



**Fibroblast Medium-serum free  
(FM-sf)**  
Catalog #2311

**Product Description**

Fibroblast Medium-serum free (FM-sf), when used with Fibroblast Growth Supplement-serum free (FGS-sf, Cat #2362), is a complete medium designed for optimal growth of normal fibroblasts *in vitro*. It is a sterile, liquid medium which contains essential and non-essential amino acids, vitamins, organic and inorganic compounds, hormones, growth factors and trace minerals. The medium is HEPES and bicarbonate buffered and has a pH of 7.4 when equilibrated in an incubator with an atmosphere of 5% CO<sub>2</sub>/95% air. The medium is formulated (quantitatively and qualitatively) to provide an optimally balanced nutritional environment that selectively supports the growth of normal fibroblasts *in vitro*.

**Components**

FM-sf consists of 500 ml of basal medium, 5 ml of Fibroblast Growth Supplement-serum free (FGS-sf, Cat. #2362) and 5 ml of penicillin/streptomycin solution (P/S, Cat. #0503). *Note: FGS-sf and P/S are not pre-mixed in FM-sf; they must be added separately to make the complete FM-sf.*

**Product Use**

FM-sf is for research use only. It is not approved for human or animal use, or for application in *in vitro* diagnostic procedures.

**Storage**

Store the basal medium at 4°C and the FGS-sf and P/S solution at -20°C. Protect from light.

**Shipping**

Basal medium: room temperature. Supplements: dry ice.

**Instructions for Use**

Thaw FGS-sf and P/S solution at 37°C. Gently tilt the tubes several times to ensure complete mixing. Spray the medium bottle and tubes with 70% ethanol, and wipe to remove excess liquid. In a sterile field, remove the caps without touching the interior threads with fingers. Add FGS-sf and P/S to the medium and mix well. Since several components are light-labile, the medium should not be exposed to light for extended periods. We do not recommend warming medium in a 37°C water bath prior to use. When stored in the dark at 4°C, the reconstituted medium is stable for one month.

*Caution: If handled improperly, some components of the medium may present a health hazard. Take appropriate precautions when handling it, including the wearing of protective clothing and eyewear. Dispose of properly.*