

PRIME-XV AFSC Expansion Medium

Complete medium that maintains pluripotency of AFSCs in extended culture

Stem cells obtained from the amniotic fluid have recently become an interesting alternate source of pluripotent stem cells for therapeutic applications. Similar to embryonic stem cells, amniotic fluid stem cells (AFSCs) are clonogenic and have the capacity to differentiate into cells of the endoderm, mesoderm and ectoderm lineages. These cells are characterized by their positive expression of Oct4-A, SOX2, and NANOG. PRIME-XV AFSC Expansion Medium is the first commercially available medium specifically designed to expand this small subset of cells in the amniotic fluid.

- Supports robust expansion of human amniotic fluid stem cells (AFSCs)
- Maintain pluripotent characteristic of human AFSCs in extended culture
- Manufactured under cGMP conditions
- Complete, ready-to-use medium

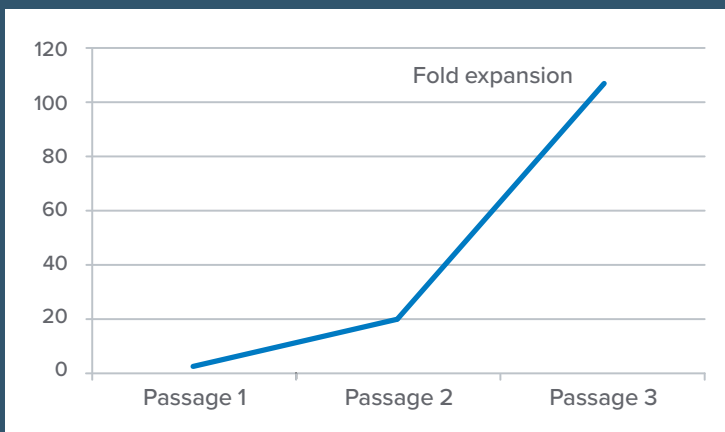


Figure 1. Human AFSCs grown in PRIME-XV AFSC Expansion Medium over three passages. Fold expansion was calculated as the ratio of final viable cell count by the initial seeded viable cell count at passage 1.

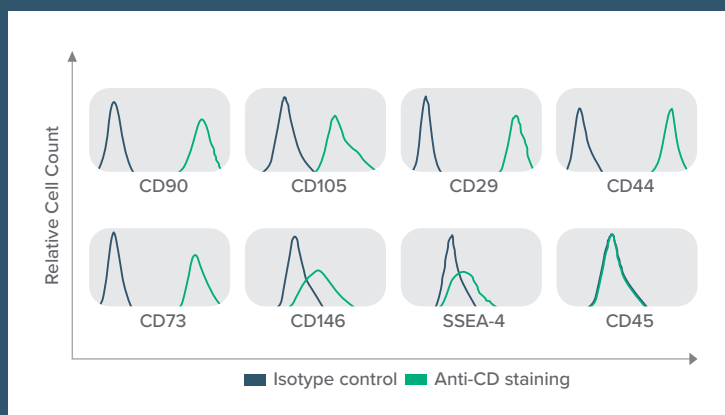


Figure 2. Flow cytometry analysis of human AFSCs after five passages of culture in PRIME-XV AFSC Expansion Medium showed positive stainings for typical mesenchymal markers (CD90, CD105, CD29, CD44, CD73, CD146), and stage-specific embryonic antigen 4 (SSEA-4), but negative for the hematopoietic marker (CD45).

Maintains desired marker expression

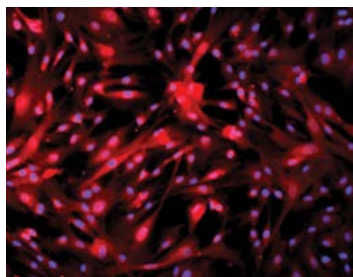


Fig. 3: NANOG

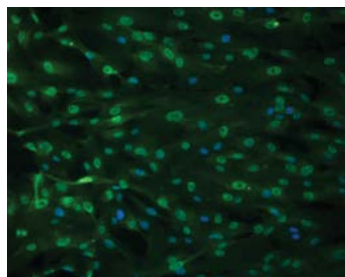


Fig. 4: OCT-4A

Figure 3. Immunofluorescence analysis of human AFSCs cultured in PRIME-XV AFSC Expansion Medium after six passages showed positive NANOG staining. Nuclei were counterstained with DAPI (blue).

Figure 4. Immunofluorescence analysis of human AFSCs cultured in PRIME-XV AFSC Expansion Medium after six passages showed positive OCT-4A staining. Nuclei were counterstained with DAPI (blue).

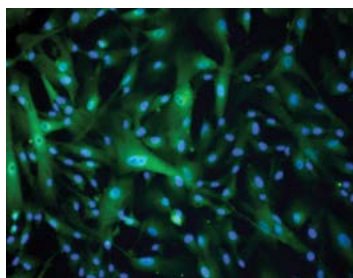


Fig. 5: SOX2

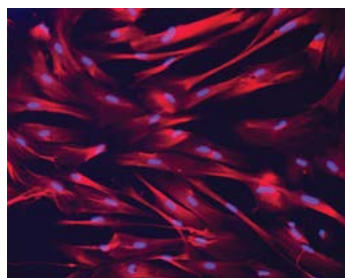


Fig. 6: OSTEOCALCIN

Figure 5. Immunofluorescence analysis of human AFSCs cultured in PRIME-XV AFSC Expansion Medium after six passages showed positive SOX2 staining. Nuclei were counterstained with DAPI (blue).

Figure 6. Human AFSCs cultured in PRIME-XV AFSC Expansion Medium for six passages maintained osteogenic differentiation potential. Immunocytochemistry results showed positive osteocalcin (red) staining after 20 days of differentiation. Nuclei were counterstained with DAPI (blue).

Ordering Information

Media	Catalog #	Size*	Additional Information
PRIME-XV AFSC Expansion Medium	91133	250 mL	Contains phenol red and animal-derived components
PRIME-XV Osteogenic Differentiation SFM	91132	100 mL	Serum-free

Related Products

Item	Catalog #	Size*	Additional Information
PRIME-XV FreezIS	91139	100 mL 10 mL	Chemically-defined, free from animal components and proteins. Contains 10% DMSO.
PBS 1X-Dulbecco's	9240	100 mL 500 mL 1 L	Does not contain calcium, magnesium, phenol red, or sodium bicarbonate
Trypsin EDTA 1X Solution in HBSS	9341	100 mL 500 mL	Contains phenol red. Does not contain calcium, magnesium or sodium bicarbonate.

*Custom sizes and packaging available on request.

