



## MitoGlowX 10mg

### About

MitoGlowX is a mitochondria-targeting peptide being studied for its antioxidant and protective effects. It may help reduce cellular damage from mitochondrial dysfunction, supporting brain, heart, muscle, and metabolic health, particularly in the context of aging and chronic disease.

\*These products are for research use only and are not intended for human consumption, medical use, therapeutic use, or diagnostic purposes. They are not to be used in foods, drugs, cosmetics, dietary supplements, or any products intended for humans or animals. Peptides are not sterile, have not been tested for safety or efficacy in humans, and must not be injected, ingested, inhaled, applied to the skin, or administered in any form. No product sold is intended to treat, cure, mitigate, or prevent any disease.

### What's Included

- Four vials, concentration: 10mg/2mL
- One vial will last 5 injections; four vials will last one month

### Reconstitution kit

- (1) 20 29-30G subq needles
- (1) 5mL or 10mL syringe
- (1) 25G needle with syringe
- (1) 10 mL Bacteriostatic water

### Clinical Research Potential Benefits:

- May support neuroprotection and cognitive health
- May promote cardiovascular and metabolic function
- May enhance muscle performance and energy levels
- May help protect against age-related cellular decline

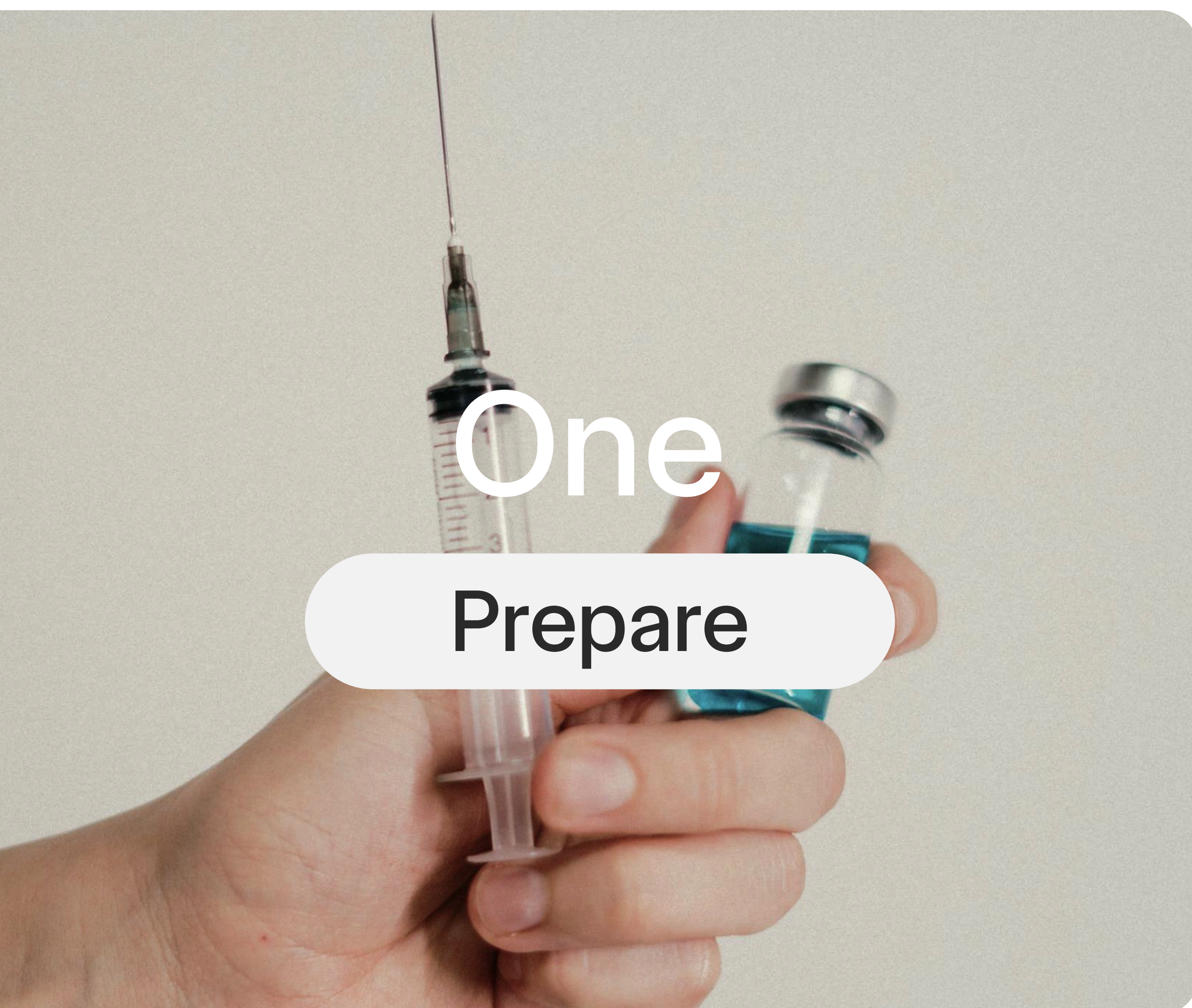
### Clinical Research Suggested Use:

- Draw up 40 units (2mg) into the syringe
- Administer in the AM, 5 days per week, 2 consecutive days off
- Duration: 2 months
- Reconstitute: add 2mL of bacteriostatic water to the to the lyophilized powder vial
- Injection type: subcutaneous injection

### Reconstitution & Administration\*

\*Instructions start on page 2

## MitoGlowX 10mg Reconstitution



**STEP 1:** Remove plastic covers, clean vial and bacteriostatic water top with alcohol pad for 15 seconds

**STEP 2:** Using the large syringe from your administration kit, pull out 2mL of Bacteriostatic water

- It may take a few repetitions to load your syringe with the 2mL with no air pockets

**STEP 3:** Once you've loaded your syringe, slowly inject the 2mL of Bacteriostatic water into your MitoGlowX vial:

- On its side to not damage the bonds of the product
- Do not shake, gently swirl if needed
- Allow the solution to sit for at least 5 minutes

**\*Supplies:** 5 mL syringe (large), 25G needle, Bacteriostatic water, MitoGlowX vial, Alcohol pad



**STEP 1:** With the smaller needle draw up 40 units of the MitoGlowX into the small syringe from your kit

**\*Supplies:** 29G-30G subcutaneous syringe with needle (small), Alcohol pad



**STEP 1:** Clean the injection area with an alcohol pad

**STEP 2:** Inject subcutaneously (see pg 3)

- Repeat 5 days per week in the AM, 2 consecutive days off
- Duration: 2 months
- One vial will last 5 injections; four vials will last one month

## Injection Steps

### Subcutaneous Injection steps:

#### 1 Choose & Clean the Injection Site

- Use the abdomen (3 inches from the belly button), thigh, or upper arm. Rotate sites to prevent irritation. Clean the area with an alcohol swab and let it dry.

#### 2 Inject

- Pinch 1 to 2 inches of skin, insert the needle at a 90° angle, and slowly push the plunger down.

#### 3 Remove the Needle & Dispose

- Pull the needle out at the same angle, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

#### 4 Monitor for Reactions

- Mild redness or soreness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

### Intramuscular Injection steps:

#### 1 Choose & Clean the Injection Site

- Use the thigh (vastus lateralis), upper arm (deltoid), or glute (ventrogluteal or dorsogluteal muscle).
  - Rotate sites to prevent soreness. Clean the area with an alcohol swab and let it dry.

#### 2 Inject

- Stretch the skin taut, hold the syringe like a dart at a 90° angle, and insert the needle quickly and smoothly. Slowly push the plunger down to inject.

#### 3 Remove the Needle & Dispose

- Pull the needle straight out, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

#### 4 Monitor for Reactions

- Mild soreness or redness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

## MitoGlowX 10mg Mechanism of Action

- **Mitochondrial Targeting and Accumulation:**
  - MitoGlowX is a mitochondria-targeted tetrapeptide designed to selectively accumulate within the inner mitochondrial membrane (IMM), the site of oxidative phosphorylation and ATP synthesis. Its unique aromatic-cationic structure allows it to penetrate cellular and mitochondrial membranes efficiently, concentrating at the heart of cellular energy production.
- **Inner Mitochondrial Membrane Stabilization:**
  - By binding to cardiolipin, a phospholipid critical for maintaining mitochondrial membrane integrity, MitoGlowX stabilizes the structure and function of the IMM. This interaction optimizes electron transport chain (ETC) efficiency, reduces electron leak, and minimizes the generation of reactive oxygen species (ROS), thereby preserving mitochondrial potential and bioenergetic capacity.
- **Enhanced ATP Production and Cellular Energy:**
  - Through improved ETC coupling and membrane stabilization, MitoGlowX enhances ATP synthesis and overall mitochondrial efficiency. These effects restore energy balance in high-demand tissues such as cardiac, skeletal muscle, and neural cells, improving cellular performance under metabolic stress.
- **Cytoprotective and Anti-Apoptotic Effects:**
  - MitoGlowX protects cells from apoptosis by reducing mitochondrial stress, preventing cytochrome c release, and inhibiting downstream caspase activation. This protection maintains cellular viability during oxidative, ischemic, or inflammatory injury.
- **Reduction of Oxidative and Inflammatory Stress:**
  - By decreasing ROS production and improving mitochondrial redox balance, MitoGlowX mitigates oxidative damage and downstream inflammatory signaling. This contributes to improved tissue recovery and resilience in conditions of mitochondrial dysfunction.
- **Systemic Benefits and Longevity Support:**
  - Through restoration of mitochondrial function, MitoGlowX supports cellular longevity, metabolic stability, and improved organ function across systems affected by mitochondrial decline, particularly the heart, brain, and skeletal muscle.