

Exosome-Free FBS

E778169

Storage: -20°C. Avoid freeze/thaw cycle.

Introduction:

For most cells, the standard medium used for in vitro culture must be supplemented with fetal bovine serum (FBS) as a growth additive on the basis of the basal medium. However, commonly used FBS is usually derived from bovine serum, which contains a large number of bovine exosomes, exogenous extracellular vesicles, etc. The exosomes contained in the serum can cause significant interference to the results of exosome research.

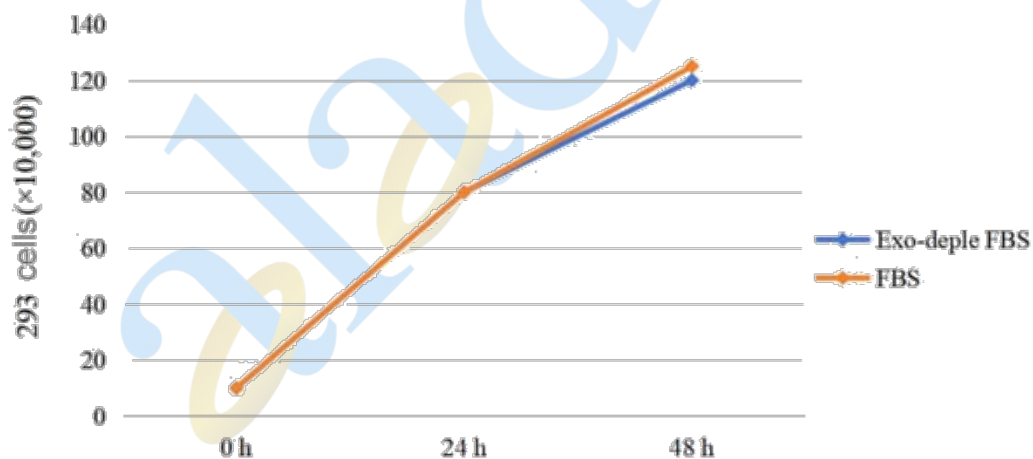
To solve the above problems, Aladdin has launched Exosome-Free Fetal Bovine Serum, which can fully meet the requirements for cell culture conditions in exosome research. Using high-quality fetal bovine serum as the source serum, after treatment with specific methods, the removal rate of endogenous exosomes in fetal bovine serum reaches more than 97%; compared with the medium containing normal source serum (FBS), it has an equal or even better promoting effect on cell growth and survival.

Product Features:

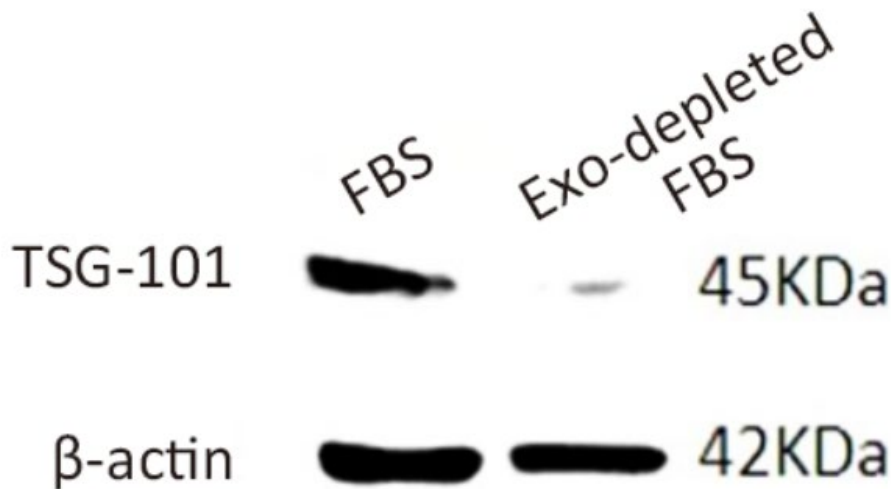
Excellent Quality: Derived from high-quality fetal bovine serum, with a removal rate of endogenous exosomes in fetal bovine serum reaching over 97%.

Stable Quality: Strict quality control ensures batch-to-batch stability of the product.

Product Data:



The growth status of 293 cells in regular fetal bovine serum and exosome-depleted serum is basically the same.



With β -actin as the internal reference, the content of TSG101 in exosome-depleted serum is significantly lower than that in untreated serum.

Operating Procedures:

1. Take the product out of the -20°C or -80°C freezing environment and place it in a 4°C refrigerator to thaw for 1 day.
2. Repeated experiments have verified that using 10% exosome-free serum to culture 293T cells yields excellent results. For some cells, 5% or 20% exosome-free serum may also be used. The appropriate concentration of exosome-free serum can be selected according to the specific cell type.
3. It is recommended that when replacing with exosome-free serum, gradually transition to complete replacement at a ratio of 1:1 to 1:4. For example, to prepare 10 mL of complete medium, first add 5 mL of the old complete medium and 5 mL of the complete medium prepared with exosome-free serum. Then gradually switch to 2 mL of the old complete medium and 8 mL of the complete medium prepared with exosome-free serum, until completely replacing with the complete medium prepared with exosome-free serum.

Notes and Disclaimer:

1. If the product cannot be used up in a short period of time, please aliquot it appropriately after thawing. When aliquoting the serum, a certain volume of space must be reserved in the aliquot containers; otherwise, the containers may crack due to freezing, leading to contamination.
2. Bottled serum should be thawed slowly: Place the serum stored in a -20°C or -80°C refrigerator into a 4°C refrigerator to thaw for approximately 1 day, and aliquot it after complete thawing. During the thawing process, gently shake the serum evenly every 2 hours or so (try to avoid generating bubbles) to ensure uniform temperature and composition, and reduce the occurrence of precipitation. Do not directly thaw the serum from -20°C or lower temperatures in a 37°C water bath, as such a drastic temperature

change may cause protein aggregation and precipitation, thereby reducing the quality of the serum.

3. The flocculent precipitates in the serum are mainly caused by fibrin in the thawed serum and lipoprotein denaturation in the serum after long-term storage at 4°C. The flocculates do not affect the quality of the serum itself and can be left untreated. If treatment is necessary, centrifuge at 400g for 5 minutes to remove them. However, filtration is not recommended for removal, as the flocculates may clog the filter membrane.
4. Do not leave the serum at 37°C for an extended period, as the serum will gradually become turbid, and the active ingredients in the serum will gradually inactivate, affecting its quality.
5. The cell growth adaptation issues that occur when switching to serum from different sources or batches are not related to the quality of the serum. For serum from a new source or batch, cells usually recover normal growth after adapting for 1-2 generations.
6. For your safety and health, please wear a lab coat and disposable gloves during operation.
7. This product is intended solely for scientific research by professionals and shall not be used for clinical diagnosis or treatment, nor for food or pharmaceutical purposes.