

# STEMmES™ Whole ES Cell Lysates

Purified Mouse ES Cell gDNA, RNA & Protein



**SC Proven®** Products undergo rigorous quality control procedures before release. The SC Proven stamp is your assurance that every product bearing our trademark meets impeccable quality standards.

## Product Information

### STEMmES-D™

Description: Purified Mouse ES Cell gDNA  
Catalog Number: CL-ME01-005  
Size: 5µg

### STEMmES-R™

Description: Purified Mouse ES Cell RNA  
Catalog Number: CL-ME02-010  
Size: 10µg

### STEMmES-P™

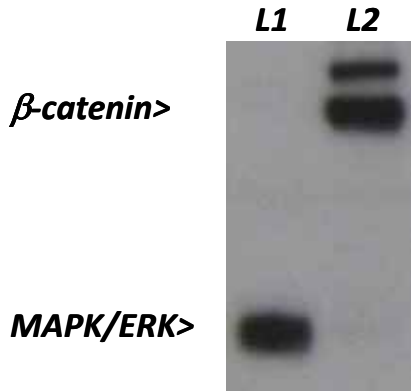
Description: Purified Mouse ES Cell Protein  
Catalog Number: CL-ME03-020  
Size: 20µg

### STEMmES-Triplet™

Description: Kit containing 1 each of STEMmES-D, -R, -P  
Catalog Number: CL-ME04

## Description and Applications

STEMmES comprises a family of purified genomic DNA (gDNA), RNA and protein reagents from the lysate of a single E14Tg2a mouse embryonic stem (ES) cell culture sample that has been cultured in proprietary SC Proven '2i' inhibitor-based GS2-M™ media<sup>1-3</sup>. GS2-M media maintains ES cells in a true pluripotent 'ground state'<sup>4</sup>.



Western blot of FBS/LIF (L1) or GS2-M (L2) propagated mouse E14Tg2a ES cell protein fractions probed with both MAPK/ERK and  $\beta$ -catenin phospho-specific antibodies

The purified gDNA averages between 15-30 kilobases in size, and is suitable for applications such as:

- PCR and qualitative real time RT-PCR
- Southern blot analyses
- Comparative Genome Hybridization (CGH)
- Epigenetic, Genotyping and SNP analyses

## To Order...

Please visit:

**[www.scproven.com](http://www.scproven.com)**

For more information,  
contact us at:

**+44 (0) 1223 499161**

# STEMmES™ Whole ES Cell Lysates

Purified Mouse ES Cell gDNA, RNA & Protein



## Description and Applications, cont.

Purified RNA molecules of greater than 200bp are suitable for applications such as:

- RT-PCR and qualitative RT-PCR
- Poly A<sup>+</sup> selection and cDNA synthesis
- Northern blot analyses
- Micro-arrays

The purified cellular protein is suitable for:

- 1D and 2D SDS-PAGE and Western blotting under either native or denaturing conditions

## Preparation and Storage

These reagents are derived from the lysate of a homogenous stem cell population by sequential affinity chromatography. The reagents are supplied in the following buffers:

- gDNA in 10 mM Tris.Cl, 1mM EDTA (pH 8.5). Store at -20°C.
- RNA in DNase and RNase free H<sub>2</sub>O with an RNase inhibitor added. Store at -20°C.
- Protein in Laemmli-based buffer, **without** denaturant and **not** heated; samples can either be run under native SDS-PAGE, or denaturing SDS-PAGE conditions by adding DTT or β-mercaptoethanol and heating. Store at -20°C.

**Note: Multiple freeze-thawing of all purified lysates should be avoided.**

*For research use only.* Not for use in humans or in diagnostic or therapeutic procedures. Not for resale.

## References

- 1 Ying QL, *et al.* The ground state of embryonic stem cell self-renewal. *Nature* (2008) 453(7194):519-23
- 2 Buehr M, *et al.* Capture of Authentic Embryonic Stem Cells from Rat Blastocysts. *Cell* (2008) 135(7):1287-98
- 3 Li P, *et al.* Germline Competent Embryonic Stem Cells Derived from Rat Blastocysts. *Cell* (2008) 135(7):1299-310
- 4 Wray J, *et al.* The ground state of pluripotency. *Biochem Soc Trans.* (2010) 38(4):1027-325

## To Order...

Please visit:

**[www.scproven.com](http://www.scproven.com)**

For more information, contact us at:

**+44 (0) 1223 499161**

**STEMCELLS** Groundbreaking **science.** Breakthrough **medicine.**™

© 2011 StemCells, Inc. All rights reserved. SC Proven, STEMmES and GS2-M are trademarks of StemCells, Inc. All other trademarks are property of their respective owners.

**StemCells, Inc.**

**[www.stemcellsinc.com](http://www.stemcellsinc.com)**

**USA**

3155 Porter Drive  
Palo Alto, CA 94304 USA

**EUROPE**

Minerva Building 250  
Babraham Research Campus  
Cambridge CB22 3AT, UK  
T +44 (0) 1223 499161