



Mouse Neural Stem Cell Expansion Protein Bundle

Catalog Number: PB-500-18

Protein Bundle Includes:

Mouse EGF (Catalog 200-53)	100 ug vial
Mouse FGF-basic (Catalog 200-12)	100 ug vial

Bundle Description:

Neural Stem Cells (NSC or NS cells) are self-renewing cells, of the neural lineage, capable of generating neurons (GABA, dopamine and motor neurons), astrocytes and oligodendrocytes. NSCs are marked by expression of Nestin and can be derived from fetal neural stem cells, adult neural stem cells, embryonic stem cells and adult somatic cells. NSCs are typically expanded and maintained in 2D monolayers or neurosphere cultures containing recombinant EGF and FGF-basic (also called FGF-2 or bFGF) at concentrations between 10-20 ng/mL each. To differentiate NSCs to more specific cell types, the EGF and FGF-basic containing media is often replaced with media containing various cocktails of BDNF, SHH, FGF-8, CNTF, LIF, BMP-4, NT-3, NT-4, PDGFs and other cytokines. In addition to primary cultures, EGF and FGF-basic are used to culture immortalized C17-2 cells.

Notes: Dependent on user formulation, there is approximately enough EGF and FGF-basic to make 5 L to 10 L of media. Specific concentrations of each chemokine are determined by the end user based on their application and culture conditions.

References:

- Abranches, E. et al. (2009) PLoS ONE 4(7):e6286.
- Ciccolini, F. et al. (1998) J Neuroscience. 18(19):7869.
- Conti, L. et al. (2005) PLoS Biol 3(9):e283.
- Kitchens DL. et al. (1994) J Neurobiol. 25(7):797.
- Zhang, S. et al. (2001) Nature Biotech. 19:1129.

THIS PRODUCT IS FOR RESEARCH USES ONLY AND IS NOT FOR USE IN HUMANS!