BIO Scientific pty. ltd.

Newsletter September 2017

BioScientific aims to keep our researchers and customers updated with news from our various suppliers with our Newsletter –

ARBOR ASSAYS™ Interactive Assay Solutions™

ARBOR ASSAYS™ Interactive Assay Solutions™

Oxidative stress has been implicated in a wide variety of pathologies including Parkinson's disease, Alzheimer's disease, atherosclerosis, heart attack and cardiovascular disease, cancer, diabetes, and chronic fatigue syndrome. Oxidative stress also triggers a process called mitohormesis, which may play a significant role in normal aging. All of this results from a temporary imbalance between the formation and scavenging of reactive oxygen species (ROS,also known as "free radicals"). In vivo free radicals are a normal consequence of aerobic metabolism and are typically either removed or converted into other products by a complex system of specific enzymes and non-enzyme antioxidant compounds. One area of ongoing oxidative stress research is the possibility that dietary antioxidants taken in from food might be able to reduce reactive oxygen species in the body and potentially protect from oxidative stress related damage. Several so called "superfoods" have been demonstrated to contain higher than average levels of various antioxidant compounds.

What remains to be conclusively proven is to what degree these exogenous antioxidants can influence the levels of reactive oxygen species in the body. In recent study Sanguigni et al.1 sought to investigate this further by comparing the antioxidant levels (as determined by the Arbor Assays FRAP™ (Ferric Reducing Antioxidant Power) Detection Kit and other indicators) and oxidative stress markers between test subjects who ate antioxidant rich ice cream (containing dark cocoa, green tea and hazelnuts) and control subjects who ate the same amount of a standard commercial milk chocolate ice cream. Their results showed a statistical increase in antioxidant potential as well as a corresponding decrease in the oxidative stress markers measured. Demonstrating not only is ice cream a lovely way to reduce mental stress, but choosing foods high in antioxidants has the potential to reduce oxidative stress as well. A positive result all around! Visit www.arborassays.com for more details. Quotations sales@biosci.com.au

New Yellow Fever Virus Monoclonal Antibodies

Yellow Fever Virus is a member of the Flaviviruses that is transmitted to humans via infected mosquitos. Infection with this virus occurs in tropical areas including Africa and South America.

ViroStat has just released a new set of Monoclonal Antibodies to the NS1 protein of the virus. This protein appears early during the infection in serum of those infected. These antibodies do not cross react with related Flaviviruses. ELISA pairing recommendations can be found on the data sheet which can be downloaded from the website, www.virostat-inc.com

Skeletal Muscle Satellite Cell System

HSkMC are isolated from the bicep or quadriceps (thigh) muscle.
•Cryopreserved at passage 3.
•Normal morphology for 3 passages, guaranteed.
•Grown in StemLife™ Sk Culture Medium.
•5,000 cells/cm2 Inoculation Density recommended for expansion.
•Passage at 70 to 90% Confluence, recommended.
•[1:6] to [1:10] Split Ratio, recommended

Normal Human Skeletal Muscle Satellite Cells, p4, 4 days after inoculation with 5,000 cells/cm2 (100X).

To receive further information please contact sales@biosci.com.au

PROTEIN ONE
Proteins for Drug Discovery

Contact BioScientific for pricing

Sales@biosci.com.au

PROTEIN ONE
Leading Advancement in Protein Science™
www.proteinone.com

ProTie™ Ligase for Protein/Peptide & Cell Modifications

- Super Active Ligase (250-folds higher than wild-type enzyme)
- Ultra Pure Recombinant Ligase
- Protein Modifications with Peptides bearing Phosphate, Sugars and Drugs)
- Peptide-Peptide Ligation and Protein Cyclization
- Live Cell Surface Modifications with Proteins, Peptides & Dyes
- Ligation can be carried out at 0-37°C with equal efficiency

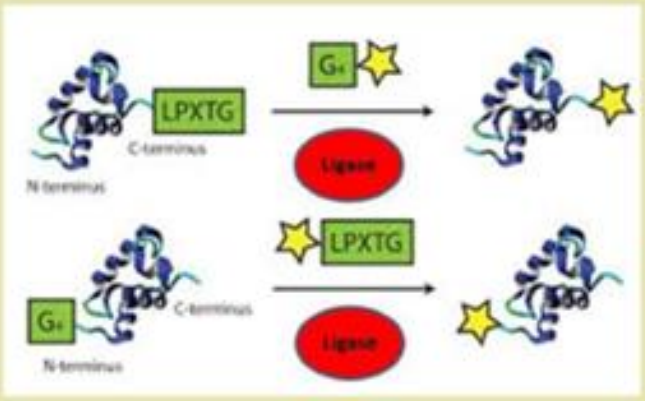
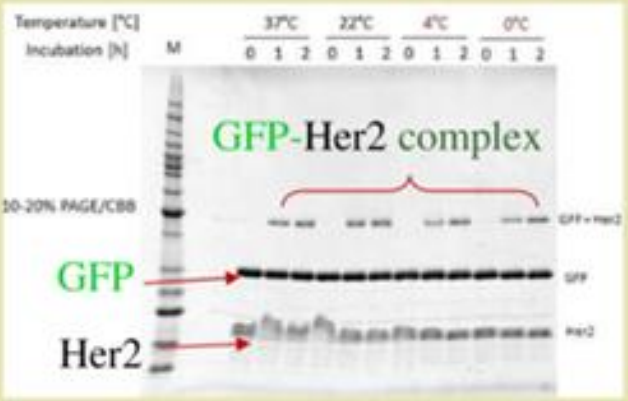
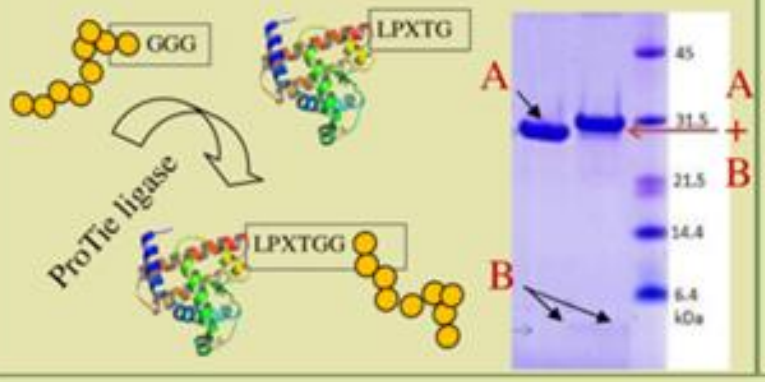


Illustration of protein-peptide/dye ligation catalyzed by ProTie ligase. A protein with a tag of LPXTG can be modified with any ligand bearing with glycine (Gn) tag.

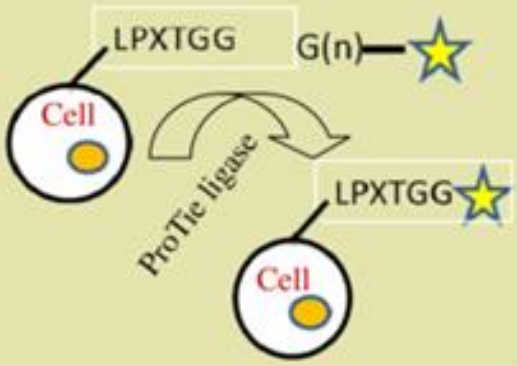


SDS-PAGE analysis of GFP with LPXTG tag conjugated with Her2 with G(n) tag by ProTie ligase under various temperatures, Equal ligation efficiency was found.

Protein (A) conjugated with peptide (B) with up to 95% yield of AB complex



Live cell surface labeling with peptide or dye



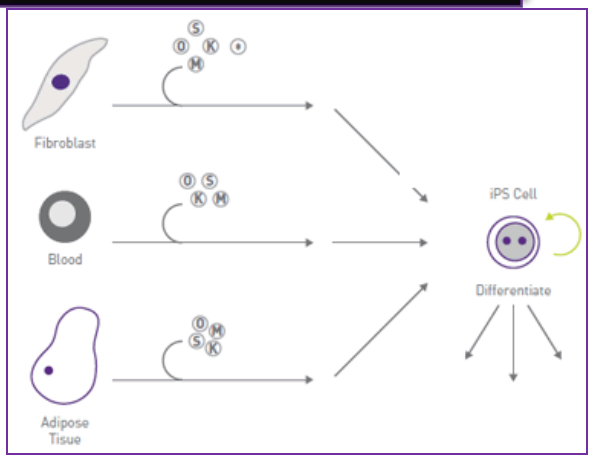
ProteinOne, LLC • 15601 Crabbs Branch Way • Rockville, MD 20855 • USA
Tel: 301.250.1011 • Fax: 301.738.0781 • info@proteinone.com • www.proteinone.com

REPROCELL

STEMGENT

Reprogramming the industry Solutions from STEMGENT

Since the pioneering work by Dr. Shinya Yamanaka describing the reprogramming of somatic cells to a pluripotent-like state, the induced pluripotent stem (iPS) cell has become an invaluable tool for strategies in regenerative medicine, disease modeling, drug discovery, and basic research in cell development. From traditional reprogramming methods (lentivirus, adenovirus) to non-integrating, non-viral technologies (mRNA, proteins), Stemgent provides the quality, knowledge, and expertise you depend on.



Choosing a reprogramming system ?? – visit ;
https://www.stemgent.com/applications/reprogramming

TiterMax®
A SMARTER CHOICE IN THE LONG RUN

RESEARCH IS OFTEN LIKE NAVIGATING A MAZE. FULL OF TWISTS AND TURNS, OBSTACLES TO OVERCOME, DEAD-ENDS TO AVOID.

THERE ARE NO EASY SHORTCUTS.

THANKS TO* TiterMax® *UNIQUE ADJUVANTS, REACHING YOUR ULTIMATE GOAL

- MOVING FROM THE MAZE OF RESEARCH TO THE CLINICAL STAGE -

IS NOW EASIER THAN EVER. Freund's Complete Adjuvant (FCA) has been used for over 50 years for producing antisera in animals. The severity of its toxicity was recognized immediately, but attempts to find a less toxic and equally effective alternative have not been successful. With advances in many areas of the biological sciences and increasing concern for the welfare of experimental animals, there was increased pressure to ban or restrict the use of FCA. In 1990, we introduced **TiterMax®,** which has the reliability and effectiveness of FCA without the toxic side effects.
The key to the potency of **TiterMax® Gold** lies in both the immunostimulatory activity of its new block copolymer, CRL-8300, and its ability to form a stable water-in-oil emulsion. **TiterMax® Gold** can be used with a wide variety of antigens which can be entrapped in a water-in-oil emulsion. Like **TiterMax® Classic**, **TiterMax® Gold** does not contain mineral oil, proteins, polysaccharides or other microbial products, thereby minimizing or eliminating the undesirable side effects caused by Freunds Complete Adjuvant. **TiterMax®Classic** can be purchase in 0.5, 1.0, 5.0, and 10.0 ml vials **TiterMax® Gold** can be purchased in 1.0, 3.0,5.0,10.0 and 20.0 ml vials - **Both** TiterMax® Classic and TiterMax® Gold **are available through:**

BIOScientific pty. ltd.
Service to Science since '72
1300 BIOSCI www.biosci.com.au

info@biosci.com.au