

ND PHARMA & BIOTECH

## NEUROSCIENCE DIVISION PRODUCT LIST





NEUROSCIENCE DIVISION  
CATALOG 2012  
PRODUCT LIST

*PRODUCT LIST*

1. *Levodopa*
2. *Gamma amino butyric acid(GABA)*
3. *Melatonin 99%,*
4. *Yohimbine hydrochloride*
5. *Natural Reishi P.E, 20%-50%*
6. *Pterostilbene ,98%*
7. *Sulbutiamine*
8. *5-HTP (Griffonia Simplicifolia Extract)*
9. *Beta Alanine*
10. *N Acetyl Tyrosine*
11. *Alpha Lipoic Acid*
12. *Acetyl L Carnitine*
13. *L-glutamine*
14. *L-Theanine*
15. *L-alpha-Glycerolphosphoryl choline (Alpha GPC)*
16. *CDP-choline (choline Bitartrate)*
17. *Pyritinol*
18. *Pyridoxal 5-phosphate monohydrate*
19. *Picamilon*
20. *Phenibut*
21. *L-Theanine*
22. *Nervonic Acid*
23. *Centrophenoxine*
24. *Idebenone*
25. *Galantamine Hydrobromide*
26. *Calcium Glycerophosphate*
27. *L-α-Glycerolphosphorylcholine hydrate*
28. *Cytidine Triphosphate Disodium(CTP)*
29. *Polycytidylic Acid*
30. *S-Adenosyl-L-methionine disulfate tosylate*
31. *SAMe (S-Adenosyl-L-methionine)*
32. *Citicoline Sodium*
33. *Adenosine Triphosphate Disodium*
34. *Aniracetam*
35. *Nefiracetam*
36. *Oxiracetam*
37. *Pramiracetam*
38. *Piracetam*
39. *5-HTP, 5-Hydroxytryptophan,Griffonia Seed Extract*



**© ND Pharma & Biotech NeuroSciences Division.**

The present brochure/catalogue does not constitute an offer neither an invitation to treat. For every transaction or interest in any of the products please be advised by our Commercial Department. No price or quotation will be send to any request unless properly identified as Business Company, Commercial Company or Scientific Corporation. Please ask for the price and payment policy before any order placement.

Additional information about products, please contact with the Scientific Department or write us an e-mail to:

[ndpharmabiotech@europe.com](mailto:ndpharmabiotech@europe.com)

[ndpharmabiotech@usa.com](mailto:ndpharmabiotech@usa.com)

[ndpharmabiotech@asia.com](mailto:ndpharmabiotech@asia.com)

## **PRODUCT CATALOG**

## 1. LEVODOPA

CAS: 59-92-7

Presentation: 25 Kg/ Card Drum

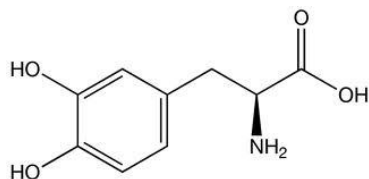
Molecular Formula: C<sub>9</sub>H<sub>11</sub>NO<sub>4</sub>

MW: 197.1879

Appearance: White poder

Function:

Levodopa dopamine and left for medicine are tremor paralysis pill. This product through the blood brain barrier into the brain function. Applicable to primary tremor paralysis and the medicine of the tremor paralysis syndrome. This product after taking nausea, vomiting, loss of appetite, insomnia, illusion.



## 2. GAMMA AMINO BUTYRIC ACID ( GABA)

CAS#:56-12-2

MF:C<sub>4</sub>H<sub>9</sub>NO<sub>2</sub>

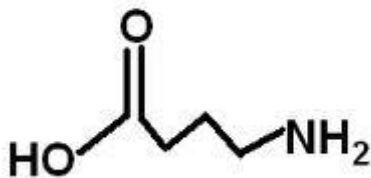
MW:103.1198

Appearance: White crystal powder; have the smelly, taste the pain

Assay: 99%

Function

- 1.Calm & Relax The Mind and Body
- 2.Improve Sleep (Promotes R.E.M. Sleep)
- 3.Stabilizes Blood Pressure
- 4.Improve Brain Functioning & Mental Clarity
- 5.Improve Neurotransmitter Functioning
- 6.Increase Human Growth Hormone (HGH)
- 7.Reduce Pain From Chronic Conditions (Arthritis & Lower Back Pain)
- 8.Remove Wrinkle instantly



### 3. MELATONIN 99%

Natural Pterostilbene, 98%

CAS#:73-31-4

MF: C<sub>13</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub>

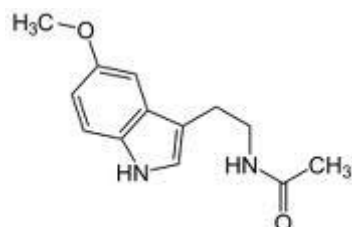
MW: 232.2783

Appearance: White crystal or off White crystal

Assay:98%

#### Function

1. Helps regulate other hormones and maintains the body's circadian rhythm.
2. Melatonin also helps control the timing
3. Melatonin helps determine
4. melatonin has strong antioxidant effects.
5. release of female reproductive hormones.





#### 4. YOHIMBINE HYDROCHLORIDE

CAS#:65-19-0

MF:C<sub>21</sub>H<sub>27</sub>N<sub>2</sub>O<sub>3</sub>

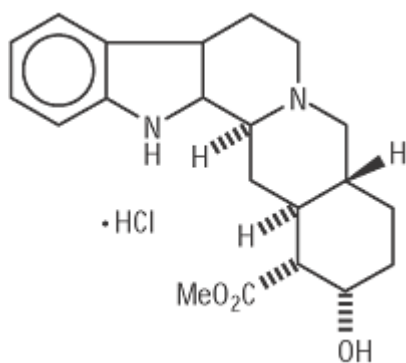
MW:355.4501

Assay:98%

Appearance: White fine powder

##### Function

- 1.It can increase muscle tension, has noninvasive effect on suppression of urine
- 2.Accelerate body energy metabolism
- 3.Increase energy supply



## 5. NATURAL REISHI P.E, 20%-50%

Natural Reishi P.E, 20%-50%

Specification: RSH-1 Polysaccharide 10% UV

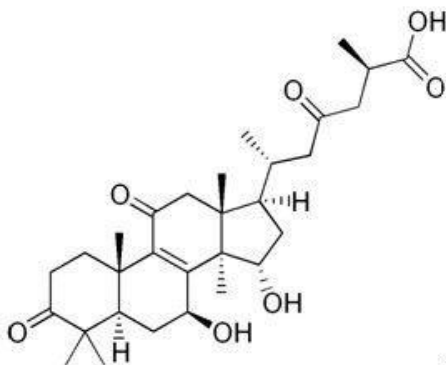
RSH-2 Polysaccharide 25% UV

RSH-3 Polysaccharide 20% UV/Triterpene 4% UV

Appearance: Brown Powder

Function:

- 1) Reishi Extract is reputed as the elixir of life since ancient times, and is a rare and traditional Chinese medicine in China.
- 2) Reishi Extract is used for treatment of general fatigue and weakness, asthma, insomnia, and cough.
- 3) Reishi Extract can also preserve the vigour, strengthen the physique, have a rosy complexion, antisenile, prolong life, curing the consumptive disease and the haemorrhoids.



## 6. PTEROSTILBENE, 98%

Pterostilbene, 98%

CAS: 537-42-8

MF: 537-42-8

MW: C<sub>16</sub>H<sub>16</sub>O<sub>3</sub>

Appearance: Off white crystal powder

Assay: 98%

Function:

Pterostilbene is a stilbenoid chemically related to resveratrol. It is thought to be the key compound found predominantly in blueberries (as well as grapes) that exhibit anti-cancer, anti-hypercholesterolemia, anti-hypertriglyceridemia properties, as well as fight off and reverse cognitive decline. It is believed that the compound also has anti-diabetic properties, but so far very little has been studied on this issue. Additionally, it is also touted as a potent anti-fungal.

In 2002, Rimando and UIC collaborators found in experiments using rat mammary glands that pterostilbene possessed potent anti-oxidant characteristics and possible cancer-fighting properties at concentrations similar to resveratrol.

## 7. SULBUTIAMINE

Sulbutiamine

CAS#:3286-46-2

MF:C32H46N8O6S2

MW:702.8876

Appearance:White to off-white crystalline powder

Assay:≥98%

Function

1. Sulbutiamine is a novel fat soluble derivatives of thiamine, which has two different properties in comparison with vitamin B1 as
2. Sulbutiamine is a novel fat soluble derivatives of thiamine, which has two different properties in comparison with vitamin B1 as a result of structural modification of free thiamine.
3. Sulbutiamine can cross the blood brain barrier more easily than vitamin B1 because of its lipophilic. It can be rapidly absorbed and the concentration is maximum in 1-2 hours after oral administration. The molecule rapidly distribute in the whole body and is eliminated with a biological half-life of 5 hours.
4. Sulbutiamine is also used to increase mental focus, provide a clear mind and promote general vigilance. It has beneficial effects on working and episodic memory by improving memory formation and has been described as a centrally acting cholinergic agent.

## **8. 5- HTP GRIFFONIA SIMPLICIFOLIA EXTRACT**

5-HTP (Griffonia Simplicifolia Extract)

CAS #:114-03-4

MF:C11H12N2O3

MW:220.2246

Appearance:Off white Crystalline powder

Assay:99%

[ Function]

- 1.Anti-hypochondria
- 2.Improve sleep
3. Weight losing
4. Relieve prior menses syndrome (PMS)
5. abstain from addiction
- 6.Cure hemicranias

## 9. BETA- ALANINE

CAS#: 107-95-9

MF:C<sub>3</sub>H<sub>7</sub>NO<sub>2</sub>

MW:89.09

Appearance:White fine powder

Assay:99%

Function:

Mainly used for synthetic pantothenic acid and pantothenic acid calcium, muscle peptide,

palmer meters phosphonate.... Widely used in medicine, feed, food area ect

Increases strength endurance

Increases force output

Increases anaerobic threshold

Increases work capacity

Delays fatigue

May improve body composition

Works synergistically with Creatine

Enhances performance in all athletes regardless of the intensity or duration required by the athletic discipline

## 10. N-ACETYL –TYROSINE

CAS#537-55-3

MF:C11H12NO4

MW:222.2178

Appearance:White crystal or white crystalline powder

Assay:99%

Function:

N-Acetyl-L-tyrosine is used in pharmaceutical intermediates,biochemical study,life sciences,etc..

1.N-Acetyl-L-Tyrosine is a highly bioavailable form of L-tyrosine for the natural precursor treatment of low moods N-acetyl-L-tyrosine can be used in lower doses than L-tyrosine.

2.N-Acetyl-L-Tyrosine is an acetylated derivative of the essential amino acid L-tyrosine. Ordinary L-tyrosine is less stable and insoluble in water, which may result in reduced bioavailability.

3. N-acetyl-L-tyrosine, which is converted in the body to L-tyrosine, is 20 times as soluble in water as L-tyrosine itself. For this reason, it serves as an efficient supplement for raising tyrosine levels in the body, since undissolved substances are not absorbed from the digestive tract.

4. N-acetyl-L-tyrosine enhances the solubility and stability making it a more rapidly absorbed and bioavailable form of the amino acid L-tyrosine which is less prone to urinary excretion

## 11. ALPHA LIPOIC ACID

CAS#:62-46-4

MF:C8H13O2S2

MW:205.3182

Appearance: Yellow crystalline powder, almost tasteless.

Assay:99%

Function:

R-(+)-Lipoic Acid has been called the mitochondrial antioxidant because it is a key component of mitochondrial dehydrogenase complexes, which may help slow the natural aging process in animals. R-lipoic acid may be more effective than other forms of lipoic acid in increasing or maintaining levels of other antioxidants that may decline with age, including CoQ10, vitamins C and E, and glutathione, according to animal research.



## 12. ACETYL L-CARNITINE

CAS#:5080-50-2

MF:C<sub>9</sub>H<sub>18</sub>ClNO<sub>4</sub>

MW:239.6965

Appearance: White crystalline powder

Assay:99%

Function

- 1.Improving memory problems in elderly people.
- 2.Improving memory in people who use alcohol excessively

### 13. L-GLUTAMINE

CAS#:56-85-9

MF:C10H20N4O6

MW:292.289

Appearance: White needle crystal

Assay:99%

#### Function:

L-Glutamine is the most prevalent amino acid in the bloodstream. Glutamine is involved in more metabolic processes than any other amino acid. Glutamine is converted to glucose when more glucose is required by the body as an energy source. Glutamine also plays a part in maintaining proper blood glucose levels and the right pH range. It serves as a source of fuel for cells lining the intestines. Without it, these cells waste away. It is also used by white blood cells and is important for immune function. Glutamine assists in maintaining the proper acid/alkaline balance in the body, and is the basis of the building blocks for the synthesis of RNA and DNA.

#### 14. L-THEANINE

CAS#:3081-61-6

MF:C7H13N2O3

MW:174.2

Appearance: White crystalline powder

Assay:98.0-102.0%

Function:

- 1) diminishing symptoms of PMS,
- 2) improving learning performance,
- 3) heightening mental acuity - neurotransmitter,
- 4) promoting concentration,
- 5) acting antagonistically against the paralysis induced by caffeine,
- 6) supporting the immune system,
- 7) lowering blood pressure,
- 8) increasing formation of the inhibitory neurotransmitter GABA, and
- 9) increasing brain dopamine levels among other positive benefits with no known downside

**15. L-ALPHA GLYCERYLPHOSPHORYLCHOLINE ( ALPHA GPC)**

CAS#:283-77-9

MF:C<sub>8</sub>H<sub>20</sub> N O<sub>6</sub> P

MW:257.22

Appearance: White powder or Clearance liquid

Aaaay:99%

Function

1. Increase human Growth Hormone (hGH)
2. Improve mental focus and cognitive function
3. Improve strength.

**16. CDP - CHOLINE (CHOLINE BITARTARATE ).**

CAS#:33818-15-4

MF:C<sub>14</sub>H<sub>25</sub>N<sub>4</sub>NaO<sub>11</sub>P<sub>2</sub>

MW:510.3058

Appearance: White or off-white powder

Assay:99%

Function: Immune & Anti-Fatigue

- 1.improves Learning ability
- 2.slows the progression of Alzheimer Disease
- 3.increases Blood Circulation and Oxygen utilization within the Brain
- 4.is used mitigate brain damage following a head injury
- 5.is helpful in the treatment of severe Depression.
- 6.improves Memory (especially in cases of Memory impairment)
- 7.is a valuable co-therapy for Parkinson Disease.

## 17. PYRITINOL

CAS#:1098-97-1

MF:C16H20N2O4S2

MW:368.47

Appearance: white crystalline powder

Assay: 99%

### Function

Pyritinol is a pyridoxine class compound. Two pyridoxines are linked together by two sulfur atoms. Pyritinol (or Pyrithioxin) is a nootropic which enhances oxygen and glucose uptake in the brain. It is also an antioxidant which scavenges hydroxyl radicals. But it has no vitamin B6 activity.

### 18. PYRIDOXAL 5-PHOSPHATE MONOHYDRATE

CAS#:41468-25-1

MF: C<sub>8</sub>H<sub>10</sub>NO<sub>6</sub>P.H<sub>2</sub>O

MW: 265.15

Appearance: like white or light yellow powder

Assay:99%

#### Function and uses:

P5P acts as a coenzyme in all transamination reactions, and in some decarboxylation and deamination reactions of amino acids. It is also needed for hemoglobin production as well as for fatty acid and prostaglandin metabolism. In addition, P5P is necessary for neurotransmitter production, specifically for the production of dopamine, noradrenaline, serotonin, GABA and glutamate. P5P is essential to any natural antidepressant program, and helps to relieve premenstrual symptoms, boost immune functions and maintain healthy blood sugar level. It may be protective against some cancers and has anti-convulsant effects. It may be effective with some forms of fertility and helps with skin disorders.

## 19. PICAMILON

CAS#:34562-97-5

MF:C10H11N2NaO3

MW:230.1957

Appearance: white crystalline powder

Assay:99%

Function

Picamilon (also known as nicotinoyl-GABA, Pycamilon, Pikamilon, etc) is a dietary supplement formed by combining niacin with GABA. Picamilon is able to cross the blood-brain barrier and then is hydrolyzed into GABA and niacin. The released GABA in theory would activate GABA receptors potentially producing an anxiolytic response. The second released component, niacin acts as a strong vasodilator, which might be useful for the treatment of migraine headaches.



## 20. PHENIBUT

CAS No.:1078-21-3

MF:C10H14ClNO2

MW:215.6767

Appearance: White crystalline powder

Assay:>99%

Function:

- 1.Antimelancholic (psychotropic drugs)
- 2.Phenibut is a derivative of the naturally occurring inhibitory neurotransmitter GABA.
- 3.Phenibut is used by bodybuilders to reduce fatigue and improve neurological functions.
- 4.Phenibut has been and is still used medically to treat stress, relieve tension, improve sleep, and as a potentiator for other medications.

## 21. NERVONIC ACID

CAS No.:506-37-6

MF:C24H46O2

MW:366.62

Assay:>90%by HPLC

Appearance: White crystalline

Nervonic acid is a monounsaturated omega-9 fatty acid. Nervonic acid has been identified as important in the biosynthesis of nerve cell myelin. It is found in the sphingolipids of white matter in human brain.

Nervonic acid is used in the treatment of disorders involving demyelination, such as adrenoleukodystrophy and multiple sclerosis where there is a decreased level of nervonic acid in sphingolipids.

Nervonic acid is a monounsaturated omega-9 fatty acid. Nervonic acid has been identified as important in the biosynthesis of nerve cell myelin. It is found in the sphingolipids of white matter in human brain.

Nervonic acid is used in the treatment of disorders involving demyelination, such as adrenoleukodystrophy and multiple sclerosis where there is a decreased level of nervonic acid in sphingolipids.

## **22. CENTROPHENOXINE.**

CAS: 3685-84-5

Molecular Formula:  $C_{12}H_{17}Cl_2NO_3$

Molecular weight :294.1743

Quality Standard; Enterprise standard

Assay: 99.0%min

### Function

Centrophenoxine - formerly known as Lucidril increases the brain's use of glucose and improves brain energy levels. It also removes a potassium build up in the brain, heart, lung and skin cells, and is vital for the efficient communication of a cell to transfer potassium and sodium across its membranes. Centrophenoxine has shown an ability to remove the visible signs of excessive potassium build up - age or liver spots

### 23. IDEBENONE

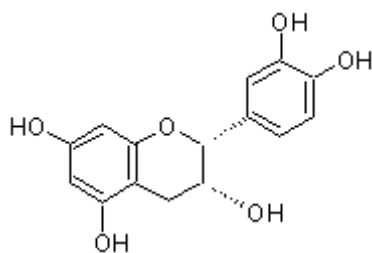
CAS NO.:58186-27-9

MF:C19H30O5

MW:338.4385

Assay:> 98.5%(HPLC)

Appearance: orange yellow or orange crystalline powder



#### Function

1. Idebenone increases nerve growth factor (NGF) in the brain.
2. Idebenone is a powerful antioxidant and positively affects brain chemistry.
3. Idebenone has been shown to promote information transfer across the corpus callosum, the membrane separating the right and left brain hemispheres.
4. Idebenone has been used to treat Alzheimer's and to lessen damage from strokes.
5. Idebenone can increase production of the brain neurotransmitters serotonin, dopamine, adrenalin, and noradrenalin.

Idebenone is closely related to CoQ10 in its structure. It can replace CoQ10 in the process of cellular energy production and, just as CoQ10, idebenone is also an antioxidant. There are some important distinctions though. Idebenone is more water-soluble than CoQ10; its cellular distribution and antioxidant profile are somewhat different too. This makes idebenone superior to CoQ10 in neutralizing some types of free radicals and inferior in fighting other types. Notably, idebenone is more effective than CoQ10 in protecting cells from the free radical damage resulting from reduced blood flow. On the other hand, idebenone appears more conducive than CoQ10 to certain types of noxious free-radical leakage in the cell's

mitochondria. Unfortunately, there have been very few studies directly comparing CoQ10 and idebenone in the treatment of various conditions.

#### **24. GALANTAMINE HYDROBROMIDE (GALANTHAMINE HBR.)**

CAS Number:1953-04-4

Origin:Lycoris radiata (LHer.) Herb.

Molecular Formula:C<sub>17</sub>H<sub>21</sub>NO<sub>3</sub>·HBr

Molecular Weight:368.27

Appearance:White Powder

Assay by HPLC:98% Min

##### **Function**

Galantamine Hydrobromide is an effective, competitive and reversible acetylcholine esterase inhibitor, especially used in curing lightly and moderate Alzheimer's Disease

## **25. CALCIUM GLYCEROPHOSPHATE.**

CAS:27214-00-2

MF:C<sub>6</sub>H<sub>14</sub>Ca<sub>2</sub>O<sub>12</sub>P<sub>2</sub>

MW:420.27

Assay:99%

Appearance: White or light yellow powder

Function:

A kind of nutrition medicine. Used for auxiliary curing. With nutritious function, mostly used in convalescence period,

and generally used in medicine made of two or more ingredients preparations.

## 26. L-ALPHA-GLYCERYLPHOSPHORYLCHOLINE HYDRATE

L- $\alpha$ -Glycerylphosphorylcholine hydrate

CAS#:28319-77-9

MF: C<sub>8</sub>H<sub>21</sub>NO<sub>6</sub>P·nH<sub>2</sub>O

MW:257.20

Assay:98%

Appearance:Clear liquid very viscous

Function:

L-alpha-GPC (L-alpha-glycerophosphorylcholine) is an easily absorbed source of choline, which increases neurotransmitter production for better memory, mood and learning. Neurotransmitters support effective communication and are needed for a healthy brain and cognitive function. Studies have shown L-alpha-GPC is effective in the treatment of Alzheimer's type dementia.

Phosphatidylcholine (PC) and Phosphatidylserine (PS) are the major phospholipids in the body and the brain. PC supports brain function by stimulating production of choline, which in turn forms acetylcholine. PS has been shown to improve age-related memory loss, boosting learning, vocabulary skills and concentration, and even reversing early stages of Alzheimer's disease.

## 27. CTP CYTIDINE TRIPHOSPHATE DISODIUM

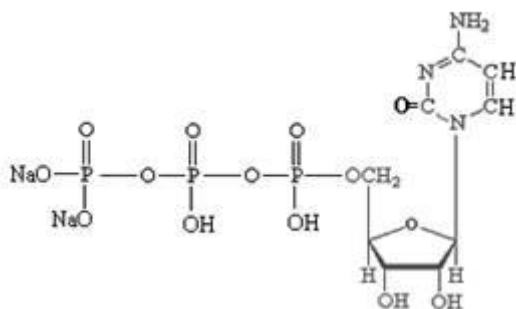
CAS:18423-42-2

MF:C<sub>9</sub>H<sub>14</sub>N<sub>3</sub>Na<sub>2</sub>O<sub>14</sub>P<sub>3</sub>

MW:527.12

Purity:99%

Appearance: white powder



### Function

Made of CMP. it can be used in the therapy of cerebrovascular accident & sequelae; cerebral concussion, trauma coma, dysfunction after craniocerebral operations; neurosis; cerebrovascular angiosclerosis, presenile dementia; peripheral nerve injury; atelencephalia



## 28. POLYCYRIDYLIC ACID

Polycytidylic Acid(PolyC)

CAS No.:24939-03-5

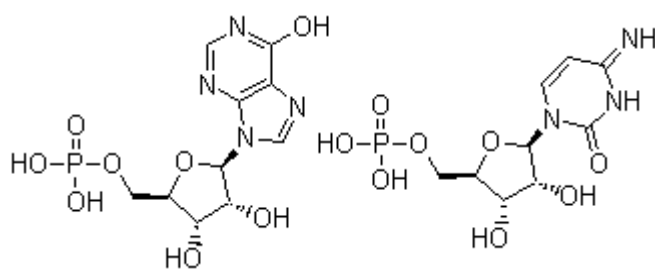
MF:(C<sub>9</sub>H<sub>14</sub>N<sub>3</sub>O<sub>8</sub>P)<sub>n</sub>

Purity:99%

Appearance:White powder

Function:

1. it also can offer good effects to hepatitis B, epidemic hemorrhagic fever, virus flu and flat wart.
2. Moreover, it can cure nasopharyngeal cancer and **Gynecologic Cancers**.



## 29. 5- ADENOSYL-L- METHIONINE DISULFATE TOSYLATE

Synonyms: Ademetionine disulfate tosylate

CAS: 97540-22-2

Molecular Formula:  $C_{15}H_{22}N_6O_5S_2 \cdot (H_2SO_4) \cdot C_7H_8SO_3$

Molecular Weight: 766.79

Assay: 99%

Function:

1. It can be used in the therapy of depression, arthritis, chronic hepatitis

and cholestasia;

2. moreover, it can be used in the prevention of liver cancer, or relieve the poisoning of chemicals, alcohol and cancer to liver, improve the curing of wound and growth of cartilage tissue;

3. it also can adjust the function of nerve centre system.

### **30. SAME (S-ADENOSYL-L-METHIONINE)**

CAS-No: 29908-03-0

Mol. Formula:  $C_{15}H_{22}N_6O_5S$

Mol. Weight: 398.44

Assay: 98%

Appearance: White fine powder

#### Function

1. SAME is an improvement of the cell metabolism biochemical drugs
2. SAME is a kind of good liver nutrition agent
3. SAME have diminish inflammation, relieve pain and tissue repair function, especially for arthropathy.

### 31. CITICOLINE SODIUM

CAS-No:33818-15-4

Mol. Formula:C<sub>14</sub>H<sub>25</sub>N<sub>4</sub>NaO<sub>11</sub>P<sub>2</sub>

Mol. Weight:510.31

Assay: 99%

Appearance: white powder or off-white crystal

#### Function

- 1.it can reduce the resistance of blood vessel of brain and accelerate substance metabolism of brain
- 2.It also can activate the mechanism of reticular formation of brain stem.
3. It can be used in the therapy of acute craniocerebral trauma and disturbance of consciousness after brain operation.

### **32. ADENOSINE TRIPHOSPHATE DISODIUM**

CAS-No:987-65-5

Mol. Formula:C<sub>10</sub>H<sub>14</sub>N<sub>5</sub>Na

Mol. Weight:551.15

Assay: 99%

Appearance:white powder or off-white crystal

#### Function

- 1.used in the disease caused by tissue injury and activity reduction of ecto enzyme
- 2.used in treatment of heart failure, carditis, miocardial infarction, cerebral arteriosclerosis, coronary sclerosis
- 3 used in treatment of progressive muscular atrophy , cerebral hemorrhage , chronic hepatitis, cirrhosis of liver and hearing handicap, etc.

### 33. ANIRACETAM

Aniracetam

1-(4-methoxybenzoyl)-2-pyrrolidinon

CAS-No: [72432-10-1]

Assay 99.6%

Grade: EP5

Mol. Formula: C<sub>12</sub>H<sub>13</sub>NO<sub>3</sub>

Mol. Weight: 219.24

Appearance: white Crystalline Powder

Function:

Aniracetam is an ampakine and nootropic of the racetam chemical class purported to be considerably more potent than piracetam. It is lipid soluble and has possible cognition enhancing effects. It has been tested in animals extensively, Alzheimer's patients and temporarily-impaired healthy subjects. It has shown potential as an anxiolytic in three clinical animal models. It is sold in the United States as a dietary supplement.

Aniracetam has also been shown to selectively modulate the AMPA receptor[2] and was used as the parent compound to derive a class of drugs known as the ampakines which are being investigated as nootropics and neuroprotective drugs for the treatment of Alzheimer's disease and other neurodegenerative conditions.

### 34. NEFIRACETAM

Nefiracetam

Synonyms: n-(2,6-dimethylphenyl)-2-oxo-1-pyrrolidineacetamide; [(2,6-dimethylphenyl)aminocarbonylmethyl]chloride;

CAS: 77191-36-7

Assay: 99.0%min

Molecular Formula: C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>

Molecular Weight: 246.31

Quality Standard; Enterprise standard

Appearance: A white Crystalline Powder

Action: raw materials for the cardiovascular and cerebral diseases

### 35. OXIRACETAM

Oxiracetam

CAS No: 62613-82-5

Assay: 98.0~101.0%

Molecular Formula: C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

Molecular Weight: 158.16

Appearance: White crystalline power

USES: used in medicine, intelligent promote senile brain dysfunction syndrome, mental behavior of mental disorder, etc

Density 1.416g/cm<sup>3</sup>

Melting point 165-168oC

Density 1.416g/cm<sup>3</sup>

Loss on drying: 0.5%max

Melting point 165-168°C

Density:1.416g/cm<sup>3</sup>

Melting point:165-168°C

Boiling point:494.6°C at 760 mmHg

Refractive index:1.57

Flash point:252.9°C

Vapour Pressur:7.39E-12mmHg



### 36. PRAMIRACETAM

Pramiracetam

Chemical Name: N-(2-(Bis(1-methylethyl)amino)ethyl)-2-oxo-1-pyrrolidineacetamide

CAS No.: 68497-62-1

Molecular Formula: C<sub>14</sub>H<sub>27</sub>N<sub>3</sub>O<sub>2</sub>

Molecular Weight: 269.38

Appearance: White crystal;

Pharmacology Action:

Pramiracetam is a nootropic drug derived from piracetam, and is more potent (i.e. lower dosage is used). It belongs to the racetam family of nootropics. Pramiracetam was developed by Parke-Davis based on Piracetam, and is 8-30 times stronger than Piracetam. It goes by the trade name Neupramir or Pramistar.

### 37. PIRACETAM

Piracetam anti-brain aging

Grade: CP, BP, EP

Purity: 98%,99%

Appearance: White or off-white crystalline powder

Packing: 25 Kg / Drum

Clarify of solution Be up to the standard

PH 5.0-7.0

Related substances The area of total impurities'peak isn't more than the area of the comparative solution's principal peak

Loss on drying  $\leq 0.5\%$

Residue on ignition  $\leq 0.1\%$

Heavy Metals  $\leq 20\text{PPM}$

Assay(HPLC) 98.0 percent to 102.0 percent

Packaging 20kg or 25kg per Platinum paper barrel;

20kg or 25kg per carton

Piracetam (sold under many brand names) is a drug. It appears to enhance and , slow brain aging, increase blood flow and oxygen to the brain, aid stroke recovery, and ameliorate Alzheimer's, Down's syndrome, dementia, and dyslexia, among other diseases and conditions. Piracetam's chemical name is 2-oxo-1-pyrrolidine acetamide; it shares the same 2-oxo-pyrrolidone base structure with (). Piracetam is a cyclic derivative of . It is one of the . Piracetam is prescribed by doctors for some conditions, mainly , but is used off-label for a much wider range of applications.

**38. 5-HTP, 5-HYDROXYTRYPTOPHAN, (GRIFFONIA SEED EXTRACT)**

CAS : 56-69-9

Packaging : 25kg/drum

Description

Purity: 99% HPLC

Appearance: white powder or off-white crystal

Function:

1. Improve sleep
2. Weight losing
3. Relieve prior menses syndrome (PMS)
4. Abstain from addiction
5. Cure of hemicrania

## **SAMPLE TECHNIC SHEET**

## Reishi Mushroom P.E. – polysaccharide



**Product Type:** Herbal Extract

**Variety:** Reishi Mushroom P.E.

**Form:** Powder

**Part:** fruiting body

**Extraction Type:** Solvent Extraction

**Packaging:** Bottle, Drum, Vacuum Packed

**Place of Origin:** China (Mainland)

**Grade:** First Class

**Brand Name:** ND Pharma & Biotech

**Model Number:** Polysaccharide 10%, 20%, 30% by H...

**Latin name:** Ganoderma lucidum

**Product Type:** Fine Brown Powder

**Part of the Plant Used:** Fruit Body

**Appearance:** yellow powder      Package: 25kg/drum

### Packaging & Delivery

**Packaging Detail:**

25kg / Fiber Drum with double-layer plastic bag inside.

### Specifications

1): 100% Natural Reishi Mushroom Extract

2): Polysaccharide 10%, 20%, 30% by HPLC

3): European Standard



## Reishi Mushroom P.E. - polysaccharide

Brief Introduction

### Synonyms

Ganodema lucidum Mushroom, Mannentake

Beta-Glucan

### Chemical Name:

Beta-Glucan, Beta-D-Glucan, Beta-(1,3)-D-Glucan

### Molecular Formula:

C<sub>18</sub>H<sub>30</sub>O<sub>14</sub>X<sub>2</sub>

### Mol. Wt.:

470.42

### Molecular Structure

Triterpenes (Ganoderic acids)

### Chemical Name:

Triterpenes, Triterpene saponins, Ganoderic acid A (a compound isolated from the Reishi mushroom)

### Cas No.:

81907-62-2

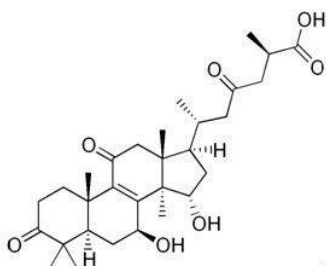
### Molecular Formula:

C30H44O7

**Mol. Wt.:**

516.67

**Molecular Structure:**



### Benefits

Reishi Mushroom contains a high concentration of beta-glucan and Granoderic acids (Triterpenes), compounds which has been shown to stimulate immune system and anti-tumor:

- Up-regulate the immune system (Immunomodulatory and immunotherapeutic activities)
- Anti-cancer, anti-tumor, and anti-neoplastic effects
- Prevent cancer metastasis
- Anti-bacterial and anti-viral activities
- Beneficial effect on Lowering Blood Pressure(via inhibition of angiotensin-converting enzyme)
- Beneficial effect on Lowering Blood Sugar
- Beneficial effect on Lowering Cholesterol
- Protective effects against liver injury by viruses and other toxic agents
- Weight loss aid

### Safety

Reishi Mushroom Extract is safe. No side and harmful effect have been found.

### Dosage

- The typical dose is 500-1500mg per day (usually in 2-3 doses throughout the day).
- Consult physicians for different condition specifics.

### **Reishi Mushroom Extract Features and Benefits:**

Reishi Mushroom Extract with many advantages as list in the following, produced as our patent-pending process and know-how technology from Ganoderma lucidum Mushroom

- Produced with pure water only
- High purity: over 30% (Polysaccharides as Beta-glucan and 4% Triterpenes)
- NO solvent - residual free
- Pesticide-free
- Crystal yellow-Brown in appearance
- High solubility in water
- High anti-bacteria, and longer shelf life

### **NOTES:**

All our products are accompanied of the proper CERTIFICATE OF ANALYSIS

All our products are manufactured under the higher standards of quality and Certification ISO.

All our plants and providers are regularly audited and supervised by our Technical and Scientific Inspectors.

We are Leaders in R+D+ Innovation.





**ND Pharma & Biotech NeuroScience Division**

Poligono de Valdredo, 12

33157 Oviñana, Cudillero, Asturias

[ndpharmabiotech@europe.com](mailto:ndpharmabiotech@europe.com)