

**Table S1** Differential metabolites in human lung tissues

Metabolites	Regulation
1-Methylhistidine	Up
Gamma-Aminobutyric acid	Up
Glycyl-L-leucine	Up
2-Methylbutyrylcarnitine	Up
D-Gluconolactone	Up
Valerylcarnitine	Up
Isovalerylcarnitine	Up
D-Fructose	Up
Guanidoacetic acid	Up
Hydroxyphenyllactic acid	Up
Glutamyalanine	Up
4-Hydroxyproline	Up
Hippuric acid	Up
Homovanillic acid	Up
Glyceric acid	Up
Ribonic acid	Up
L-Malic acid	Up
D-Xylose	Up
Fumaric acid	Up
Propionylcarnitine	Up
L-Aspartic acid	Up
Glycine	Up
L-Leucine	Down
L-Isoleucine	Down
L-Glutamic acid	Down
L-Norleucine	Down
Lithocholic acid	Down
m-Aminobenzoic acid	Down
Tauro-alpha-muricholic acid	Down
L-Thyronine	Down
Linoleylcarnitine	Down
Methylsuccinic acid	Down
2-Hydroxy-2-methylbutyric acid	Down

**Table S2** Differential metabolites in mouse lung tissues

Metabolites	Regulation
Ketoleucine	Up
Citraconic acid	Up
3-Methyl-2-oxovaleric acid	Up
Itaconic acid	Up
Gallic acid	Up
Ornithine	Up
L-Histidine	Up
Adipoylcarnitine	Up
L-Tryptophan	Up
Valeric acid	Up
L-Cystine	Up
L-Methionine	Up
N-Acetyl-L-methionine	Up
L-Arginine	Up
L-Tyrosine	Up
2-Methyl-4-pentenoic acid	Up
Sarcosine	Up
Malonylcarnitine	Up
5-Aminolevulinic acid	Up
L-Phenylalanine	Up
Oxalic acid	Up
D-Gluconolactone	Up
L-Lysine	Up
3-4-Dihydroxyhydrocinnamic acid	Up
L-Norleucine	Up
Indoleacrylic acid	Up
Glycolic acid	Up
L-Serine	Up
Glyceric acid	Up
Quinic acid	Up
L-Isoleucine	Up
3-3-Hydroxyphenyl-3-hydroxypropanoic acid	Up
L-Alanine	Up
L-Leucine	Up
L-threonine	Up

**Table S2** (*continued*)**Table S2** (*continued*)

Metabolites	Regulation
D-Glucose	Down
Carnosine	Down
Decanoic acid	Down
L-Lactic acid	Down
Palmitelaidic acid	Down
Isolithocholic acid	Down
Palmitic acid	Down
Palmitoleic acid	Down
3-Nitrotyrosine	Down
Butyric acid	Down
Adrenic acid	Down
Hydroxypropionic acid	Down
Petroselinic acid	Down
Oleic acid	Down
Stearic acid	Down
8-11-14-Eicosatrienoic acid	Down
10-Trans-Heptadecenoic acid	Down
10Z-Heptadecenoic acid	Down
Linoleic acid	Down
Linoelaidic acid	Down
Anserine	Down
Alpha-Linolenic acid	Down
Gamma-Linolenic acid	Down
2-Hydroxy-3-methylbutyric acid	Down
Nonadeca-10Z-enoic acid	Down
Trimethylamine N-oxide	Down
10-13_Nonadecadienoic acid	Down
3-Indolepropionic acid	Down