



**S3 Figure.** Comparison of adjusted p-values (false discovery rate; FDR) from linear regression analyses with osteocalcin concentration as exposure and plasma (left panel) or urine metabolites as outcome using two different populations. The x-axis displays results from the whole study population (all) whereas the y-axis contains results from a subpopulation after excluding participants with low 25-hydroxy vitamin D levels ( $<10 \mu\text{g/l}$ ). Metabolites colored in red were significantly associated in both populations whereas yellow ones only in one of them.