



Low Endotoxin *in vivo* Functional Grade Antibodies

Enabling Reproducible Science

“Custom size options, quality and value are why we continue to use Leinco over all others in the life science research industry.”

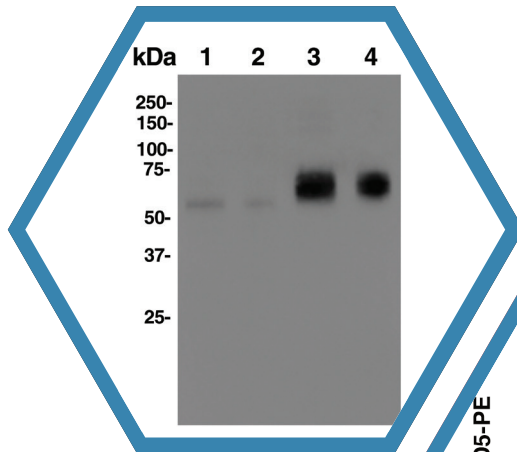
– Lab Manager at Washington University in St. Louis

Specializing in antibodies & proteins for mouse models, spatial biology, flow cytometry and more.

With their ability to activate, neutralize or block the activity of their antigen, these antibodies are powerful tools for elucidating the function of a specific protein as well as interrogating the physiological impact of disrupting the protein's normal function. Leinco antibodies are suitable for numerous areas of research, including:

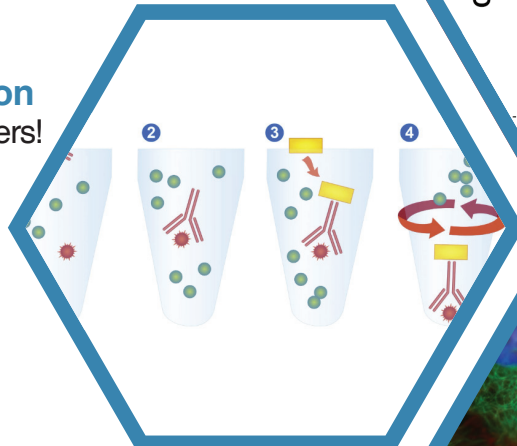
Western Blot

Expression levels of your targets!



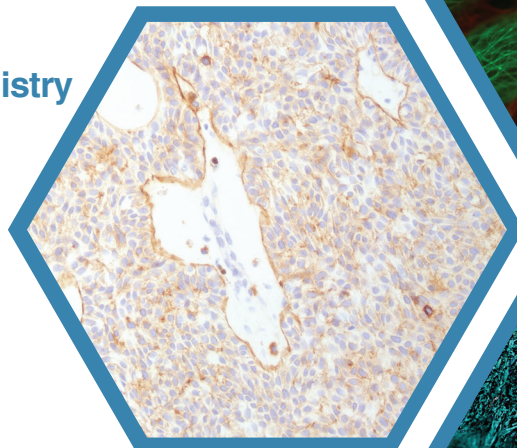
Immunoprecipitation

Discover binding partners!



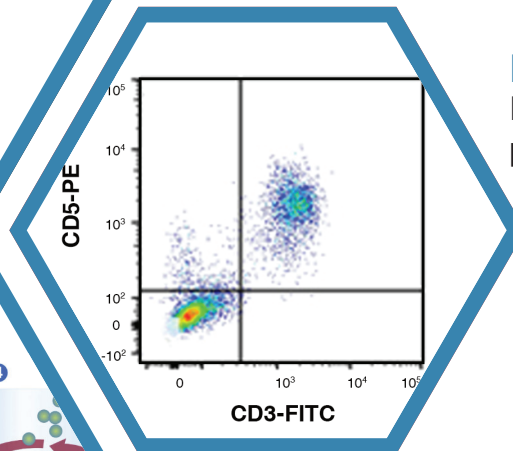
Immunohistochemistry

Expression of targets in tissues!



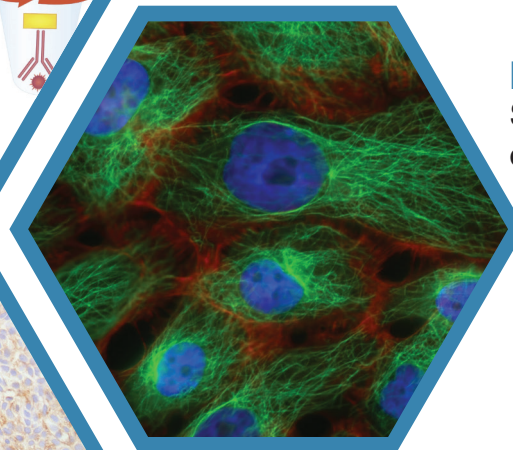
Flow Cytometry

Examine cellular population dynamics!



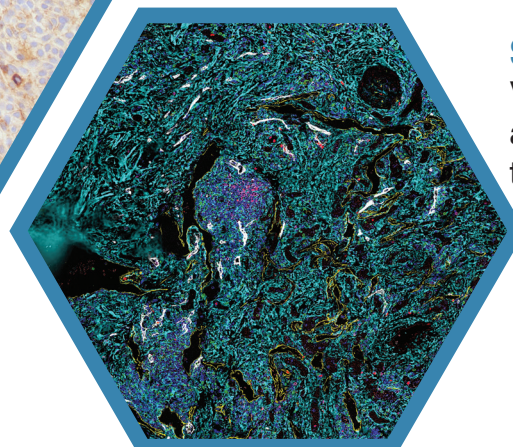
Immunofluorescence

Subcellular localization of targets!



Spatial Phenotyping

Visualize how cells interact and organize in a tissue landscape!



In vivo Functional Grade Antibodies

Generate superior and trusted data with *in vivo* grade functional antibodies from Leinco Technologies.

Leinco Technologies has developed an extensive technology tool box for the manufacturing of monoclonal antibodies for *in vitro* cellular based experiments or *in vivo* functional studies in animal models. Reproducibility of pre-clinical studies is paramount in driving research forward towards life-saving therapies and diagnostics. However, the scientific community is facing a “reproducibility crisis,” with 70% of respondents to a recent Nature survey* stating that they have been unable to repeat published results. A significant portion of the reproducibility problem is due to impurities and other variables between similar biological reagents and reference materials. Leinco Technologies aims to solve this problem by offering antibodies that meet the highest purity standards in the industry, with low endotoxin levels (<0.5EU/mg) and minimal aggregates ($\geq 98\%$ monomers as measured by analytical SEC) **enabling reproducible science and reliable data**. Produced in our cGMP and ISO-certified QMS system, these *in vivo* functional antibodies are amenable to a variety of research projects, from *in vitro* cellular studies to long-term *in vivo* animal studies. Each antibody is available in custom concentrations and package sizes. *In vivo* PLATINUM antibodies are also pathogen-free and tested by the IDEXX Impact I PCR mouse pathogen profile.

IDEXX IMPACT I (PCR-based) Mouse Pathogen Profile

Mycoplasma sp.	Mouse adenovirus 1 (MAV1)	Lactate dehydrogenase-elevating virus (LDEV)
Mycoplasma pulmonis	Mouse adenovirus 2 (MAV2)	Lymphocytic choriomeningitis virus (LCMV)
Sendai virus	Murine norovirus (MNV)	Hantaan Virus
Mouse hepatitis virus (MHV)	Reovirus 3 (REO3)	Mouse cytomegalovirus (mCMV)
Pneumonia virus of mice (PVM)	Mouse rotavirus (EDIM)	K virus
Minute virus of mice (MVM)	Ectromelia virus	Mouse thymic virus (MTV)
Mouse parvovirus (MPV)	Polyomavirus	Corynebacterium bovis
Theiler's murine encephalomyelitis (TMEV)	Mouse kidney parvovirus (MKPV)	Corynebacterium sp.



*M. Baker, Nat. News 533, 452 (2016). 2) T. Krishna, et al., <https://doi.org/10.1101/2020.08.07.239855>. 3) P. Attri, et al., Sci. Rep., 11, 1 (2021).

Lot-to-lot reproducibility enables reproducible science!

Antibody consistency is fundamental to reproducible science. Our lot-to-lot quality control (below) demonstrates the superior purity and reproducibility of our antibodies.

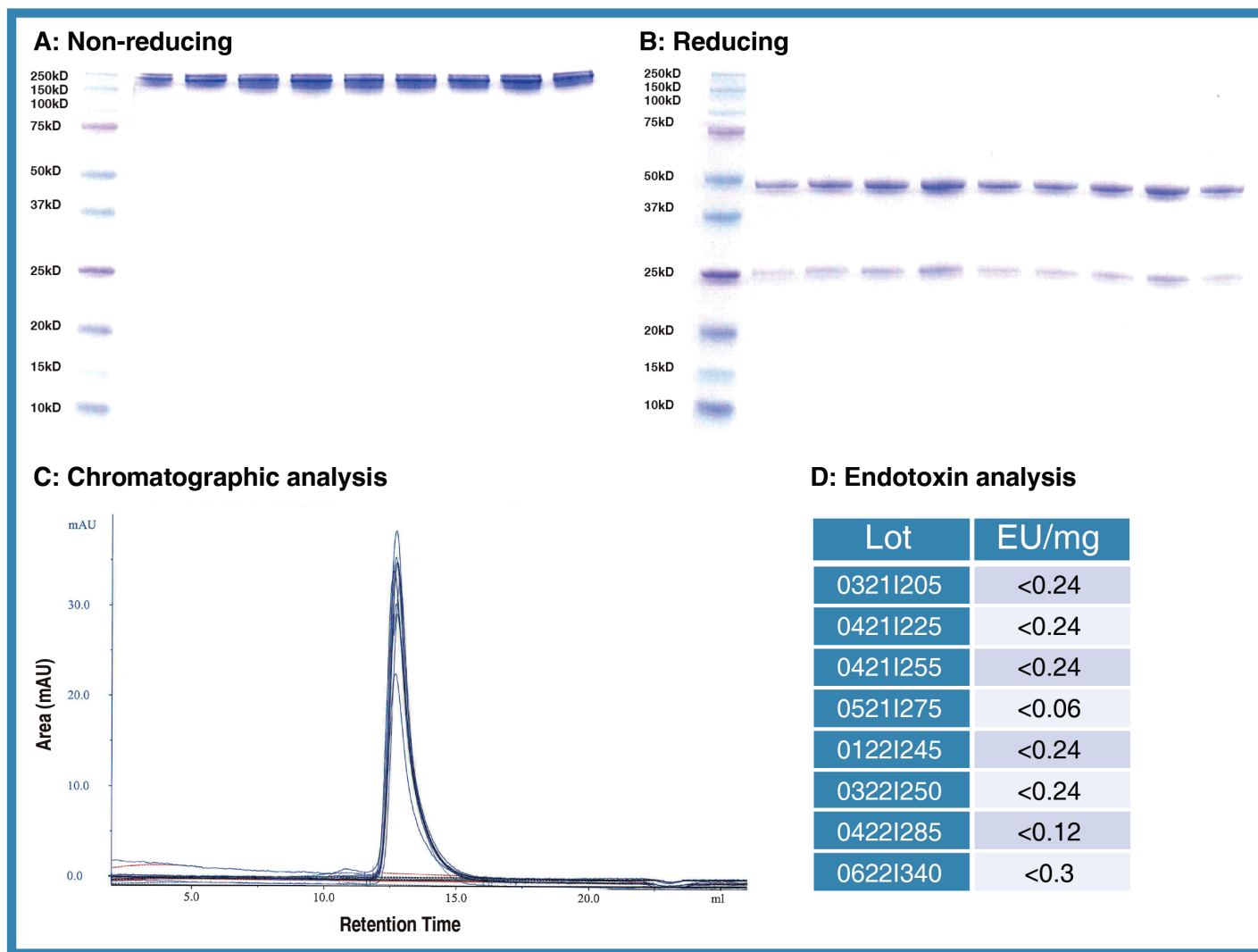


Figure 1. Quality control of *in vivo* antibodies: RMP1-14

In vivo antibodies from Leinco Technologies are subjected to extensive QC to ensure high reproducibility between lots. The example in Figure 1 shows the results for different lots of RMP1-14 antibody, directed against PD-1. The lots have consistently high purity as indicated by non-reducing and reducing SDS-PAGE (Fig. 1A and 1B, resp.). Analysis by size exclusion chromatography gave superimposing chromatograms for all nine lots, with overlapping retention times and minimal baseline noise (Fig. 1C). Endotoxin data for eight lots indicated that all lots were below the specification of ≤ 0.5 EU/mg as determined by the limulus amoebocyte lysate (LAL) method (Fig. 1D).

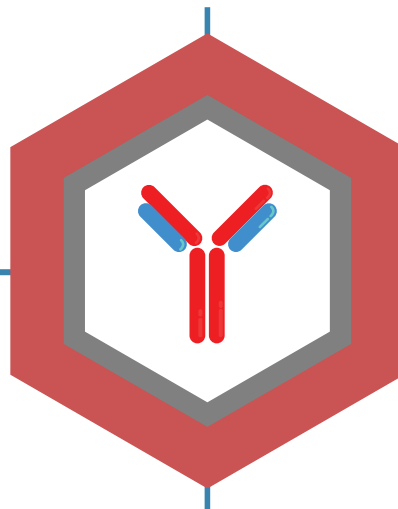
Pure and consistent antibodies avoid potential experimental pitfalls!

Minimizing antibody aggregates and reducing the risk for:

- Hypersensitivity or anaphylaxis
- Decreased biological activity
- Renal, heart and other organ failure
- Activation of receptors attempting to block
- Diminished overall efficacy of the antibody

Minimizing other impurities and reducing the risk for:

- Anaphylaxis
- False positives in immunoassays



“Ultra-ultra” low endotoxin level and minimizing the effects for:

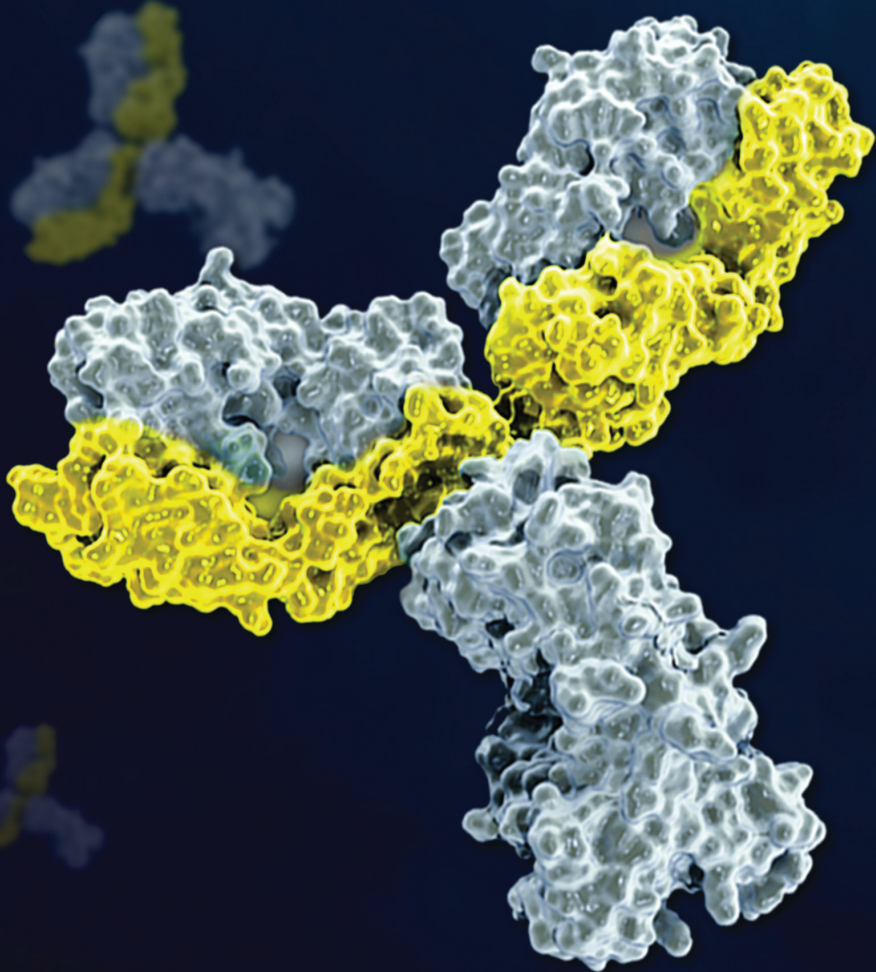
- Activation of immune cascades leading to inflammation and hypotension
- Metabolic acidosis

Exceeding customers’ needs

Our GOLD™ and PLATINUM™ *in vivo* functional antibodies are designed to exceed the stringent demands and rigorous standards required for experiments using cell culture and animal models.

Scan the QR code to learn more!





For scientists in life sciences discovery, and biopharmaceutical and diagnostics segments utilizing antibodies, biologically active proteins, and assays, reproducible science is the key to unlocking the scientific doors. Leinco Technologies Inc. adheres to ISO 9001:2015 and ISO 13485:2016 quality standards, and provides access to antibodies and proteins used in a broad range of life sciences applications uncovering interactions in cancer, infectious diseases and immunology. Our proprietary techniques result in the highest purity antibodies (monoclonal, recombinant and polyclonal) and proteins enabling scientists globally to generate reproducible science and faster time to scientific results across a broad range of cell, tissue and *in vivo* applications (e.g. spatial biology, flow cytometry, pre-clinical *in vivo* and *in vitro* studies). For our many partners, the Leinco scientists with over 30 years' experience take a consultative approach and are committed to delivering the highest quality CDMO services (e.g. antibody scale-up and purification, optimized conjugation to reporter molecules and assay development/manufacturing) that save time and ensure our customers are successful in their programs.

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