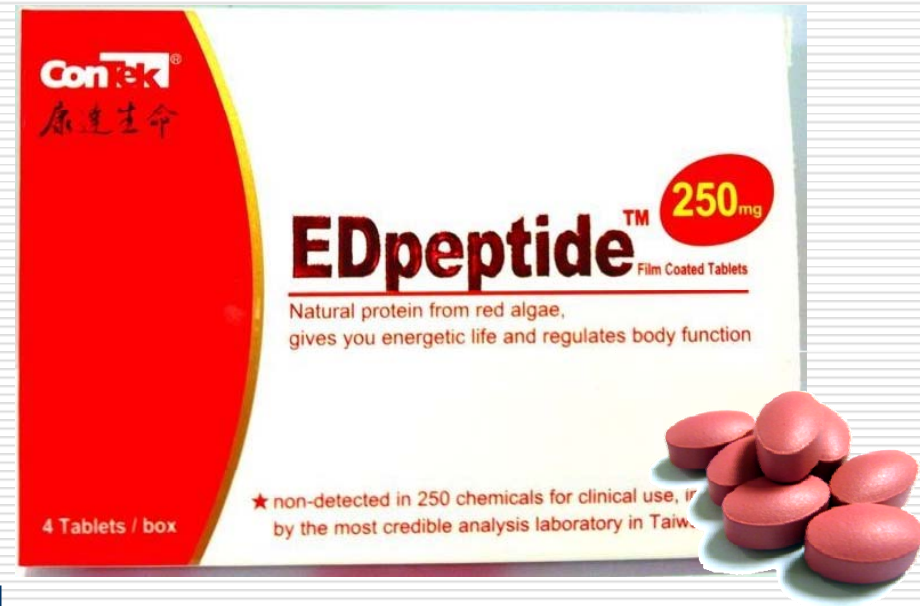


Red Algae Peptide Hydrolysate- EDpeptide

The Next Generations of Erectile Dysfunction Cure



ConTek

康達生命科學有限公司
Contek Life Science Co., Ltd.



康達生命科學有限公司
Contek Life Science Co., Ltd.

Contek Life Science Co., Ltd.

Having long been committed to engaging in R&D of new raw materials for health care foods, and has collaborated with Taiwan's top biotechnology medicine team to use the state-of-the-art biotechnology develop new formulas with manufacturing processes of new drugs.

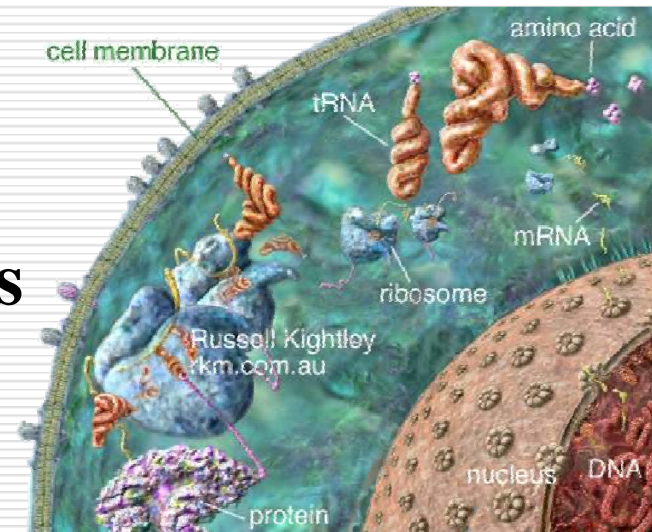
Contek Life Science specializes in transforming low absorption of fat-soluble substances into long-acting release and high degree of absorption rate of hydrosoluble substance.

Our range of products achieves the international quality standards that earns us trust and confidence from our international customers. We offer our customers the OEM/ODM service for new products and raw materials. We also offer seamless training and marketing information to our customers to expect to win-win result.

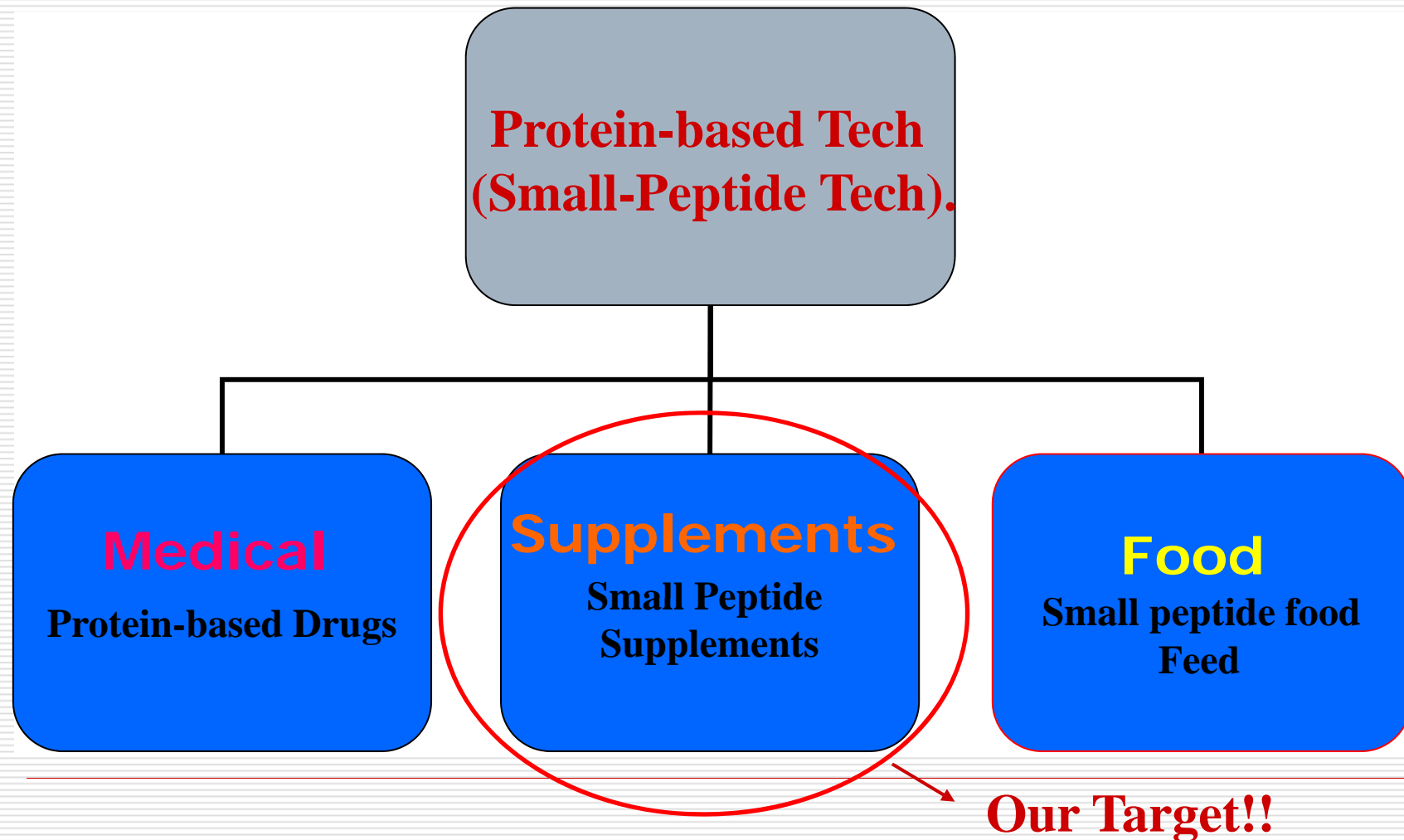


Agenda

- ❑ **The Small Peptide Hydrolysate Technology**
- ❑ **The Benefits of Small Peptide Supplements**
- ❑ **Erectile Dysfunction**
- ❑ **Source of EDpeptide**
- ❑ **Functions of EDpeptide**
- ❑ **How Dose EDpeptide Works**
- ❑ **Selling Points**
- ❑ **Additional Remark**



The Small Peptide Hydrolysate Technology



Small Peptides Exist in Human Body

Small Peptides in living organisms are classified according to their biological roles.

Enzymatic - trigger all the chemical reactions that occur in the cells.

Transport - carry other substances throughout the body or molecules across cell membranes.

Structural - help in supporting functions in hair and skin parts.

Storage - for store of amino acids.

Hormonal - coordinate body activities.

Receptor - built into the membrane of a cell and detect chemical signals released by other cells. They contribute to the cell's response to the chemical stimuli.

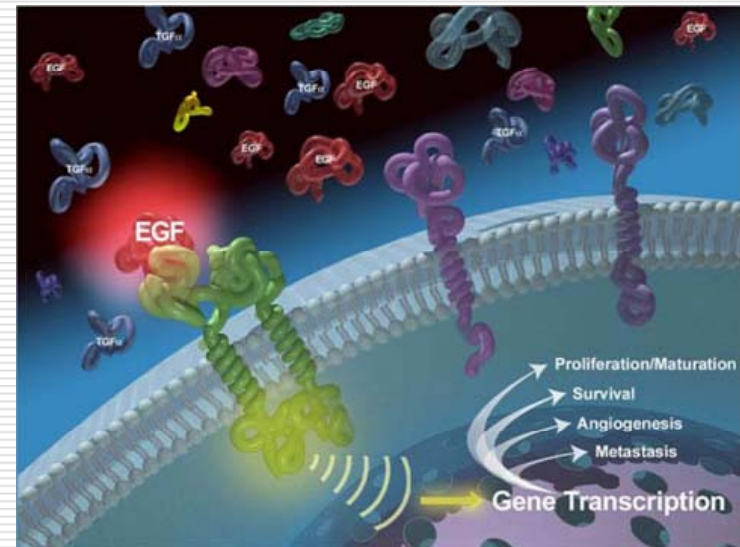
Contractile - help in movement.

Defensive - protect the body against diseases.

Small Peptide and Its Receptor

There are plenty of cytokines, growth factors and enzymes in human body that play important roles in program initiation.

Each cell actually equips with different receptors to receive external factors, through this mechanism small peptides can regulate gene expression in different kinds of cells.



The Benefits of Small Peptide Supplements

1. Directly absorbed by the intestinal mucosa:

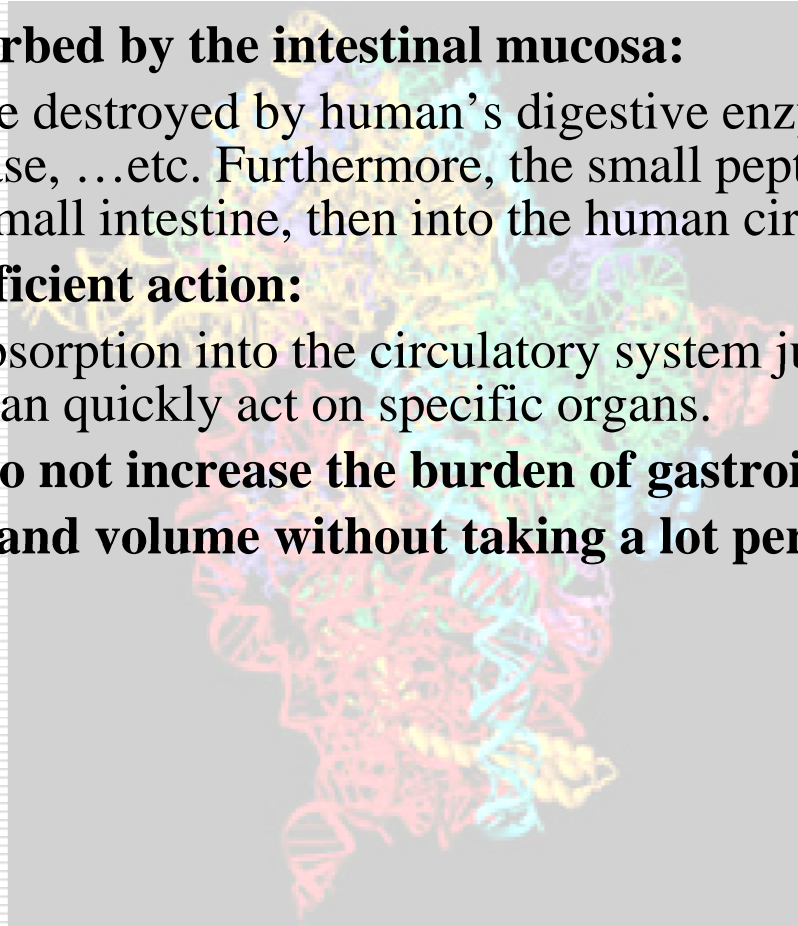
It would not be destroyed by human's digestive enzymes such as pepsin, trypsin, amylase, ...etc. Furthermore, the small peptide can be directly absorbed by small intestine, then into the human circulatory system.

2. Rapid and efficient action:

The time of absorption into the circulatory system just like intravenous injections; it can quickly act on specific organs.

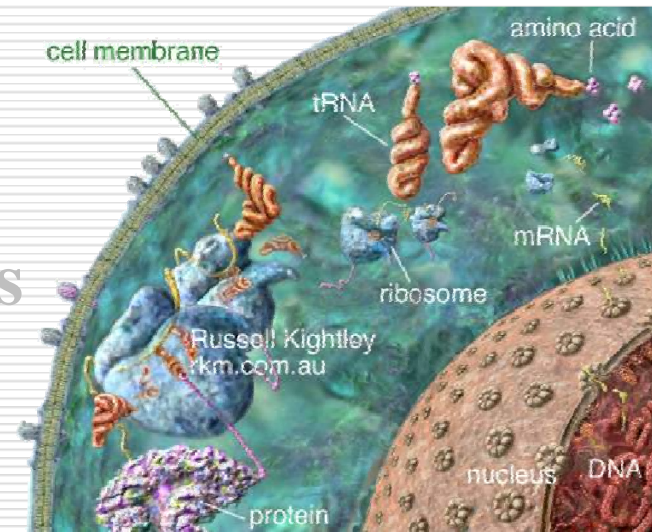
3. Absorption do not increase the burden of gastrointestinal function.

4. The number and volume without taking a lot per once can be effective.



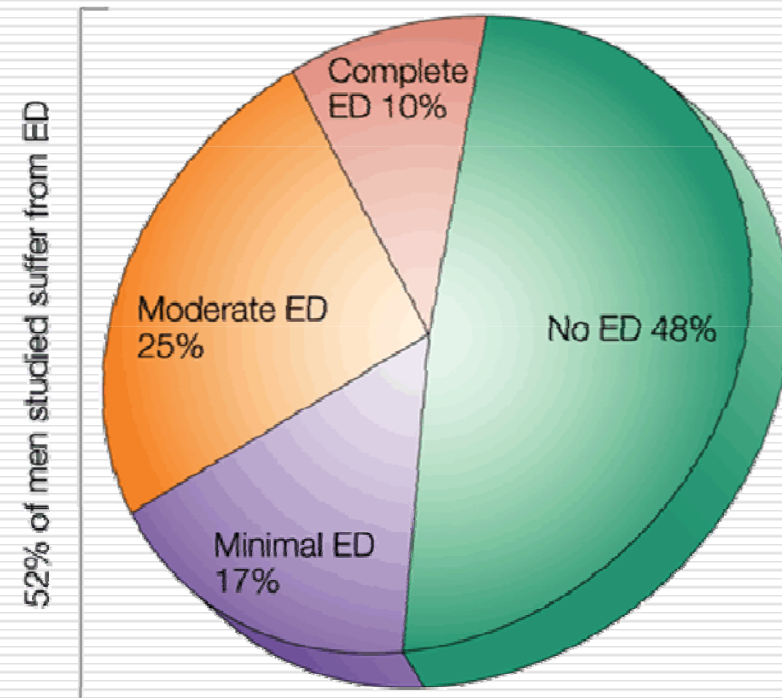
Agenda

- The Small Peptide Hydrolysate Technology
- The Benefits of Small Peptide Supplements
- Erectile Dysfunction**
- Source of EDpeptide
- Functions of EDpeptide
- How Dose EDpeptide Works
- Selling Points
- Additional Remark



Erectile Dysfunction (Impotence)

According to the **National Institutes of Health**, approximately 5 percent of 40-year-old men and between 15 and 25 percent of 65-year-old men experience ED on a long-term basis.



How The Erection Begins

1. Psychogenic impotence

3. Arteriogenic impotence

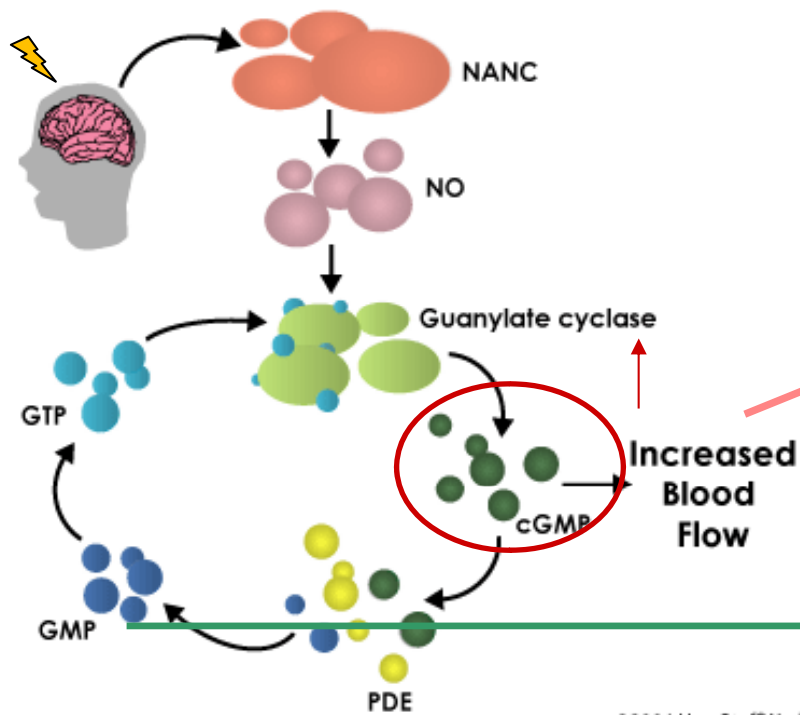
4. Venogenic impotence

Smooth muscle relaxation

Influx of arterial blood

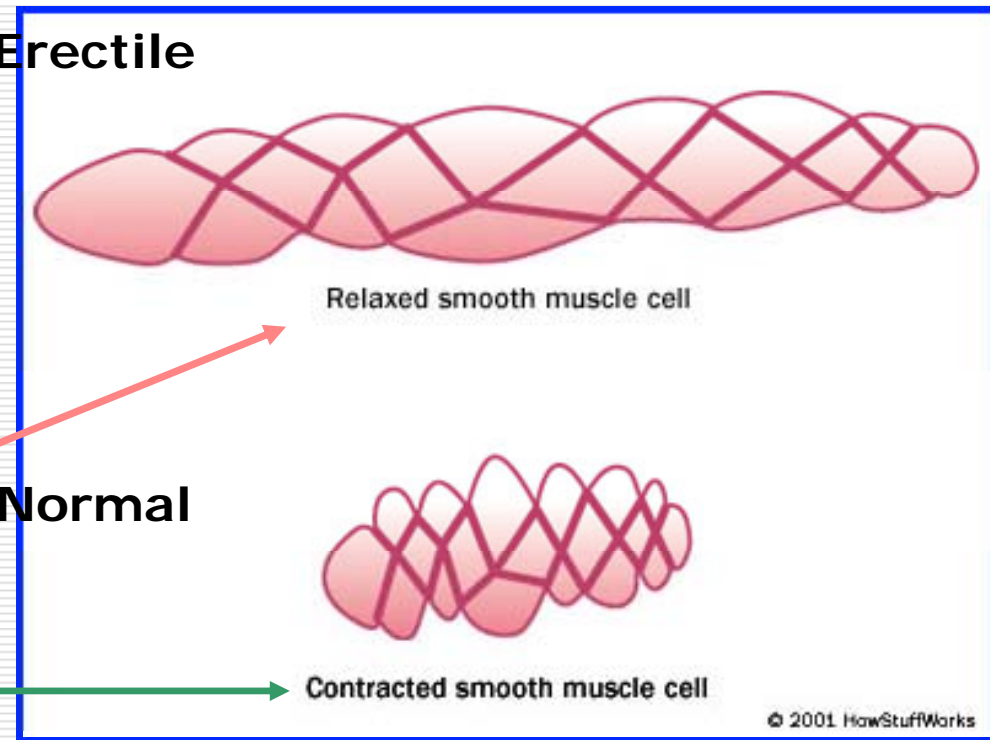
Vein Closed

2. Neurogenic impotence



Erectile

Normal

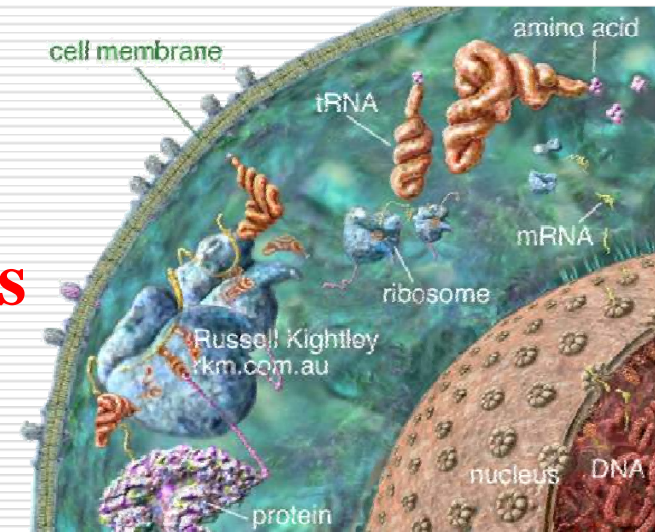


Smooth muscle contraction

A small amount of venous
blood supply nutrients

Agenda

- The Small Peptide Hydrolysate Technology
- The Benefits of Small Peptide Supplements
- Erectile Dysfunction
- Source of EDpeptide**
- Functions of EDpeptide**
- How Dose EDpeptide Works**
- Selling Points**
- Additional Remark**

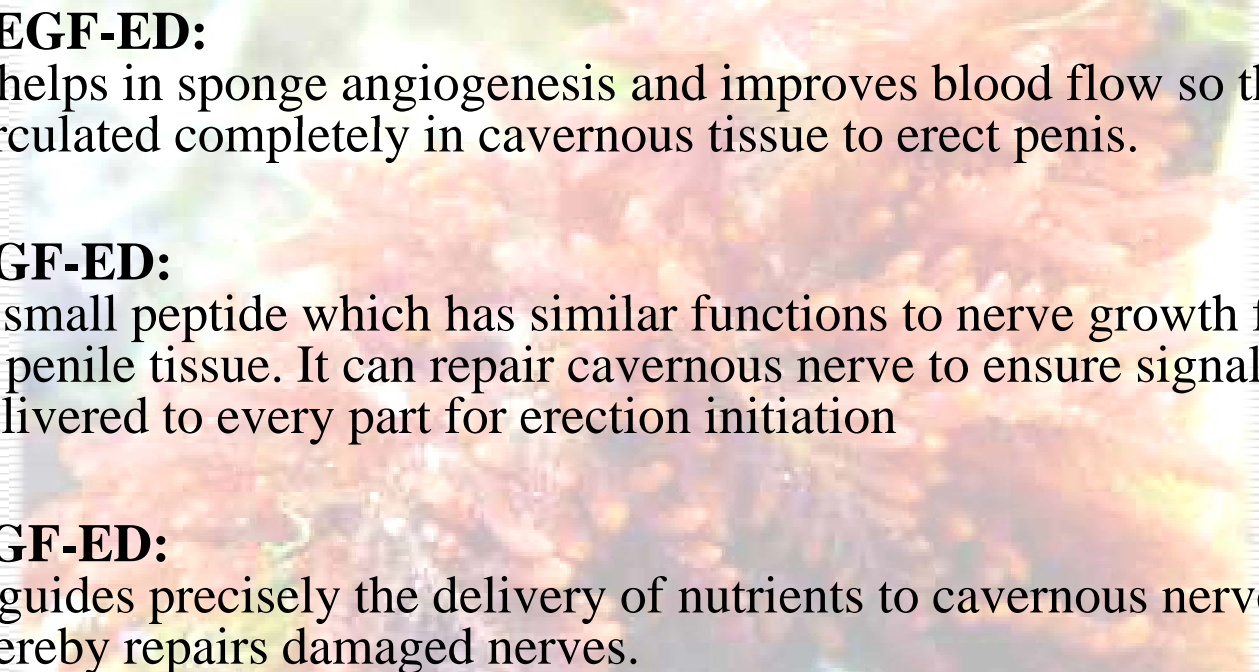


Source of EDpeptide

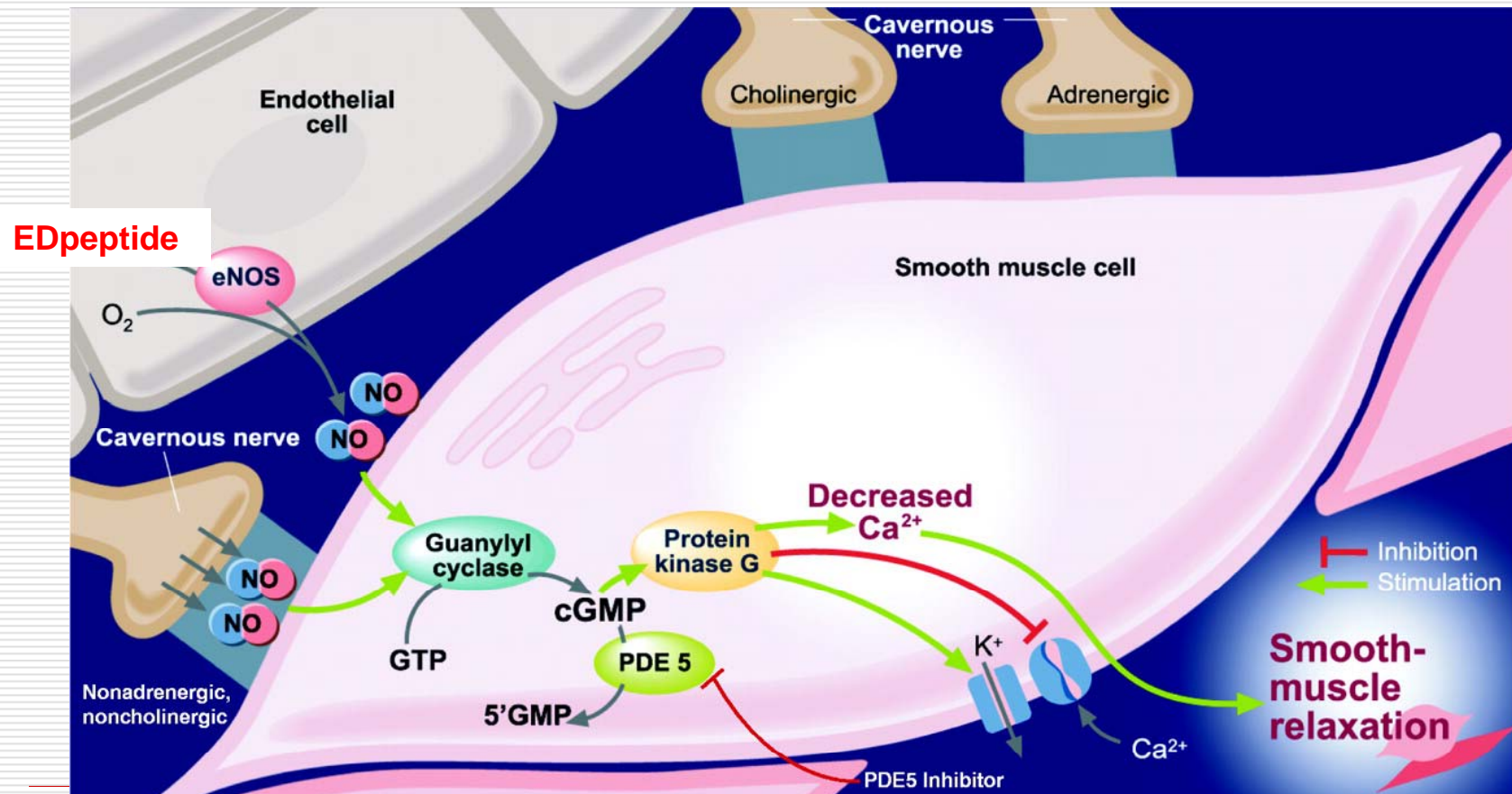
- ❑ ConTek first screened and found protein fragments from red algae which are effective for erection.
- ❑ Macromolecular protein chains have been cut off and only small peptides are taken.
- ❑ Functions and stabilities are further improved by protein chain modification technology of molecular biological engineering to become red algae small peptides.
- ❑ Patented photoreactor allows mass production without genes modification.



How EDpeptide Works (low dose)

- 
- **VEGF-ED:**
It helps in sponge angiogenesis and improves blood flow so that blood is circulated completely in cavernous tissue to erect penis.
 - **NGF-ED:**
A small peptide which has similar functions to nerve growth factor (NGF) in penile tissue. It can repair cavernous nerve to ensure signal has been delivered to every part for erection initiation
 - **TGF-ED:**
It guides precisely the delivery of nutrients to cavernous nerves and thereby repairs damaged nerves.
-

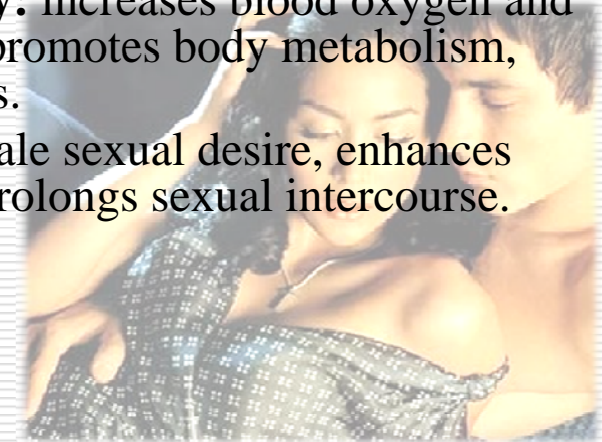
How EDpeptide Works (high dose)



EDpeptide → NO → cGMP ↑ → Muscle relaxation

Functions of EDpeptide

- ❑ **Arteries dilation and improves blood circulation:** reduces blood sedimentation, increases blood flow in penis, starts the sponge growth factors, enhances penis length and diameter.
- ❑ **Promotes penis congestion and stiffness:** promotes secretion of nitric oxide and nitric oxide synthesis, allows dilation of penile arteries and capillaries as well veins constriction to congest, expand and harden penis.
- ❑ **Improves persistence:** inhibits ejaculation nerve, reduces excitability to delay ejaculation, and therefore prolongs sexual orgasm.
- ❑ **Promotes blood circulation, enhances immunity:** increases blood oxygen and nutrients that carried by red blood cells in blood, promotes body metabolism, delays cell ageing and enhances immune functions.
- ❑ **Repairs nervous system:** improves effectively male sexual desire, enhances sexual pleasure, balances sexual excitement and prolongs sexual intercourse.





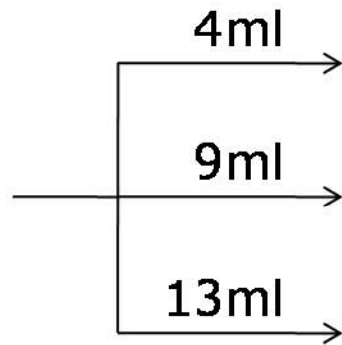
康達生命科學有限公司
Contek Life Science Co., Ltd.

An Exploration of the Mechanism of Fostering Erection via Taking EDpeptide

(1)



0.3%
EDpeptide
solution



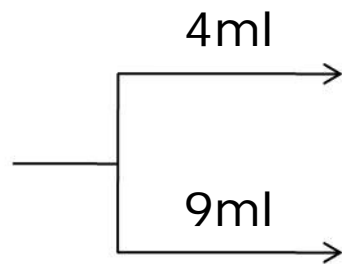
male sprague-dawley rats
12-15 weeks old
250-300g weight

Measure their NO and
cGMP production

(2)



0.3%
EDpeptide
solution



male sprague-dawley rats
12-15 weeks old
250-300g weight

EFS mimics
sexual
impulse

Test the hardness and
the duration time of
erection.

(3)



Feeding
everyday for
one week



Male HaM/ICR
mice

By real time
PCR

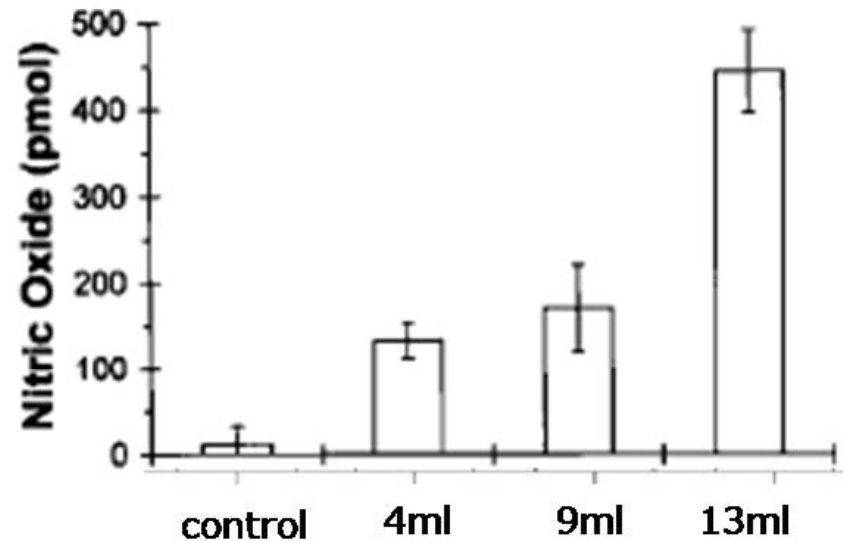
Measure their EGF,
NGF and TGF gene
expression

(1)

The NO Quantity in Rats' Corpora Cavernosa

The NO quantities in the saline, 4 ml, 9 ml, and 13 ml groups to feed the rats are 150 ± 8.2 , 200 ± 12.6 , 445 ± 13.3 pmol/0.2g tissue respectively.

It is discovered that the rats fed with 4ml, 9 ml and 13 ml solutions prove to have increased NO quantity as compared to the rats fed with saline.



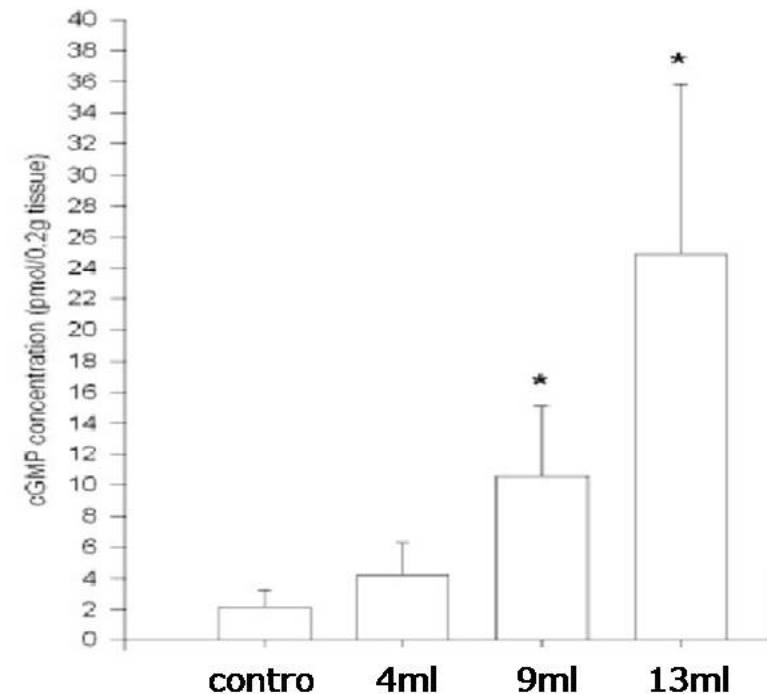
(1)

The cGMP Quantity in Rats' Corpora Cavernosa

The cGMP quantities in the saline, 4 ml, 9 ml, and 13 ml groups to feed the rats are respectively 2.2 ± 1.1 , 4.2 ± 2.1 , 10.6 ± 4.7 , 24.9 ± 10.9 pmol/0.2 g tissue.

It is discovered that the rats fed with 9 ml and 13 ml solutions prove to have increased cGMP quantity as compared to the rats fed with saline.

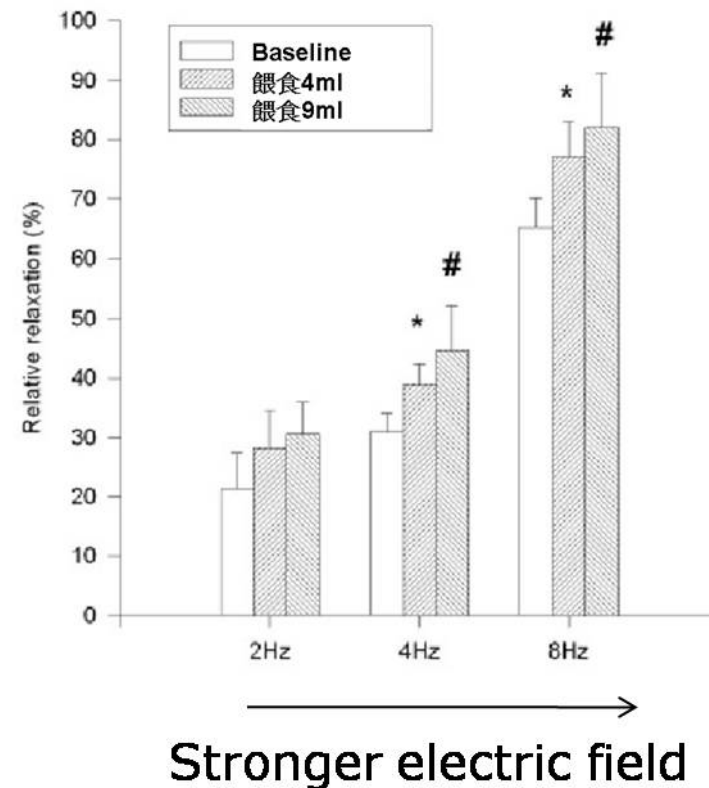
But rats fed with 4 ml solution prove no significance in statistics.



(2) Effect on Internal Pressure (Hardness) of Cavernosa

Rats fed with 4 ml at EFS cause extension effectiveness on $28.0 \pm 6.4\%$, $39.0 \pm 3.3\%$, and $77.1 \pm 5.9\%$ (the higher the harder).

Rats fed with 9 ml 10 minutes after EFS cause extension effectiveness on $30.5 \pm 5.4\%$, $44.5 \pm 7.5\%$, and $82.0 \pm 9.2\%$

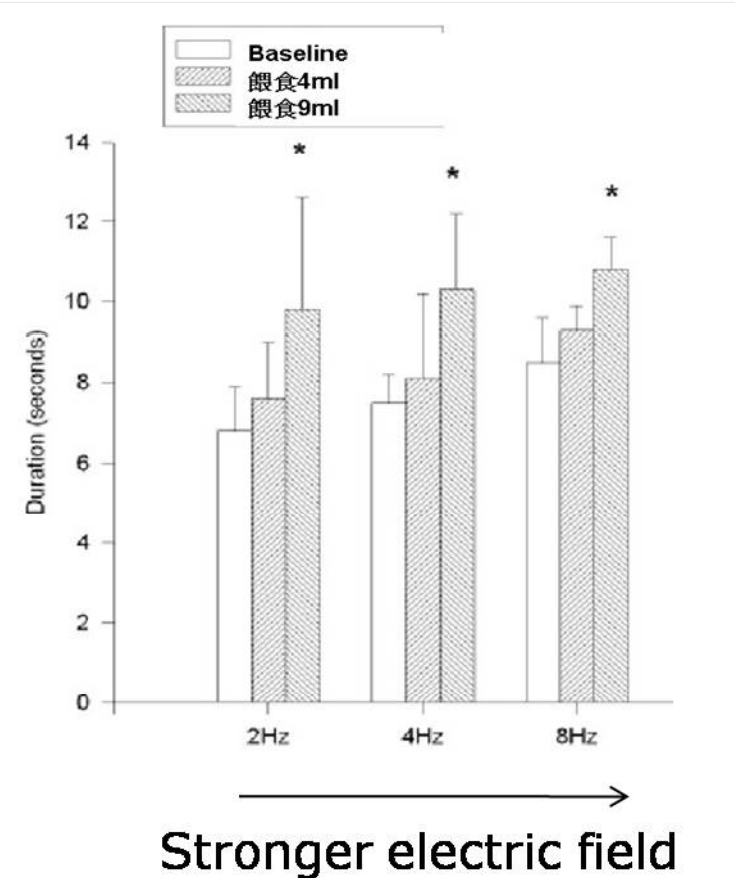


(2)

Effect on Duration Time of Cavernosa

Rats fed with 4 ml at EFS cause duration time last for 7.6 ± 1.4 sec, 8.1 ± 2.1 sec and 9.3 ± 0.6 sec (the longer the more durable).

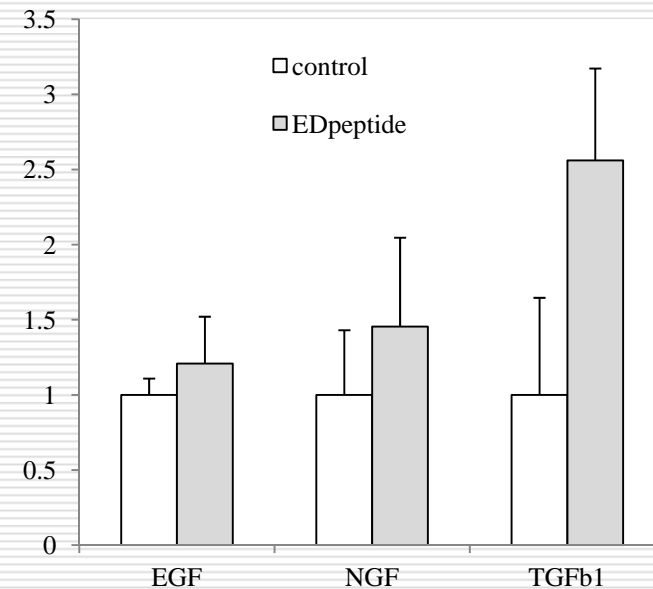
Rats fed with 9 ml after EFS cause duration time last for 9.8 ± 2.8 , 10.3 ± 1.9 and 10.8 ± 0.8 unit.



(3)

Effect on Growth Factors Gene Expression

After feeding rat with EDpeptide for 1 week (same dosage as 250mg for a 60kgs person), we then collected the blood and measured the growth factors quantity by qPCR. Then analyzed data by setting control group as 1, we have EDpeptide group as 1.2, 1.5, and 2.5 for EGF, NGF and TGFb1 respectively.



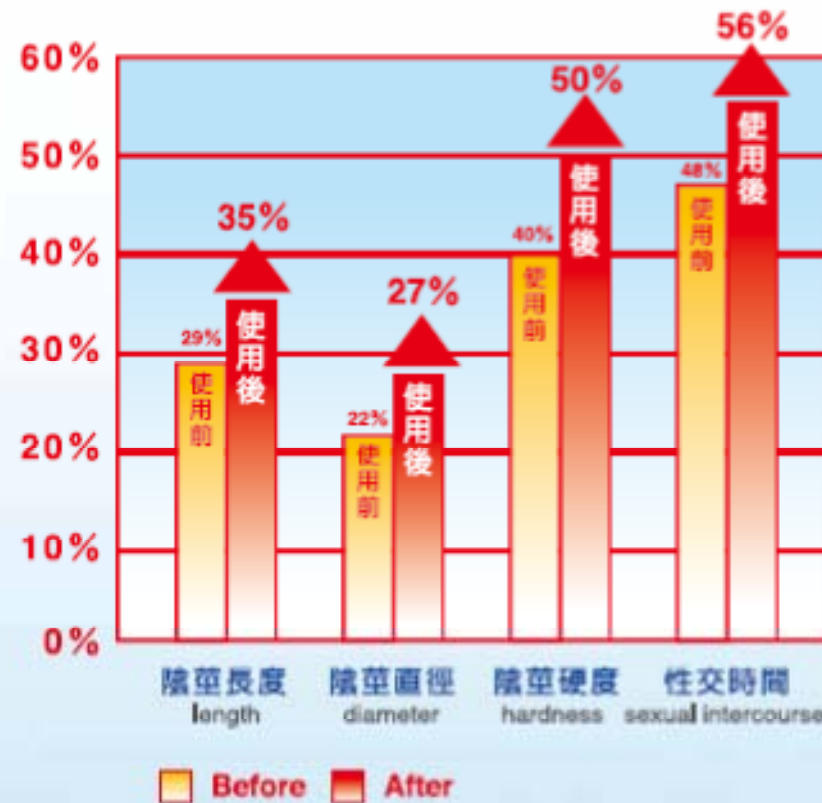
Conclusion:

- **EDpeptide can foster guanyly cyclase to produce cGMP, via NO effect the smooth muscle of cavernosa, for extension effect of cavernosa.** Also, it can increase the hardness and duration of erection at sexual stimulation (simulated by EFS). It is believed that this research can bring hope for treatment of erectile dysfunction.
 - **EDpeptide can also induce gene expression of EGF, NGF and TGFb1,** which will help in repairing in long term usage.
-

Case Studies

According to before and after use questionnaire survey from 50 witnesses, penis length, diameter, hardness, sexual intercourse and personal satisfaction after intake have shown a positive result.

50位見證滿意指數 Index of satisfaction from 50 witnesses



Safety Studies by Level Biotech

Pass Tests:




- Acute Toxicity Study in Rats
 - Bacterial Reverse Mutation Test
 - In vitro* Mammalian Chromosome Aberration Test
 - In vivo* Mammalian Erythrocyte Micronucleus Test
-



康達生命科學有限公司
Contek Life Science Co., Ltd.

Does Not Contain Ingredients of Western Medicine

Test reports of SGS Taiwan




食品實驗室-台北
FOOD LAB-TAIPEI
檢驗報告
Test Report

Contek Life Science Co., Ltd.
4F., NO 48, Huaining St., Zhongzheng Dist., Taipei City 10046,
Taiwan(R.O.C)


THE FOLLOWING MERCHANDISE WAS(WERE) SUBMITTED AND IDENTIFIED

Product Name: EDpeptide
Application: Contek Life Science Co., Ltd.
Manufacturer/Vendor: Contek Life Science Co., Ltd.
Country of Origin: TAIWAN
Sample Received: 2011/07/01
Testing Date: 2011/07/04

Test Results: -Please refer to next page(s)-



SGS TAIWAN Ltd.




食品實驗室-台北
FOOD LAB-TAIPEI
檢驗報告
Test Report

Contek Life Science Co., Ltd. Report No.: FA/2011/70190
Test Results: Page: 2 of 4

Test Item	Test Method	Results	MDL	Unit
Potent Drug	---	---	---	---
2-(2-ethoxy-phenyl)-5-methyl-7-propyl-3H-imidazo(5,1-f)-(1,2,4)triazin-4-one(Molecular weight:312)	With reference to Journal of Pharmaceutical and Biomedical Analysis Volume 40, Issue 2, 13 February 2006, Pages 305-311, 以及4.5, E.D. Drugs and Analogs, Samuel R. Gratz, Ph.D.	N.D.	10.0	ppm
Acetil acid/Molecular weight:356)	Food and Drug Administration. Analysis was performed by LC/MS/MS.	N.D.	10.0	ppm
Acetildenafil(Molecular weight:466)		N.D.	10.0	ppm
Aminotadalafil(Molecular weight:390)		N.D.	20.0	ppm
Carbodenafil(Molecular weight:452)		N.D.	10.0	ppm
Dimethylsildenafil(Molecular weight:488)		N.D.	10.0	ppm
Gendenafil(Molecular weight:354)		N.D.	10.0	ppm
Homosildenafil(Molecular weight:488)		N.D.	10.0	ppm
Hydroxyacetildenafil(Molecular weight:482)		N.D.	10.0	ppm
Hydroxyhomosildenafil(Molecular weight:504)		N.D.	10.0	ppm
Hydroxythiohomosildenafil(Molecular weight:520)		N.D.	10.0	ppm
Piperiacetildenafil(Molecular weight:437)		N.D.	10.0	ppm
Pseudovardenafil(Molecular weight:459)		N.D.	10.0	ppm

SGS Taiwan Ltd. FOOD Lab Taipei SF, NO. 125 Wukong Road, Wuku Industrial Zone, New Taipei City, Taiwan 台北縣新莊區五工路125號
Member of the SGS Group (SGS SA)



食品實驗室-台北
FOOD LAB-TAIPEI
檢驗報告
Test Report

Contek Life Science Co., Ltd. Report No.: FA/2011/70190
Page: 3 of 4

Test Item	Test Method	Results	MDL	Unit
Sildenafil	With reference to Journal of Pharmaceutical and Biomedical Analysis Volume 40, Issue 2, 13 February 2006, Pages 305-311, 以及4.5, E.D.	N.D.	10.0	ppm
Tadalafil	Drugs and Analogs, Samuel R. Gratz, Ph.D. Food and Drug Administration. Analysis was performed by LC/MS/MS.	N.D.	10.0	ppm
Thiodimethylsildenafil(Molecular weight:504)		N.D.	10.0	ppm
Thiohomosildenafil(Molecular weight:504)		N.D.	10.0	ppm
Thiosildenafil(Molecular weight:490)		N.D.	10.0	ppm
Vardenafil		N.D.	10.0	ppm
Noracetildenafil(Molecular weight:452)		N.D.	10.0	ppm

Note : 1. The report is separated for used in vain.
2. "ND": not-detected means the test results is lower than detection limit value.
3. "Negative": means the test results is lower than detection limit value.
- END -

SGS Taiwan Ltd. FOOD Lab Taipei SF, NO. 125 Wukong Road, Wuku Industrial Zone, New Taipei City, Taiwan 台北縣新莊區五工路125號
Member of the SGS Group (SGS SA)



Selling Points

- 1. 100% natural, unlike other generic drugs that contain unknown chemicals.**
 - 2. Directly absorbed by intestinal mucosa.**
 - 3. Rapid and efficient effects than other herbal medicines.**
 - 4. Will not cause the burden of stomach; won't cause kidney failure in metabolism either.**
 - 5. Has long-term benefits that cure and repair penis tissue.**
 - 6. Even taking it everyday will not do harm to health.**
 - 7. No serious side effects.**
-