

## **TB-1000 FACT**

### **What is TB-1000?**



**TB-1000** is a peptide which is applied by subcutaneous injection to promote angiogenesis, wound healing muscle growth. It has demonstrated cardio protective and immune-potentiating effects, as a potent anti-aging, and has anti-scarring properties.

**TB-1000** is a synthetic version of the naturally occurring peptide present in virtually all human and animal cells first located in the Thymus gland in 1981.

The potency of Thyrosin Beta 4 present in **TB-1000** is approximately **99%**, the highest of its kind.

### **How does TB-1000 Work?**

In angiogenesis and in wound healing, **TB-1000** acts by accelerating the migration of blood vessel cells and skin cells and increasing the production of extracellular matrix-degrading enzymes.

It has also been shown to stimulate epidermal stem cell differentiator. When applied by subcutaneous injection, it assists in the generation of new blood vessels and aids wound healing by promoting skin cell regeneration.

### **How does TB-1000 Work Scientifically?**

One of TB-1000 4's key mechanisms of action is its ability to regulate the cell-building protein, actin, a vital component of cell structure and movement. Of the thousands of proteins present in cells, actin represents up to 10% of the total proteins which therefore plays a major role in the genetic makeup of the cell.

This potent peptide is a member of the ubiquitous family of 16 related molecules with a high conservation of sequence and localization in most tissues and circulating cells in the body. TB-1000 not only binds to actin, but also blocks actin polymerization and is the actin-sequestering molecule in Eukaryota cells.

TB-1000 was identified as a gene that was up-regulated four to six fold during early blood vessel formation and found to promote the growth of new blood cells from the existing vessels.

This peptide is present in wound fluid and when administered subcutaneously, it promotes wound healing, muscle building, decreases recovery time of muscles fibers and their cells.

An additional key factor of TB-1000 is that it promotes cell migration through a specific interaction with actin in the cell cytoskeletal. It has been demonstrated that a central small amino acid long actin binding domain has both blood cell reproduction and wound healing characteristics. These characteristics are uncovered by accelerating the migration of endothelial cells and keratinocytes. It also increases the production of extracellular matrix-degrading enzymes.

TB-1000 is different from other repair factors, such as growth factors, in that it promotes endothelial and keratinocyte migration. It also does not bind to the extracellular matrix and has a very low molecular weight meaning it can travel relatively long distances through tissues.

## **The Product**

**TB-1000** is different from other repair products in that it promotes blood vessel cell and skin cell regeneration and migration, thus assisting rapid repair and healing. Because it promotes skin cell regeneration it has also shown evidence of anti-scarring properties.

## **Benefits of TB-1000**

In performance animals, as in all animals, the benefits include faster and better wound repair, and faster recovery from injury. Trials to date indicate faster recovery time (wear and tear) from training, increased muscle girth, increased muscular endurance, increased muscular strength and increased energy levels.

## **What does TB-1000 Achieve?**

Whether your animal is in performance or competition, or simply a cherished pet, **TB-1000** provides rapid surface wound healing with little or no scarring and minimal discomfort. If the animal experiences wound injury, it will benefit from **TB-1000**.

As **TB-1000** heals it at the cellular level, it is natural and rapid. Stem cells play an integral part in wound healing and regeneration of body organs and tissue at the cellular level.

## Can All Animals Benefit?

All mammalian animals can benefit from the use of **TB-1000**. Whether an animal is large or small, a performance animal, a breeding animal or a loved and valued pet, **TB-1000** can assist in rapid wound healing and blood vessel regeneration. **TB-1000** is known to help diabetes in dogs.

## Is TB-1000 Safe?

As **TB-1000** is a synthetic version of the naturally occurring peptide found in all animal cells, it does not pose as a foreign substance to the animals' body. When used within the recommendations of this fact sheet, **TB-1000** is completely safe.

## Side Effects?

**TB-1000** is a naturally occurring peptide promoting the repair and regeneration of skin and blood vessels. It is completely Drug and Chemical free. There are no side effects with the use of this product. It does not swab.

## Is it Legal for Performance Animals?

**TB-1000** is 100% drug and chemical free. If used according to directions for use, it will not compromise any performance animal in any event or race in which it competes. **IT DOES NOT SWAB.**

## Sizes & Availability?

**TB-1000** is available in boxes of 6 x 20 ml vials. Each vial contains 20 mL of Thyrosin Beta 4 peptide.

## How is it Administered?

**TB-1000** is administered by way of subcutaneous injection. It can be applied by any competent person, however, it is preferably administered by a qualified veterinarian.

## How often can it be used?

It is recommended **TB-1000** is used in accordance with the dosages stated in this fact sheet.

## **Directions for Use Storage**

**TB-1000** should be stored at room temperature. Do not expose to sunlight. Keep out of reach of children.

## **Warning**

Do not use if the security seal is broken or missing. Do not use after the expiration date of the vials? Used vials do not contain any toxic products and can be disposed of safely.

## **Dosage**

Large Animals - 2mL (1 vial / week for 6 weeks) Small Animals - 1mL (half vial) / week for 6 weeks ADD 2mL of the provided saline solution to the compound. Add saline at an angle, expelling along the inside wall of the vial. Compound will dissolved immediately. Do not add the saline directly on the compound.

## **BENEFITS OF TB-1000**

- ✓ Increased Muscle Growth
- ✓ Increased Energy Levels
- ✓ Improved Muscle Tone
- ✓ Increased Muscular Endurance
- ✓ Muscle Spasm Relaxation
- ✓ Enhanced Tissue Repair
- ✓ Reducing Joint Inflammation
- ✓ Build Cardiac Muscle
- ✓ Helping Maintain Flexibility
- ✓ Decreased Recovery Time - from Training and Racing

**TB-1000** in relationship with the Thymosin Beta 4 has with actin ultimately is at the base of several bodily processes. Some of these processes include:

- ✓ **A boost of endothelial and keratinocyte migration** – this process means that Thymosin Beta 4 (TB-1000) aids to not only form and maintain blood vessels, but it can also help in the creation of an epidermal barrier against heat, water loss, UV rays, and other pathogens.
- ✓ **Wound healing capabilities** – it has been determined that Thymosin Beta 4 (**TB-1000**) can be detected in the fluid that can build up and around an animal test subject's wound, and it has shown that its natural properties contribute to a wound getting better and quicker.
- ✓ **Long distance internal transport** – Because Thymosin Beta 4 (**TB-1000**) has been determined to have a low molecular weight, it has been determined that the peptide has the ability to travel through tissues over the course of long distances.

## **FAQS**

### **WHAT ARE THE SIDE EFFECTS OF USING TB-1000?**

Post clinical safety trials and trials with some of the world's most renowned equine trainers, there have been no noted side effects with the use of Thymosin Beta 4.

It is not an oil-based solution and therefore poses no threat to the exterior complexion of the animal.

### **HOW DOES TB-1000 WORK?**

Thymosin beta 4 promotes cell migration and angiogenesis, which enhances tissue and fiber repair and maintenance. Thymosin beta 4 increases endothelial cell migration resulting in significant increases in endurance. Muscle growth is seen, as it is highly effective in building extra protein cells needed for lean muscle gain.

### **TB-1000 BE USED IN CONJUNCTION WITH OTHER SUPPLEMENTS OR ANTIBIOTICS?**

As Thymosin Beta 4 is a naturally occurring peptide found in all animal cells, it does not pose as a foreign substance to the body. This means the product can be safely

used in conjunction with any supplement or anti-biotic and not compromise the effect of these substances.

### **HOW OFTEN CAN TB-1000 BE ADMINISTERED?**

Horses – Use one 5ml vial every week for a 6 weeks period. Continue if the horse is still in training and/or racing.

### **DO I HAVE TO KEEP TB-1000 REFRIGERATED?**

**TB-1000** best to store in refrigerator or a cool environment keep out of sunlight.

### **DOES TB-1000 CONTAIN ANY ILLEGAL OR BANNED SUBSTANCES?**

**TB-1000** is 100% drug free and chemical free. As a result, **TB-1000** DOES NOT SWAB or contain any banned substances.

Thymosin Beta 4 has been approved for use in performance horses by USEF.

### **WHAT IS THE PURITY OF TB-1000 USED?**

Thymosin Beta 4 is 98% pure and ranks as one of the highest purity sources of Thymosin Beta 4 available in the world.