# Actovegin®

translated from original Russian leaflet by RussianMeds Store <a href="https://russianmeds.com">https://russianmeds.com</a>

Name in Cyrillic: Актовегин®

Active substance: Deproteinized calves blood gemoderivat

## Pharmachologic effect:

Actovegin® is an antihypoxant, which has three types of effects: metabolic, neuroprotective and microcirculatory. Actovegin® increases oxygen uptake and utilization;

Inositol phospho-oligosaccharides (included in the formulation of Actovegin®) positively influence the transport and utilization of glucose, which leads to an improvement in the energy metabolism of cells and a decrease in the formation of lactate in ischemic conditions.

### Pharmacodynamics:

There are several ways of implementing the neuroprotective mechanism of the drug action.

Actovegin® inhibits the development of apoptosis induced by beta-amyloid (Aβ25-35).

Actovegin® modulates the activity of the nuclear factor kappa B (NF-kB), which plays an important role in the regulation of apoptosis and inflammation in the central and peripheral nervous system.

Another mechanism of action is associated with the nuclear enzyme poly (ADP-ribose) -polymerase (PARP). PARP plays an important role in the detection and repair of damage to single-stranded DNA, but excessive activation of the enzyme can trigger cell death processes in conditions such as cerebrovascular disease and diabetic polyneuropathy. Actovegin® inhibits the activity of PARP, which leads to a functional and morphological improvement in the state of the central and peripheral nervous system.

The positive effects of Actovegin®, affecting the processes of microcirculation and endothelium, are an increase in the rate of capillary blood flow, a decrease in the pericapillary zone, a decrease in the myogenic tone of precapillary arterioles and capillary sphincters, a decrease in the degree of arteriolovenous shunting blood flow with predominant circulation of blood in the capillary bed and stimulation of endothelial nitric oxide synthase function , which affects the microcirculatory bed.

The effect of Actovegin® occurs no later than 30 minutes after its administration. The maximum effect is observed 3 hours after the parenteral and 2-6 hours after oral administration.

#### Pharmacokinetics:

Using pharmacokinetic methods, it is impossible to study the pharmacokinetic parameters of Actovegin®, since it consists only of physiological components that are usually present in the body.

### Indications:

As part of complex therapy:

- Cognitive impairment, including post-stroke cognitive impairment and dementia;
- violations of peripheral circulation and their consequences;
- diabetic polyneuropathy.

# **Contraindications:**

- hypersensitivity to the Actovegin, similar drugs or excipients;
- fructose intolerance, glucose-galactose malabsorption or insufficiency of isomaltase sucrose;
- Children and adolescence under 18 years.

the drug should be administered with caution in pregnancy and during breastfeeding.

### Interaction:

The drug interaction of Actovegin® is currently unknown.

# **Dosing and Administration:**

### TABLETS:

1-2 tablets 3 times a day, without chewing, before meals, with a small amount of liquid. The duration of treatment is 4-6 weeks.

INJECTABLES (solution 40mg/ml):

Metabolic and vascular disorders of the brain. 5–25 ml (200–1000 mg of the drug) per day intravenously every day for 2 weeks, followed by a transition to a tablet form.

Ischemic stroke. 20-50 ml (800-2000 mg of the drug) in 200-300 ml of 0.9% sodium chloride solution or 5% dextrose solution intravenously drip for 1 week, then - 10-20 ml (400-800 mg of the drug) intravenously drip - 2 weeks, followed by a transition to a tablet form.

Peripheral (arterial and venous) vascular disorders and their consequences. 20-30 ml (800-1200 mg of the drug) in 200 ml of 0.9% sodium chloride solution or 5% dextrose solution intraarterially or intravenously daily for 4 weeks.

Diabetic polyneuropathy. 50 ml (2000 mg of the drug) per day intravenously for 3 weeks, followed by switching to a tablet form - 2-3 tablets 3 times a day for at least 4-5 months.

Healing wounds. 10 ml (400 mg of the drug) intravenously or 5 ml intramuscularly daily or 3-4 times a week, depending on the healing process. Possible joint use with dosage forms of Actovegin® for external use.

Prevention and treatment of radiation damage to the skin and mucous membranes during radiation therapy. The average dose is 5 ml (200 mg) intravenously daily during the intervals of radiation exposure.

Radiation cystitis. Transurethral, daily, 10 ml solution for injection (400 mg of the drug) in combination with antibiotic therapy. The injection rate is about 2 ml/min.

The duration of the course of treatment is determined individually according to the symptoms and severity of the disease.

### Overdose:

According to the data of preclinical studies, Actovegin® does not show toxic effects even when the dose is 30-40 times higher than the doses recommended for use in humans. There were no cases of overdose of Actovegin®.

## Special instructions:

Instructions for the use of breakpoint ampoules:

- 1. Position the tip of the ampoule with the breaking point upwards.
- 2. Gently tapping with your finger and shaking the ampoule, let the solution flow down from the tip of the ampoule.
- 3. Break off the tip of the ampoule along the break point by moving away from you.

Manufacturer: Takeda Pharmaceutical

### Reliable supplier with fast Worldwide shipping:

RussianMeds Online Store https://russianmeds.com

#### Storage:

The temperature is not above 25 °C (77 °F). Keep out of the reach of children. Shelf-life of the drug is 5 years (solution 40 mg/ml), 3 years (tablets).