**Description and Applications:**

STEMmFNS comprises a family of genomic DNA (gDNA), RNA and protein reagents from a single cell culture lysate of a mouse (strain MF1) fetal hind brain-derived neural stem (Hind NS) cell line. Cultured in SC Proven® proprietary RHB-A® media supplemented with EGF and bFGF, this NS cell line is maintained as a homogenous (>99%) layer of adherent cells without loss of neurogenic capacity\(^1\) - \(^3\).

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

- PCR and qPCR
- Southern blot analyses
- Comparative Genome Hybridization (CGH)
- Epigenetic, Genotyping and SNP analyses

Microscope bright field and immunocytochemistry images of mouse NS cells propagated in RHB-A plus EGF and bFGF.
Description and Applications, cont.

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

- RT-PCR and RT-qPCR
- Poly A+ selection and cDNA synthesis
- Northern blot analyses
- Microarrays

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, 1 mM EDTA (pH 8.5). Store at -20°C.
- RNA in DNase and RNase free H2O 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.

References: