Collaborating with AdipoGen® LIFE SCIENCES

Endotoxin-free Buffers

For Preclinical & Basic Research

In basic and preclinical research, reproducibility and clarity constitute the foundation of credible scientific inquiry. Nevertheless, undetected contaminants such as endotoxins can compromise cell-based assays and immune responses, frequently without any overt indications.

Innaxon's Endotoxin-free Research Buffers are formulated to meet the stringent requirements of sensitive biological experiments. With certified endotoxin concentrations below 0.02 EU/mL and validated through comprehensive quality control procedures, these buffers ensure exceptionally low background interference across a broad spectrum of applications, including molecular cloning, protein purification, cell culture and cytokine assays.

Innaxon's Endotoxin-free Preclinical & Research Buffers facilitate unbiased dilution of drug candidates and enable reproducible outcomes in highly sensitive biological assays, immunological investigations and clinical research studies. Researchers can rely on Innaxon's buffer systems to preserve the integrity of experimental conditions and ensure uncompromised data quality.

Innaxon is a recognized leader in the field of lipopolysaccharide (LPS) reference materials, offering an extensive portfolio of ready-to-use products that are sterile, potent and functionally tested for immune-reactive contaminants. These products are specifically validated for use in physiologically relevant and highly sensitive TLR4-dependent quality control and quality assurance (QC/QA) assays. This expertise positions Innaxon as an ideal provider of endotoxin-free, sterile reagents for advanced research and development needs.

For a Complete List of Endotoxin-free Buffers see Backcover

Endotoxin (ET) Facts:

- **Potency and Biological Impact:** Endotoxins are among the most potent agents known to trigger inflammatory and immune-stimulatory responses. They are particularly impactful in human cell culture systems and *in vivo* studies, with activity detectable at sub-nanogram per millilitre concentrations.
- **Stability and Removal Challenges:** Endotoxins are highly resilient, typically requiring prolonged exposure to temperatures > 200°C for effective destruction. Their removal is especially challenging at low concentrations, such as below 10 EU/mL (equivalent to 1 ng/mL of standard endotoxin reference material).
- **Detection Limitations:** Endotoxins can be masked – a phenomenon known as Low Endotoxin Recovery (LER) – rendering them undetectable by conventional Bacterial Endotoxin Tests (BET), including LAL-based assays. Therefore, additional functional assessments using relevant, untransformed and highly sensitive human responder systems are strongly recommended.
- **Limitations of Overexpressing Cell Lines:** The use of TLR4-overexpressing cell lines (e.g., HEK293 in combination with reporter plasmids) can amplify responses only at high endotoxin levels, making them less sensitive to lower, yet biologically significant, concentrations.
- **Innaxon's Endotoxin-free Solutions:** Innaxon's endotoxin-free reagents are stringently controlled, with endotoxin levels below 0.02 EU/mL (0.00002 EU/mg) at working concentrations and below 0.2 EU/mL (0.0002 EU/mg) in stock solutions. Each batch is tested for endotoxin recovery to ensure accuracy and to safeguard against potential bacterial endotoxin test (BET) assay interference.

Innaxon's unique, diverse and comprehensive in-house LPS library (TLRpure™) secures reproducibility and standardization of the pre-analytical dilution procedure of endotoxin-free reagents and is combined with physiologically and functionally relevant in vitro assay systems.

Endotoxin-free Buffers From Innaxon

PRODUCT NAME	PID
PBS Endotoxin-free (sterile)	IAX-900-001
PBS Endotoxin-free (sterile) [For Nano-formulated Drug Analysis]	IAX-900-001DC
ddWater Endotoxin-free (sterile)	IAX-900-002
ddWater Endotoxin-free (sterile) [For Nano-formulated Drug Analysis]	IAX-900-002DC
Physiological Saline [Sodium Chloride 0.9%] Endotoxin-free Sterile Solution	IAX-900-003
Physiological Saline [Sodium Chloride 0.9%] Endotoxin-free (sterile) [For Nano-formulated Drug Analysis]	IAX-900-003DC
PBS with EDTA Endotoxin-free (sterile)	IAX-900-004
TRIS with EDTA [TE Buffer] (100x) Endotoxin-free (sterile)	IAX-900-005
EDTA (400mM) Endotoxin-free (sterile)	IAX-900-006
HEPES Buffer (500mM) Endotoxin-free (sterile)	IAX-900-007
DNA Loading Buffer with TRIS and EDTA (6x) (Blue)	IAX-900-008
HEPES Buffer (50mM) with NaCl [Sodium Chloride] (150mM) Endotoxin-free (sterile)	IAX-900-009
NaCl [Sodium Chloride] (1.5M) Endotoxin-free (sterile)	IAX-900-010
TRIS Buffer (1.5M) Endotoxin-free (sterile)	IAX-900-011
TRIS Buffer (30mM) with NaCl [Sodium Chloride] (150mM) Endotoxin-free (sterile)	IAX-900-012
PBS with Magnesium and Calcium Endotoxin-free (sterile)	IAX-900-013
ddWater with 0.9% Benzyl Alcohol [Bacteriostatic Water] Endotoxin-free (sterile)	IAX-900-014

AdipoGen® LIFE SCIENCES

www.adipogen.com

EUROPE/REST OF WORLD
AdipoGen Life Sciences
TEL +41-61-926-60-40
FAX +41-61-926-60-49
info@adipogen.com

NORTH & SOUTH AMERICA
Adipogen Corp.
TEL +1-858-457-8383
FAX +1-858-457-8484
info-us@adipogen.com

For local distributors please visit our website.