



Human Hematopoietic Progenitor Cell Expansion Protein Bundle

Catalog Number: PB-500-07

Protein Bundle Includes:

Human SCF (100-04)	10 ug vial
Human FLT-3 Ligand (Catalog 100-21)	10 ug vial
Human IL-6 (Catalog 100-10)	20 ug vial
Human IL-3 (Catalog 100-80)	10 ug vial

Bundle Description:

Hematopoietic stem cells are self renewing pluripotent cells often characterized by the expression of CD34. Studies have shown that decreased expression of CD34 tends to correlate with decreased self renewal properties and pluripotent potential. Culturing CD34+ cells in a cytokine mixture of SCF, FLT-3 Ligand, IL-6 and IL-3 for short time periods (2-7 days) allows rapid expansion of immature and more mature hematopoietic progenitor cells in cord blood or bone marrow preparations. If the goal is to only expand the most immature progenitor and stem cells, it is recommended that a combination of TPO, SCF and FLT-3 Ligand are used (Catalog: PB-500-03). Either cytokine combination can also be supplemented with other cytokines to promote specific lineages. For example, GM-CSF (Catalog 100-08) and/or G-CSF (Catalog 100-172) can be added to promote monocytes and granulocytes while EPO can be added to promote erythroid cells.

Notes: Dependent on user formulation, there is approximately enough SCF, FLT-3 Ligand, IL-3 and IL-6 to make 200 mL of expansion media. Specific concentrations of each chemokine are determined by the end user based on their application and culture conditions.

References:

- Kishimoto, S. et al. (2011) J. Tissue Eng. Online
- Stec, M. et al. (2007) J. Leuk. Biol. 82:594.
- Encabo, A. et al. (2004) Stem Cells 22:725-740.
- Shaw, PH. Et al. (2001) J. Hematother. Stem Cell Res. 10(3):391-403.

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