



# Immunocidin® Equine

An immunotherapeutic that safely treats equine sarcoid tumors.



Immunocidin Equine is a USDA-approved immunotherapeutic for the treatment of sarcoid tumors in horses.

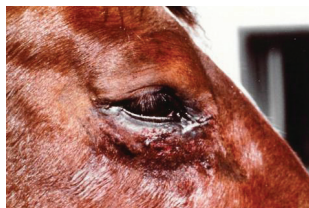
Although Immunocidin Equine is administered by intratumoral injection, the response is generalized and untreated sites frequently undergo regression as well.

## Why use Immunocidin Equine?

- It has a high post-treatment tumor-free rate
- It is well-tolerated by horses, including older animals
- It has minimal side effects
- It is an economical treatment option for your clients
- It has an excellent safety profile, and is safe for use in pregnant mares



Prior to treatment



Seventeen (17) days after third Immunocidin treatment

Give your client an economical, well-tolerated sarcoid treatment option.

 **NovaVive**  
An immunobiology company

Phone: 1-844-663-3349

Email: [sales@NovaVive.ca](mailto:sales@NovaVive.ca)

[www.NovaVive.ca](http://www.NovaVive.ca)

# Immunocidin® Equine

An immunotherapeutic that safely treats equine sarcoid tumors.



Immunocidin Equine, mycobacterium cell wall fraction immunostimulant (MCWF), is approved by the USDA for the treatment of equine sarcoid tumors.

## Equine Sarcoid Tumors

Equine sarcoids are locally aggressive fibroblastic neoplasms considered to be the most common skin tumors of horses worldwide. They are often found around the eyes, head/face, neck, chest, and shoulder, and also at the site of old scars.

Equine sarcoids have been linked to infection of the horse with bovine papillomavirus (BPV) types 1, 2 and 13 (Lancaster *et al.*, 1977; Sundberg *et al.*, 1977; Otten *et al.*, 1993; Lunardi *et al.*, 2013). The fact that viral DNA was found only in sarcoid tissues in most studies infers a relationship between viral infection and neoplastic transformation.

Young to middle-aged horses are most commonly affected by sarcoid tumors.

Sarcoids can appear as tiny, singular lumps, or can appear in clusters. Some sarcoids may appear like smooth, nodular skin lumps, especially in the early stages, while others are rough-looking and irregular in shape. As they enlarge, the skin may ulcerate and become infected. At this stage, the sarcoids are considered fibroblastic or malevolent. Sarcoids may also appear as flat, slightly bumpy areas of skin with a dry, scaly appearance. This form of tumor is sometimes mistaken for ringworm.

Treatment options include surgery, ligation, cryotherapy, topical treatment, radiation therapy, laser removal, or immunotherapy.

## When to use Immunocidin Equine

Immunocidin Equine represents an immunotherapeutic option that can be administered as an intratumoral injection, alone or in conjunction with other therapies.

Equine sarcoids have been shown to be responsive to immunotherapy with MCWF (Murphy *et al.*, 1979). A study using MCWF for the treatment of equine sarcoids demonstrated that 73% of the cases underwent complete regression and 27% of the cases experienced partial regression (Data on file, Study ID# ER-1). MCWF possesses antiviral and antitumor capabilities, making Immunocidin Equine a feasible equine sarcoid treatment. Immunocidin Equine has been used by veterinarians successfully for the treatment of facial equine sarcoids (personal communication, pictures provided).

The actual dosage varies with tumor size. One mL should be considered the minimum dose for any tumor. Although Immunocidin Equine is administered by intratumoral injection, the response is generalized and untreated sites frequently undergo regression as well. The average individual dose is 5 to 10 mL, but can range from 1 to 60 mL depending on the size of the tumor and the severity of the case. The maximum dose should never exceed 1 mL of Immunocidin Equine per cubic centimeter of tumor. Treatment should be repeated every 1 to 3 weeks until the tumor is resolved (generally repeated at 10- to 14-day intervals). Commonly, 3–4 treatments are required to achieve remission.

Immunocidin Equine is well-tolerated by horses, including older animals.