

CLAIMS

1. Composition for use in the treatment of a central nervous system injury in a subject, the composition comprising an active agent, said active agent
5 containing the amino acids leucine, isoleucine, valine, threonine, lysine and the carboxylic acids citric acid, succinic acid, malic acid.

2. Composition for use according to claim 1, wherein the weight ratio between the overall amount of citric acid, malic acid, succinic acid and the overall
10 amount of leucine, isoleucine, valine, lysine, threonine is comprised between 0.05 and 0.3, preferably between 0.1 and 0.25.

3. Composition for use according to claim 1 or claim 2, wherein the weight ratio between the overall amount of citric acid, malic acid, succinic acid
15 and the overall amount of leucine, isoleucine, valine is comprised between 0.1 and 0.4, preferably between 0.15 and 0.35.

4. Composition for use according to any one of the preceding claims, wherein the weight ratio between citric acid and the sum of malic acid and
20 succinic acid is comprised between 1.0 and 4.0, preferably between 1.5 and 2.5.

5. Composition for use according to any one of the preceding claims, wherein the citric acid:malic acid:succinic acid weight ratio is comprised between
10:1:1 and 2:1.5:1.5, preferably between 7:1:1 and 1.5:1:1, more preferably
25 between 5:1:1 and 3:1:1.

6. Composition for use according to any one of the preceding claims, wherein said active agent further comprises at least one amino acid selected in the
group consisting of histidine, phenylalanine, methionine, tryptophan, tyrosine,
30 cysteine.

7. Composition for use according to any one of the preceding claims, wherein said active agent further comprises histidine, phenylalanine, methionine,
tryptophan, cysteine and optionally tyrosine.
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8. Composition for use according to any one of the preceding claims, wherein the ratio between the overall molar amount of citric acid, malic acid, succinic acid and the overall molar amount of methionine, phenylalanine, histidine and tryptophan is higher than 1.35.

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9. Composition for use according to any one of the preceding claims, wherein the ratio between the overall molar amount of the three carboxylic acids citric acid, succinic acid, malic acid and the overall molar amount of lysine and threonine is comprised between 0.10 and 0.70, preferably between 0.15 and 0.55.

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10. Composition for use according to any one of the preceding claims, wherein the weight or molar amount of citric acid is higher than the overall weight or molar amount of both malic acid and succinic acid.

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11. Composition for use according to any one of the preceding claims, wherein the weight ratio between leucine and citric acid is comprised between 5 and 1, preferably between 2.50 and 3.50.

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12. Composition for use according to any one of the preceding claims, wherein the composition further comprises one or more vitamins, preferably selected in the group of vitamins B, more preferably vitamin B1 and/or vitamin B6.

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13. Composition for use according to any one of claims 1 to 12, wherein the central nervous system injury is selected in the group consisting of cerebral injury, spinal cord injury, peripheral nerve injury, a demyelinating disease.

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14. Composition for use according to claim 13, wherein the spinal cord injury comprises contusive spinal cord injury.