SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

DogStem suspension for injection for dogs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance:
$6.5x10^6$ - $9x10^6$ Equine umbilical cord mesenchymal stem cells

Excipient
For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Suspension for injection.

Cloudy colourless suspension.

4. CLINICAL PARTICULARS

4.1 Target species

Dogs

4.2 Indications for use, specifying the target species

Improvement in function, reduction of pain and lameness associated with mild to severe osteoarthritis in hip and elbow joints.

4.3 Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

4.4 Special warnings for each target species

The veterinary medicinal product has been demonstrated to be efficacious in dogs with mild to severe osteoarthritis in elbow or hip joints diagnosed using a combination of local heat, effusion, joint mobility, joint mobility, pain on palpation, lameness and radiological image. Efficacy data are not available regarding treatment of other joints.

Efficacy of the veterinary medicinal product demonstrated that by day 56 51.4% of dogs treated with the product had achieved more than 7% improvement in functional outcome (measured by Peak Vertical Force (normalised for bodyweight) with associated improvement in lameness, pain on palpation, local heat and effusion and improved quality of life.

The onset of efficacy may be gradual. Clinical improvement may be seen by 4 weeks after treatment, but more likely by 8-12 weeks after treatment.

Reduced pain and increased mobility of the treated joint may last from 3 months to more than a year (in 27.5% of dogs treated with the product in a clinical study; results from an owner questionnaire) There may be improvements in temperament, in playing with other dogs, in stiffness, ability to run and climb stairs.

The efficacy and safety of the veterinary medicinal product were demonstrated in a pivotal field trial after single administration of the veterinary medicinal product and concurrent single systemic administration of an NSAID. According to the benefit-risk assessment of the responsible veterinarian of the individual case a single dose systemic NSAID may be administered on the day of intra-articular injection.

No efficacy and safety data are available regarding the treatment in more than one arthritic joint at the same time. See section 4.6.

4.5 Special precautions for use

Special precautions for use in animals
Correct placement of the needle is crucial to avoid accidental injection into blood vessels and an associated risk of thrombosis.

The safety of the veterinary medicinal product has only been investigated in dogs at least one year old.

Special precautions to be taken by the person administering the veterinary medicinal product to animals

There are only limited data available to support the human safety of this product. In particular, women of childbearing age and people with compromised immune systems should take care to avoid contact with the product. It is recommended to wear impermeable gloves at all times whilst handling and administering the product. Wash any spills off exposed skin, eyes, or mucous membranes immediately.
The product contains Dextran-40, which may cause hypersensitivity (allergic) type reactions in some people. Avoid contact with the product if you know you are sensitised to this substance.

Take care not to accidentally self-administer this product. In case of accidental self-injection, this product can cause pain, local inflammatory reactions and swelling at the site of injection, which may persist for several weeks. Transient fever may also occur. Seek medical advice immediately and provide the package leaflet or label to the physician

4.6 Adverse reactions (frequency and seriousness)

Lameness and pain (mild to severe) was reported very commonly within 24 hours after product administration. Lameness and pain with a delayed onset (≤1 week post-treatment) was also observed commonly. Resolution of lameness and pain depended on the severity. Mild lameness and pain resolved completely within a few days without the need for anti-inflammatory treatment. Severe lameness and pain

required symptomatic treatment with non-steroidal anti-inflammatory drugs (NSAIDs) and complete remission took a period of weeks

The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals treated displaying adverse reaction(s))
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

4.7 Use during pregnancy, lactation or lay

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

Use only accordingly to the benefit/risk assessment by the responsible veterinarian

4.8 Interaction with other medicinal products and other forms of interaction

Do not administer simultaneously with any other intraarticular veterinary medicinal product.

4.9 Amounts to be administered and administration route

Route of administration:
Intraarticular use.

Posology:
A single intraarticular injection of 1 ml ($6.5x10^6$ - $9x10^6$ equine umbilical cord mesenchymal stem cells) into the affected joint.

Method of administration:
The veterinary product must be administered intraarticularly, only by a veterinary surgeon, taking special precautions to ensure the sterility of the injection process.
The product must be handled and injected following sterile techniques and in a clean environment.
Swirl gently before use in order to ensure the contents are well mixed.
Use a 23G needle.
Intraarticular placement should be confirmed by the appearance of synovial fluid in the hub of the needle.
The use of a single dose of systemic NSAIDs is recommended on the day of product administration

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

No data available

4.11 Withdrawal period

Not applicable

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Musculo-skeletal system, other drugs for disorders of the musculo-skeletal system, equine stem cells

ATC vet code: QM09AX90

5.1 Pharmacodynamic properties

Mesenchymal stem cells have immunomodulatory and anti-inflammatory properties that may attributed to their paracrine activity, -e.g. prostaglandin (PGE2) secretion, and can possess tissue regenerative properties.

These pharmacodynamic properties may be also relevant for equine umbilical cord derived MSCs (EUC-MSCs) but have not been demonstrated in proprietary studies conducted with the product. The potential of EUC-MSCs to secrete PGE2 with and without stimulation by synovial fluid has been demonstrated in studies in vitro.

5.2 Pharmacokinetic particulars

To what extent EUC-MSCs from this product persist after intraarticular administration to dogs is not known as no proprietary biodistribution studies have been conducted with DogStem.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Adenosine
Dextran-40
Lactobionate
HEPES N-(2-hydroxyethyl) piperazine-N´-(2-ethanesulfonic acid)
Glutathione
Sodium salts
Chlorine salts
Bicarbonate salts
Phosphate salt
Potassium salts
Glucose
Sucrose
Mannitol
Calcium salts
Magnesium salts
Trolox (6-hydroxyl-2,5,7,8- tetramethylchroman-2-carboxylic acid)
Water for injections.

6.2 Major incompatibilities

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products in the same syringe.

6.3 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 21 days.

Shelf life after first opening the immediate packaging: Use immediately.

6.4 Special precautions for storage

Store and transport refrigerated (2 °C – 8 °C).
Do not freeze.

6.5 Nature and composition of immediate packaging

Cyclic olefin vial closed with a bromobutyl rubber stopper and a flip off aluminium cap.

Pack size: Cardboard box with 1 vial containing 1 ml.

6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements

7. MARKETING AUTHORISATION HOLDER

EquiCord SL
C/ Loeches 103-D
Alcorcon
Madrid
28925
Spain

8. MARKETING AUTHORISATION NUMBER

Vm 55127/5000

9. DATE OF FIRST AUTHORISATION

07 September 2022

10. DATE OF REVISION OF THE TEXT

September 2022

Find more product information by searching for the ‘Product Information Database’ or ‘PID’ on www.gov.uk.

Approved: 07 September 2022