[0006a] In one aspect, there is provided a composition formulated for oral consumption, comprising:

(a) at least 500 mg of leucine and/or at least 200 mg of one or more leucine metabolites, wherein the one or more leucine metabolites are selected from the group consisting of keto-isocaproic acid (KIC), alpha-hydroxy-isocaproic acid, and hydroxymethylbutyrate (HMB); and

(b) at least 10 mg of a polyphenol; and

(c) an anti-diabetic agent,

wherein the composition comprises less than 1% of the individual amino acids alanine, glutamic acid, glycine, and proline.

[0006b] In one aspect, there is provided the use of a composition as defined above in the manufacture of a medicament for reducing obesity in a subject.

[0006c] In one aspect, there is provided the use of a composition as defined above in the manufacture of a medicament for treating diabetes in a subject.