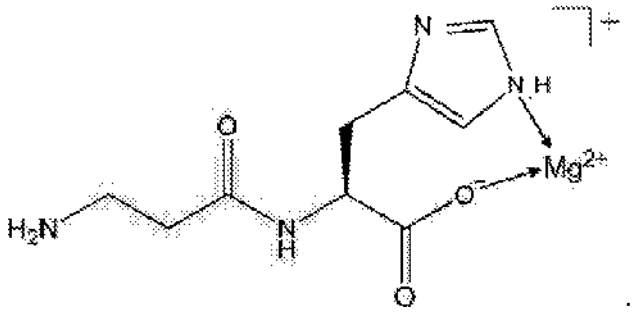
CLAIMS

1. A topical composition comprising a physiologically active amount of a carnosine-magnesium complex, wherein the physiologically active amount of the carnosine-magnesium complex represents a quantity of the carnosine-magnesium complex of from 0.5 to 5 wt% of the topical composition and wherein the carnosine-magnesium complex has the following formula:



2. The topical composition of claim 1, wherein the topical composition is in the form of a gel, a cream, a solution, an ointment, a paste, a lotion, a patch, a spray or a foam.

3. The topical composition of any one of claims 1 to 2 further comprising a skin absorbing enhancer component chosen from the group consisting of 1,2-pentylene glycol, ethoxydiglycol (Transcutol), propylene glycol, ethyl, propyl, isopropyl, myristyl, lauryl and octyl alcohols, octyl salicylate and isopropyl miristate.

4. The topical composition of any one of claims 1 to 3 further comprising a lubricant, a carrier, a thickening agent, a preservative, a surfactant, water, a moisturizing agent and an emollient agent.

5. The topical composition of claim 4, wherein the lubricant is selected from the group comprising silicon oils, propyl-eptyl-caprylate, dicaprylil-carbonate, dicaprylil ether, ethylesylcocoate, isopropylmiristate, exyllaurate, dibuthyladipate and isopropyladipate, and mixtures thereof; the carrier is selected from the group comprising silicon dioxide, titanium dioxide, zinc oxide, acrylate copolymers and mixtures thereof; the thickening agent is selected from the group comprising sclerotium gum, xantan gum, guar gum, pectine, agar agar, ethoxy ethyl cellulose, hydroxyl ethyl cellulose, hydroxyl propyl cellulose, hydroxyl propylmethyl cellulose, hyaluronic acids, and mixtures thereof; the preservative is selected from the group comprising phenoxyethanol, ethylhexylglycerine, benzoic acid, benzoic salts, benzoic esters, sorbic acid, sorbic salts, dehydroacetic acid, dehydroacetic salts, and mixtures thereof; and the surfactant is selected from the group comprising quaternary ammonium salts, sodium laurylsulphate, alkylpolyglucoside and cocamidopropylbetaine.

6. The topical composition of any one of claims 1 to 5 further comprising a warming agent selected from the group comprising methyl nicotinate, ethyl nicotinate, hexyl nicotinate, benzyl nicotinate, tocopheryl nicotinate, capsicum annuum oleoresin, cinnamomum camphora bark oil, methyl salicylate, and mixtures thereof.

7. The topical composition of claim 6, wherein if a nicotinate is present in the composition, it is present in 0.05 - 0.1 wt% of the composition; if capsicum annuum oleoresin is present in the composition, it is present in 0.5-1 wt% of the composition; if cinnamomum camphora bark oil is present in the composition, it is present in 1-10 wt% of the composition; and if methyl salicylate is present in the composition, it is present in 1-10 wt% of the composition.

8. The use of a topical composition according to any one of claims 1 to 7 for increasing the concentration of carnosine in the skeletal muscle tissue.

9. The use of a topical composition according to any one of claims 1 to 7 for improving an athlete's physical performance wherein the athlete's physical performance is effort duration, speed and muscles recovery.

10. A method of producing the topical composition of claim 1, wherein the carnosine-magnesium complex is produced by a method comprising the step of adding a stoichiometric amount of magnesium sulphate or magnesium chloride or magnesium citrate or magnesium lactate to an aqueous solution of carnosine.