

PLS-D1000/C2000

**PLS-D1000/PLS-C2000 is a DNA therapy for dog/cat
with anemia caused by chronic renal failure**



PLS-D1000/C2000

Product Description

Plumblin Life Sciences, Inc. has a plasmid-based technology that allows an animal to optimize its production and release of endogenous hormones. This synthetic DNA sequence encodes for the specific growth hormone releasing hormone (GHRH). The intramuscular injection and electroporation of a GHRH-expressing plasmid is both a generally safe and efficacious solution for stimulating the release of GHRH, thus resulting in increased circulating levels of GH and IGF-I in dogs/cats. The anabolic responses to a single dose of this therapy might be beneficial in dogs/cats with anemia.

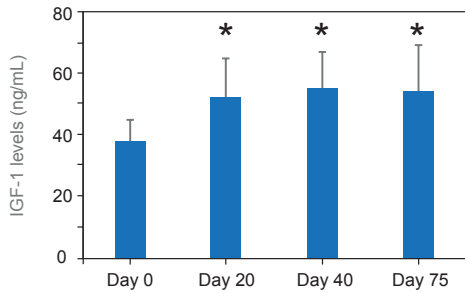
Product Mechanism

The synthetic DNA sequence, a plasmid encoding for the GHRH, is injected into the skeletal muscle, and is subsequently trafficked inside the cell membrane with a small pulse of DC electrical energy. Once placed inside the protective environment of the skeletal muscle cell, the plasmid then triggers the expression of the targeted protein from the transfected cells and the GHRH is then secreted into the circulation. Once the expressed GHRH reaches the pituitary gland, it exerts its normal biological function and releases growth hormone (GH) into the circulation. Both direct effects of GHRH on peripheral tissues and clinical effects of the resulting optimized GH and its downstream effectors levels may include enhanced immune function, management of anemia and consequently reduced morbidity.



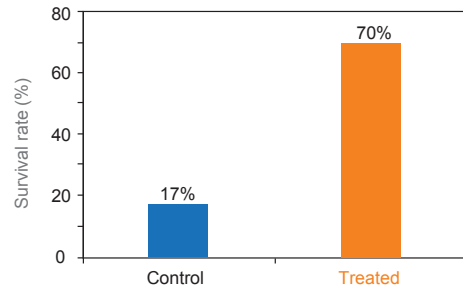
PLS-D1000 can increase survival rate in dogs/cats with anemia caused by renal failure

Increased level of IGF-1 (*p<0.05 vs. baseline)



PLS-D1000 Treated

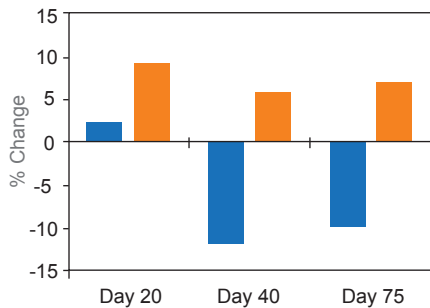
75 Day Survival



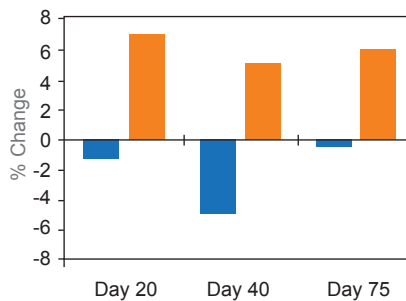
70% survived 75 days after treatment with PLS-D1000 compared to 17% of controls.

Brown PA., *BMC Biotechnol.*, (2009)

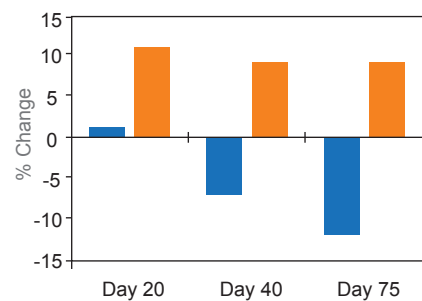
Red Blood Cell



Hematocrit



Hemoglobin



■ control ■ Treated

Brown PA., *BMC Biotechnol.*, (2009)



The maintenance of kidney function after PLS-D1000 treatment

