**Description**

**A COMPOSITION PREPARED FOR THE TREATMENT OF ALS**

**Technical Field**

The invention relates to a composition formed for the treatment of ALS.

**State of the Art**

Amyotrophic lateral sclerosis (ALS), also referred to as motor neuron disease, is a disease originating from the loss of the motor neurons in the region called the spinal cord and brain stem in the central nervous system.

The disease is caused by the loss of motor neurons in the region called the spinal cord and the brain stem in the central nervous system. The loss of these cells leads to the muscle weakness and atrophy. Moreover, the first neuron of the early or late motion becomes sick. The mental functions and memory are not impaired.

Weakness in the muscles may start in the hands or legs, mouth-pharynx or tongue and advances to spread in a short time. This spread may also affect the muscles in the "bulber" zone, thus it may cause difficulty in speech and swallowing. In the advanced stages, it may also cause respiratory failure. It usually occurs in the adult ages (40-50) and is slightly more frequent in the men than women. The incidence is around 1-1,5 in 100.000. It may also develop in the younger and older ages and it is generally observed to occur in the weak individuals.

The treatment methods according to the state of the art are the immunosuppressive treatments carried out with the injection of the insulin-like growth factor type-1 and the derivatives thereof, corticosteroid and the derivatives thereof and the dietary modifications.

According to the state of the art, the invention no. WO 1997/015304 with classification "A61K 31/44" entitled "Use of 1-(2-naphth-2-ylethyl)-4-(3-trifluoromethylphenyl)-1,2,3,6-tetrahydropyridine for preparing drugs for treating amyotrophic lateral sclerosis" relates to the use of 1-(2-naphth-2-ylethyl)-4-(3-trifluoromethylphenyl)-1,2,3,6-tetrahydropyridine, or pharmaceutically acceptable acid addition salts thereof, for preparing drugs for treating amyotrophic lateral sclerosis (ALS).

Further, the invention no. EP1483247B1 entitled "Aryl substituted pyrimidines and the use thereof" relates to a method of treating disorders responsive to the blockade of sodium ion channels using novel aryl-substituted pyrimidine compounds of Formula (I) or a pharmaceutically acceptable salt, or solvate thereof, wherein A, R1, R2, R3 and R4 are defined in the specification. The invention is also directed to the use of compounds of Formula I for the treatment of neuronal damage following global and focal ischemia, for the treatment or prevention of neurodegenerative conditions such as amyotrophic lateral sclerosis (ALS), and for the treatment, prevention or amelioration of both acute or chronic pain, as antitinnitus agents, as anticonvulsants, and as antimanic depressants, as local anesthetics, as antiarrhythmics and for the treatment or prevention of diabetic neuropathy.

Further, the invention no. EP1755647B1 entitled "Treatment of amyotrophic lateral sclerosis" relates to VEGF165 for use in the treatment of motor neuron diseases wherein said VEGF165 is continuously administered for up to at least 4 weeks at the place of onset at a close range between 0.01 µg/kg/day and 0.6 µg/kg/day. More particularly the invention relates to the treatment of amyotrophic lateral sclerosis (ALS).

As a result, the presence of the need for a composition for treating ALS and the inadequacy of the existing solutions have made it necessary to perform an improvement in the relevant art.

**Object of the Invention**

In order to eliminate the disadvantages of the state of the art, an object of the invention is to provide a significant ability to suppress the pro-inflammatory cytokines like TNF-a and nf-kappaB.

Another object of the invention is to increase the nerve growth factor expression.

Another object of the invention is to support the BDNF release.

Another object of the invention is to support the increase in the partial follistatin expression and the formation of the muscle mass.

In order to achieve the aforesaid advantages, the invention is a composition for the treatment of ALS, said composition being obtained by the components selected from the group comprising 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one, 3,7-(4-hydroxyphenyl)-2-propen-1-one, 6-oxo-diosgenin-ethyl-ester, 4-hydroxydioscin that are used individually or in combinations.

The structural and characteristic features and all the advantages of the invention will become more clearly understood from the detailed description provided below and therefore, the evaluation must be made taking this detailed description into consideration.

**Detailed Description of the Invention**

The invention is a composition formed for the treatment of ALS. The composition according to the invention suppress the pro-inflammatory cytokines like TNF-a and nf-kappaB, increases the nerve growth factor expression, supports the BDNF release and supports the increase in the partial follistatin expression and the formation of the muscle mass.

The composition according to the invention contains 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one, 3,7-(4-hydroxyphenyl)-2-propen-1-one, 6-oxo-diosgenin-ethyl-ester, 4-hydroxydioscin.

Said formulation is obtained by a mixture of the aforesaid components according to the following ratios by weight:

7-13% 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one,

23-41% 3,7-(4-hydroxyphenyl)-2-propen-1-one,

50-22% 6-oxo-diosgenin-ethyl-ester,

20-24% 4-hydroxydioscin

The composition is obtained from the aforesaid components selected from the aforesaid group and used according to the mentioned weight ratio ranges individually or in combinations.

Said invention also encompasses the use of said composition for treating ALS and the manufacture thereof for this purpose.

**CLAIMS**

1. A composition for the treatment of ALS, said composition being obtained by the components selected from the group comprising 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one, 3,7-(4-hydroxyphenyl)-2-propen-1-one, 6-oxo-diosgenin-ethyl-ester, 4-hydroxydioscin that are used individually or in combinations.
2. A composition according to Claim 1 characterized in that it comprises 7-13% by weight 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one.
3. A composition according to Claim 1 characterized in that it comprises 23-41% by weight 3,7-(4-hydroxyphenyl)-2-propen-1-one.
4. A composition according to Claim 1 characterized in that it comprises 50-22% by weight 6-oxo-diosgenin-ethyl-ester.
5. A composition according to Claim 1 characterized in that it comprises 20-24% by weight 4-hydroxydioscin.
6. Use of the components according to Claims 1 to 5 obtained individually or in combinations from the group consisting of 3,5-triethyl-2,6-octadienyl]-2,4-trimethoxycafeoil]-6-(7-dihydroxyphenyl)-3-propen-4-one, 3,7-(4-hydroxyphenyl)-2-propen-1-one, 6-oxo-diosgenin-ethyl-ester, 4-hydroxydioscin **for the manufacture of a composition for treating ALS (amyotrophic lateral sclerosis).**

**ABSTRACT**

**A COMPOSITION PREPARED FOR THE TREATMENT OF ALS**

The invention relates to a composition formed for the treatment of ALS (amyotrophic lateral sclerosis).

No figure.