

*Our Research & Biotech team are committed to bringing you the latest innovations and best prices in antibodies, molecular biology, and cell culture. Discover the latest products and promotions from our Channel Partners monthly here and on our website.*



## Upcoming Webinar on March 5th

### Exploring Methodologies for Spatial Biology, from IF to IHC to multiplex IHC with SignalStar® Technology

Multiplex spatial biology enables the simultaneous detection of multiple protein targets, revealing cellular dynamics within their native spatial context and leading to a more comprehensive understanding of complex biological processes and systems.

In this seminar, we will provide a comprehensive overview of the basic immunodetection techniques necessary for spatial biology, namely Immunohistochemistry (IHC) and Immunofluorescence (IF).

You will learn how to leverage these techniques, building toward advanced spatial biology applications. Two distinct multiplex solutions will be presented:

- For low-plex Immunofluorescence (IF-F) panel design. We will introduce chimeric antibodies that overcome common challenges in host-species compatibility.
- Multiplex IHC with SignalStar Technology: This technology allows you to multiplex up to eight protein targets in precious FFPE samples. We will explain how low-abundance targets can be detected with SignalStar Technology with its unique signal amplification. This validated product includes an optimized protocol, enabling researchers to generate high-quality results in only two days using standard fluorescent microscopy equipment.

Presented by: Flora Guarnotta, MSc Field Application Specialist at CST

## New Product This Month

### NG2/CSPG4 (F8X3M) Rabbit Monoclonal Antibody #54851

NG2 is a transmembrane chondroitin sulfate proteoglycan present on the cell surface. It promotes cell proliferation, migration, and metastasis through phosphorylation by PKC $\alpha$  and ERK. It is also expressed in vascular pericytes to regulate angiogenesis, and in the nervous system, it is involved in myelin repair as a marker of oligodendrocyte precursor cells. It is highly expressed in intractable cancers such as melanoma, glioblastoma, and triple-negative breast cancer, and is associated with treatment resistance and metastasis. Taking advantage of its unique expression pattern, NG2 is currently being clinically applied as a promising target for cancer immunotherapy, such as CAR-T cell therapy. #54851 is suitable for WB, IP, IF-F, IF-IC, FC-FP, and FC-L analysis using human, mouse, and rat samples.



## New Products This Month

### NEBNext UltraShear® Long Read

Fragmenting genomic DNA (gDNA) is key to improving long-read sequencing performance and data yield. NEBNext UltraShear® Long Read is a fast, flexible enzymatic method for gDNA fragmentation, designed for use upstream of Oxford Nanopore Technologies® (ONT) and PacBio® library preparation and sequencing. This time-tunable solution allows precise fragment sizing from 2 kb to 30 kb in as little as 30 minutes, while preserving native methylation marks. It works with a broad input range (250 ng–5 µg) and is compatible with automation, making it easy to scale as sequencing needs grow. NEBNext UltraShear Long Read provides a cost-effective and reliable alternative to mechanical shearing methods.

### Monarch® Mag Cell-free DNA (cfDNA) Extraction Kit

For Research Use Only. Not for use in diagnostic procedures.

- Magnetic bead-based extraction for efficient and reproducible isolation of circulating cell-free DNA (cfDNA) from biofluids.
- Recover cell-free DNA in the typical size range (150-300 bp), and as low as 50 bp.
- Obtain consistent results for sample types with challenging biological variability.
- Available in 20-prep or 100-prep formats for 2 ml samples and scalable to accommodate 1-4 ml sample inputs.
- Elute in low elution volumes without the need for additional concentration steps that lead to yield loss.
- Achieve streamlined sample-to-result workflows by integrating with NEB's sequencing and amplification solutions.

### Supercoiled Extend DNA Ladder

Supercoiled Extend DNA Ladder enables accurate sizing of a wide range of supercoiled DNA, including supercoiled plasmids up to 15 kb, and has a convenient reference band at 6 kb.

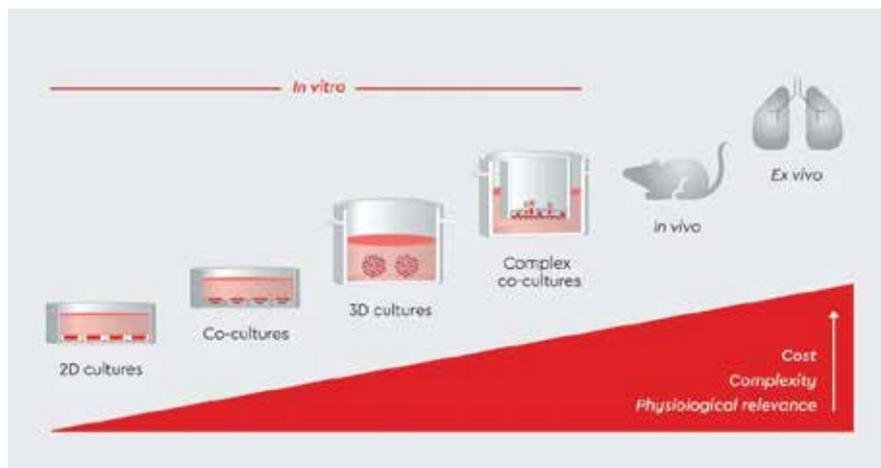
- Supercoiled DNA molecular weight marker
- Size range: 2 to 15 kb
- Convenient reference band at 6 kb
- Supplied with a vial of Gel Loading Dye, Purple (6X), no SDS (NEB #B7025)
- Suitable for 100 gel lanes

# PromoCell

## Recent Blog

### Air-liquid interface culture: Building physiologically relevant airway models

Traditional cell culture systems often fall short of replicating the complex environment of the human airway, limiting their predictive power in respiratory research. To address these limitations, researchers increasingly rely on physiologically relevant in vitro models that better reflect human airway biology. Among these, air-liquid interface (ALI) culture bridges the gap between simple two-dimensional systems and complex animal models, offering a human-based approach for studying respiratory function and disease in vitro.



Progression of in vitro cell culture models from basic 2D monolayers to physiologically relevant systems.

Air-liquid interface (ALI) cultures bridge the gap between simple in vitro systems and physiologically relevant models. They recreate the native airway environment where cells are exposed to air on the apical surface and culture medium on the basolateral side.

**Read the full blog**

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