CLAIMS:

1. A stable acidic formulation comprising β-hydroxy-β-methylbutyrate (HMB) in the free acid form, vitamin D and at least one stabilizing excipient, wherein vitamin D is stabilized against degradation over time.

2. The formulation of claim 1, wherein the stabilizing excipient is selected from the list consisting of EDTA, butylated hydroxytoluene (BHT), carnitine, rosemary extract, carnosolic acid, and sorbic acid.

3. The formulation of claim 1, wherein the stabilizing excipient is selected from the list consisting of EDTA and butylated hydroxytoluene (BHT).

4. The formulation of claim 1, wherein the formulation is contained within a delivery form selected from the list consisting of a capsule, a softgel, a liquid, and a foodstuff.

5. A method of stabilizing vitamin D in an acidic formulation, comprising the step of including at least one stabilization excipient in a formulation containing vitamin D and β-hydroxy-β-methylbutyrate (HMB) to result in the stabilization of the vitamin D against degradation over time.

6. The method of claim 5, wherein the HMB is the free acid form.

7. The method of claim 5, wherein the stabilization excipient is selected from the list consisting of EDTA, butylated hydroxytoluene (BHT), carnitine, rosemary extract, carnosolic acid, and sorbic acid.

8. A method of minimizing degradation of vitamin D in an acidic formulation containing β-hydroxy-β-methylbutyrate (HMB) and vitamin D comprising the step of including at least one stabilization excipient in said formulation, wherein the stabilization excipient protects the vitamin D from degradation.

9. The method of claim 8 wherein the HMB is the free acid form.

10. The method of claim 8, wherein the stabilization excipient is selected from the list consisting of EDTA, butylated hydroxytoluene (BHT), carnitine, rosemary extract, carnosolic acid, and sorbic acid.

11. The method of claim 9, wherein the formulation is contained within a delivery form selected from the list consisting of a capsule and a softgel.

12. The method of claim 8, wherein the vitamin D degrades in an amount that is less than around 10%.

13. The method of claim 12, wherein the degradation of vitamin D is less than around 10% at thirty days.