NEUROMICS

GPCR HEK293 Growth Media

Catalog #: GPCRM002 **Product Size:** 500 ml

Storage: 2-8°C for 6 months **Shipping:** Polar packs

GENERAL INFORMATION

GPCR (G-Protein Coupled Receptor) HEK293 growth media is a specialized culture environment meticulously engineered to support the growth, maintenance, and functional expression of HEK293 cells that produce G-Protein Coupled Receptors. These receptors represent a significant and diverse family of cell surface proteins that are integral to various biological processes through their role in signal transduction, making them prime targets for a wide range of therapeutic interventions. Crafting growth media for these cells demands a deep understanding of cellular biology and specific requirements to promote optimal health, robust receptor expression, and functional viability.

Note: When culturing HEK293 cells that express GPCRs (G-Protein Coupled Receptors), the growth media must be carefully optimized to ensure high cell viability, robust receptor expression, and proper functionality of the GPCRs. HEK293 cells are a popular choice for GPCR studies due to their high transfection efficiency and ability to express recombinant proteins.

Product is for Research use only.

STORAGE AND USE

The medium is stored at 2-8°C. A change in color or appearance of precipitate may indicate deterioration. The product is stable for 6 months from the date of receipt under proper storage condition.

CAUTION

Proper precautions must be taken to avoid exposure. Always wear proper protective equipment (gloves, safety glasses, etc.) when handling these materials. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination.

KEY COMPONENTS

1. Basal Medium: The fundamental component of GPCR growth media consists of well-established basal media formulations. The choice of basal medium is highly contingent upon the specific cell type being cultured and the experimental parameters. Each basal medium is formulated with distinct nutrient compositions tailored to various cell metabolic needs, influencing cell viability and receptor expression differentially.
2. Serum: Fetal Bovine Serum (FBS) is an indispensable component of GPCR growth media, providing a wealth of essential growth factors, hormones, and nutrients crucial for cellular proliferation and longevity. FBS enriches the media with vital components like proteins, lipids, and signaling molecules. Alternatively, serum-free or low-serum media can be employed to minimize the variability introduced by serum, thereby enhancing the reproducibility of experimental data.
3. Antibiotics: In the quest to maintain the sterility of cell cultures—critical for preventing contamination that could compromise experimental integrity—Penicillin-Streptomycin is commonly added to the media. This

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antibiotic mixture effectively creates a protective barrier against bacterial pathogens, ensuring a conducive environment for healthy cell growth.

4. Selection Agents: For experiments involving transfected cells expressing the GPCR of interest, the incorporation of selection agents such as Geneticin (G418) or Puromycin is paramount. These agents provide the selective pressure necessary to enable the survival and expansion of only those cells successfully carrying the transfected plasmids, thereby streamlining the subsequent studies focused on the receptor.
5. Growth Supplements

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