

Galectin-1 Immunomodulation and Myogenic Improvements in Muscle Diseases and Autoimmune Disorders

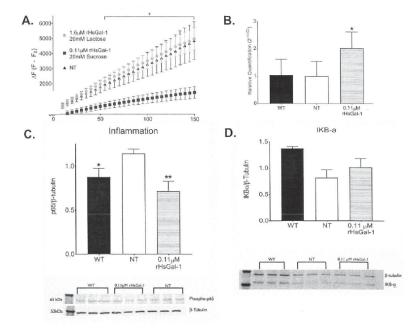
BYU #2019-015

DESCRIPTION

Galactin-1 (Gal-1) is a small protein that has many therapeutic properties. Researchers at BYU discovered that recombinant human Gal-1 treatment improves membrane repair capacity, increases myogenic markers and decreases inflammation in dysferlin deficient myotubes, providing novel evidence regarding how Gal-1 favorably improves muscle function in limb girdle muscular dystrophy type 2B (LGMD2B).

PROBLEM SOLVED

Muscular dystrophy is a group of muscle diseases that gradually cause the muscles to weaken, leading to an increasing level of disability. The purpose of this invention is to state the role and therapeutic viability of Galectin-1 in muscular dystrophy and autoimmune diseases. Gal-1 has the potential to increase membrane repair capacity and shift immune homeostasis away from chronic inflammation.



A. The CRD of Galectin-1 is responsible for increased membrane repair in dysferlin deficient myotubes.

B. Galectin-1 transcript levels are up regulated with rHsGal-1 treatment. C & D. Decreases in NF κ -B pathway is down regulated due to rHsGal-1 treatment in a time sensitive manner.

KEY ADVANTAGES

- » Improved therapeutic profile
- » Enhanced therapeutic outcomes
- » Effectual as a therapeutic in autoimmune diseas

Offer: License

Exclusive World Wide All Fields of Use

IP Status: Patent Pending

APPLICATIONS

The main applications of this technology are in muscle dystrophy and autoimmune disorders.



Lead Inventor

Dr. Pam Van RyPhD, Cellular and Molecular Pharmacology and Physiology



Mike Alder mike_alder@byu.edu (801) 422-6266