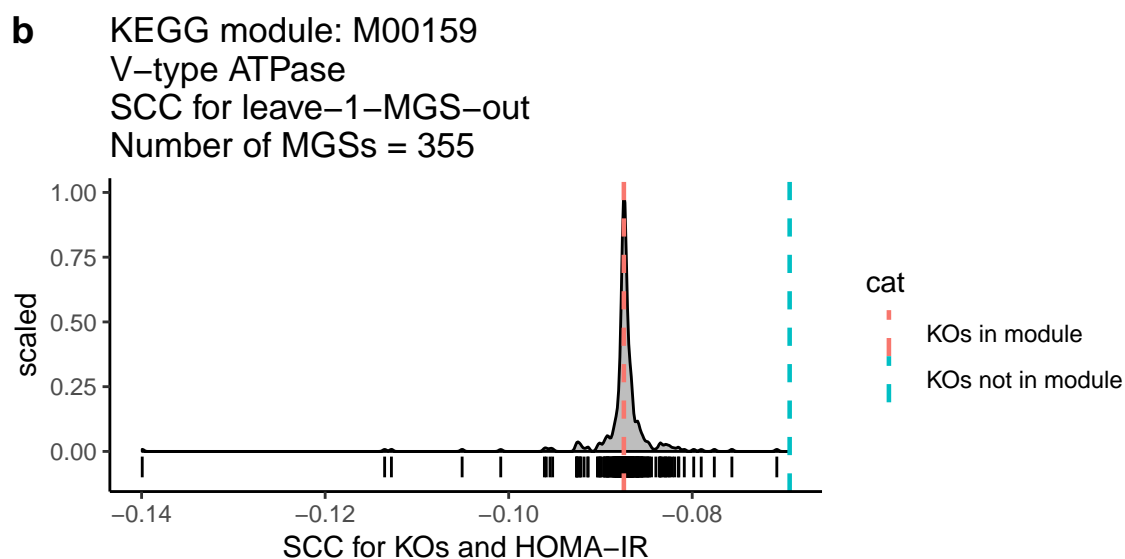
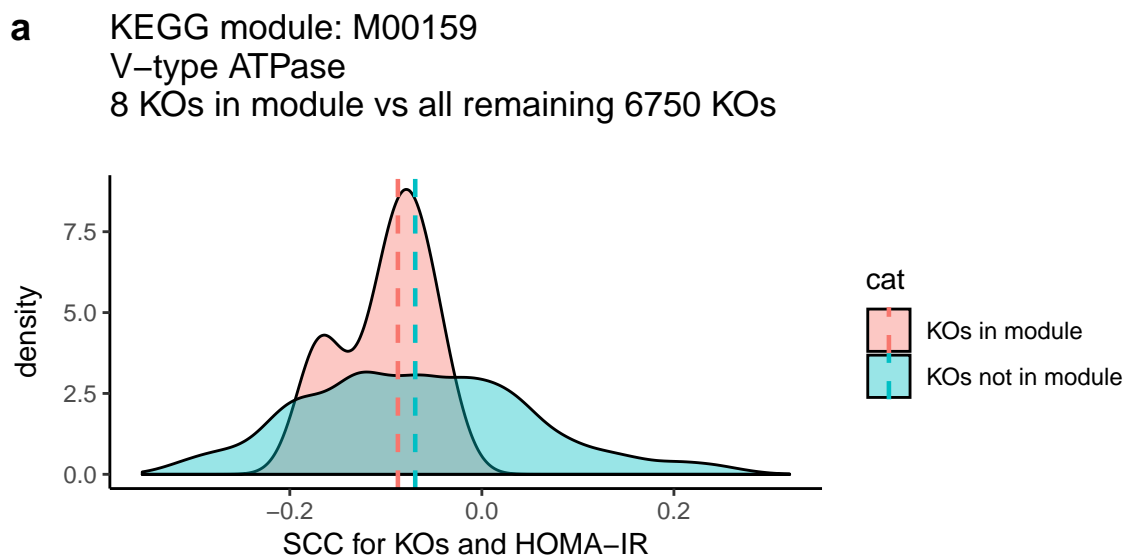


**c** KEGG module: M00048  
Inosine monophosphate biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 688

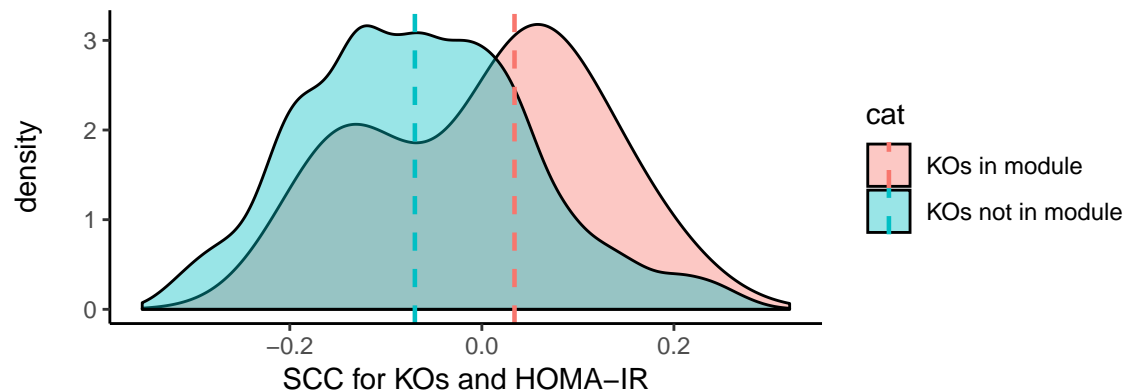




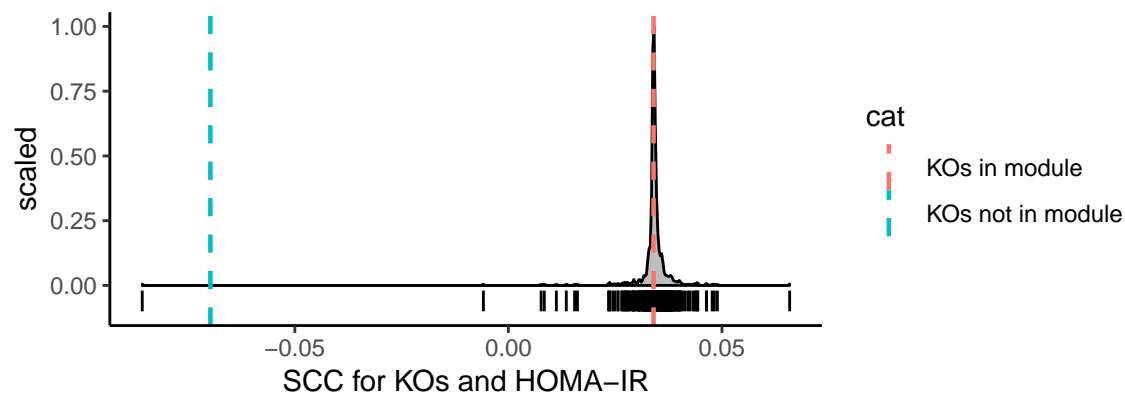




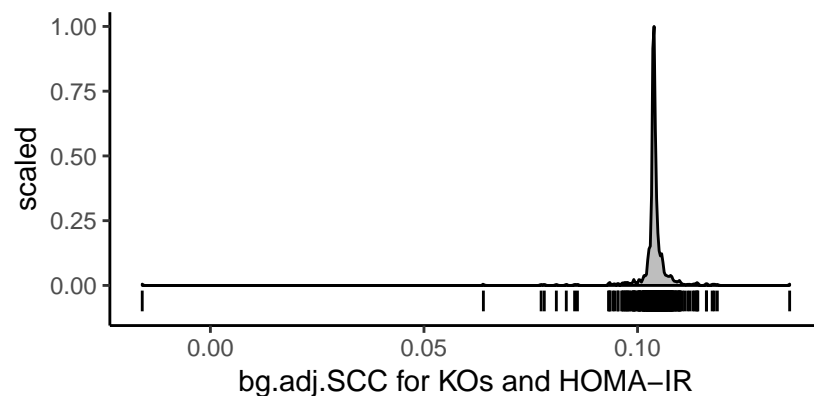
**a** KEGG module: M00051  
Uridine monophosphate biosynthesis  
14 KOs in module vs all remaining 6744 KOs



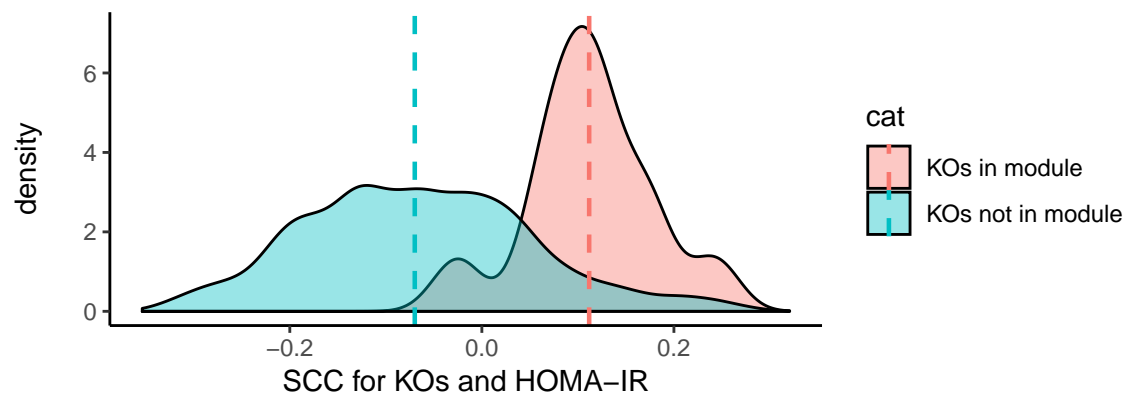
**b** KEGG module: M00051  
Uridine monophosphate biosynthesis  
SCC for leave-1-MGS-out  
Number of MGSs = 651



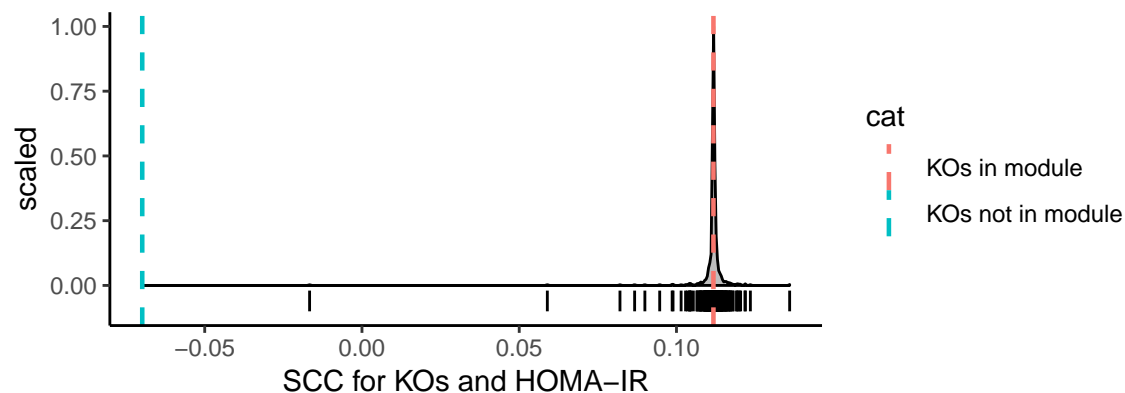
**c** KEGG module: M00051  
Uridine monophosphate biosynthesis  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 651



**a** KEGG module: bcaa\_biosyn  
NA  
13 KOs in module vs all remaining 6745 KOs



**b** KEGG module: bcaa\_biosyn  
NA  
SCC for leave-1-MGS-out  
Number of MGSs = 646



**c** KEGG module: bcaa\_biosyn  
NA  
bg.adj.SCC for leave-1-MGS-out  
Number of MGSs = 646

