

Figure S1. In vitro IL-8 production in Caco-2 cells exposed to LPS. ^a Significant difference ($p < 0.05$) to the CTL0 group; ^b Significant difference ($p < 0.05$) to the CTL group.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=6/group).

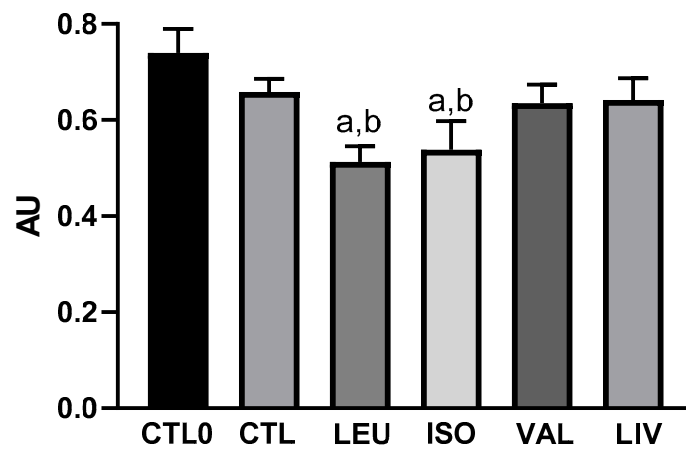


Figure S2. Phosphorylation of the JNK in Caco-2 cells exposed to LPS. ^a Significant difference ($p < 0.05$) to the CTL0 group; ^b Significant difference ($p < 0.05$) to the CTL group.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=5/group). AU, arbitrary units; JNK, c-Jun N-terminal Kinase.

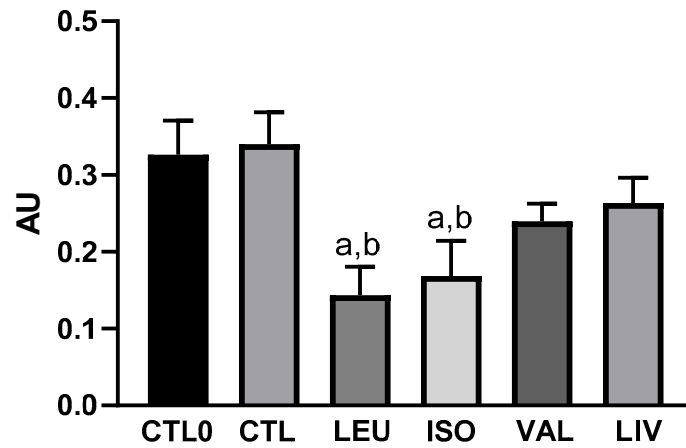


Figure S3. Phosphorylation of the NFκB in Caco-2 cells exposed to LPS. ^a Significant difference ($p < 0.05$) to the CTL0 group; ^b Significant difference ($p < 0.05$) to the CTL group.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=5/group). AU, arbitrary units; NFκB, nuclear factor kappa B p65 subunit.

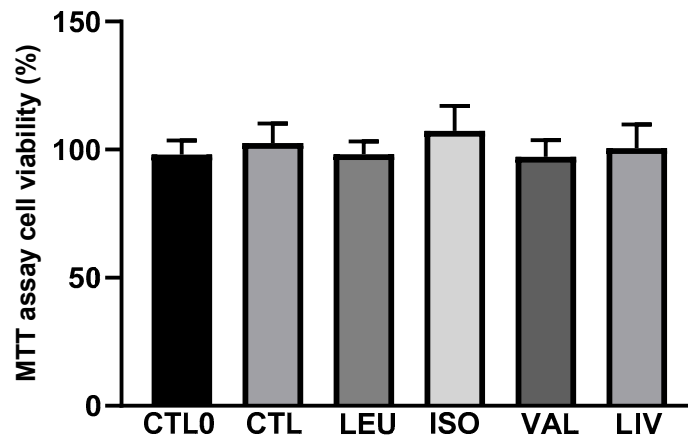


Figure S4. Cell viability in Caco-2 cells exposed to LPS.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=8/group).

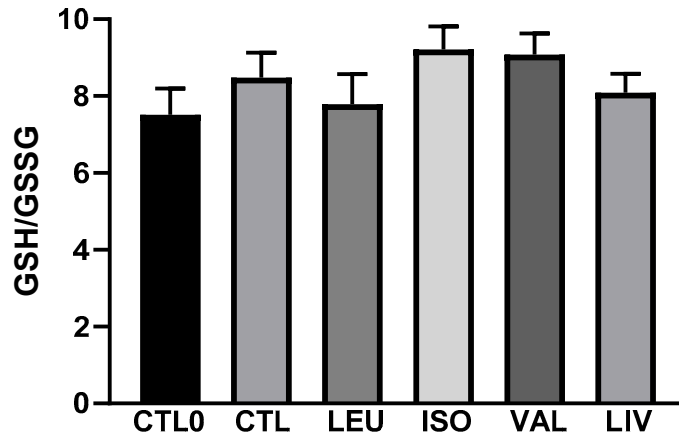


Figure S5. Intracellular reduced glutathione (GSH) to oxidized glutathione (GSSG) ratio in Caco-2 cells exposed to LPS.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean ± SEM (N=6/group).

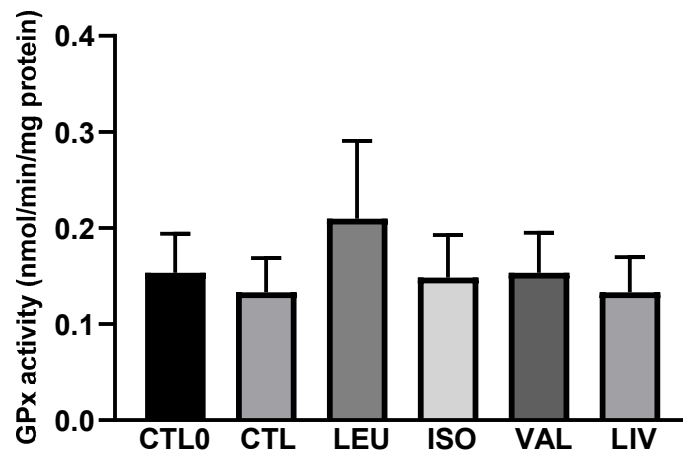


Figure S6. Activity of glutathione peroxidase (GPx) enzyme in Caco-2 cells exposed to LPS.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean ± SEM (N=6/group).

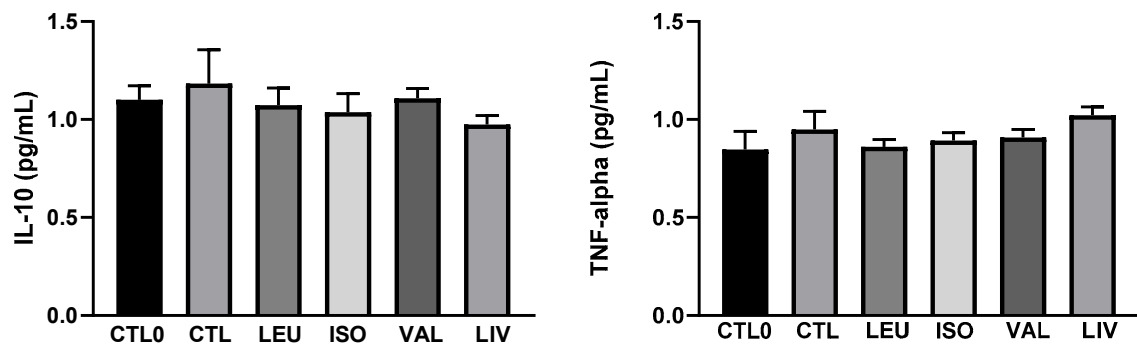


Figure S7. In vitro IL-10 and TNF-alpha production in Caco-2 cells exposed to LPS.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=6/group).

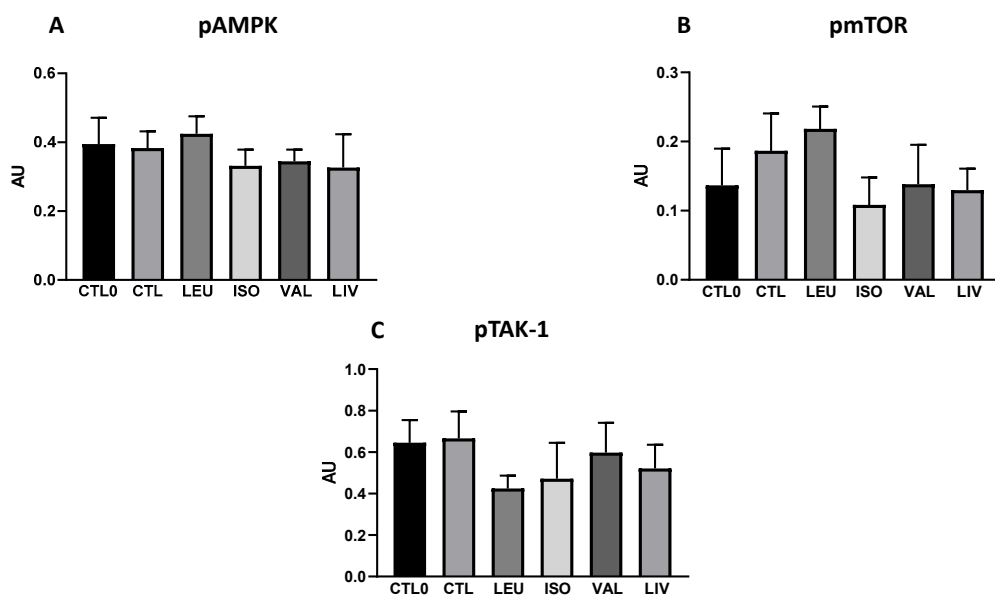


Figure S8. Phosphorylation of the AMPK, mTOR, and TAK-1 in Caco-2 cells exposed to LPS.

(A) phosphorylated AMPK; (B) phosphorylated mTOR; and (C) phosphorylated TAK-1.

CTL0: negative control without BCAA; CTL: 0.8 mmol/L of each BCAA; LEU: 2 mmol/L of leucine; ISO: 2 mmol/L of isoleucine; VAL: 2 mmol/L of valine; LIV: 2 mmol/L of leucine, 2 mmol/L of isoleucine and 2 mmol/L of valine. Data are presented as mean \pm SEM (N=5/group). AU, arbitrary units; AMPK, AMP-activated protein kinase; mTOR, mechanistic target of rapamycin; TAK1, transforming growth factor-beta-activated kinase 1.