Product sheet

HEK293-HER2 Cells | 305422

General information

Description	**Disclaimer: The prices displayed for cell lines are exclusively for not-for-profit customers. If you represent a commercial entity, please contact us for alternative pricing.** The HEK293-HER2 cell line is a stable recombinant HEK293 cell line engineered to express the HER2 receptor at a high level, approximately 75,000 molecules per cell. This cell line was developed using inscreenex's landing pad technology, ensuring precise and reproducible integration of the HER2 gene at a specific, pre-validated genomic locus. HER2, also known as ERBB2 or CD340, is a receptor tyrosine kinase that belongs to the epidermal growth factor receptor (EGFR) family. HER2 plays a crucial role in cell growth and differentiation, often forming heterodimers with other EGFR family members, such as EGFR, HER3, or HER4, to drive cell proliferation. Overexpression of HER2 is strongly associated with certain cancers, particularly breast and ovarian cancers, making it a critical target for cancer therapies, including monoclonal antibodies like Trastuzumab (Herceptin) and Pertuzumab (Perjeta). The expression of HER2 in this cell line was confirmed using flow cytometry with a target-specific antibody, ensuring reliable and consistent receptor density across the cell population.
Organism	Human
Tissue	Fetal Kidney

Characteristics

Age	Fetus
Gender	Female
Morphology	Epithelial-like
Growth properties	Monolayer, adherent

Regulatory Data

Citation	HEK293-HER2 (Cytion catalog number 305422)
Biosafety level	1
NCBI_TaxID	9606

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Biomolecular Data

Receptors expressed	HER2

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Subculturing	For routine adherent cell culture: Aspirate the old culture medium from the adherent cells, and wash them with PBS to remove any remaining medium. After aspirating the PBS, add the appropriate volume of Trypsin/EDTA solution based on the culture vessel size (e.g., 1 ml for a T25 flask, 3 ml for a T75 flask) and incubate at room temperature or 37?C until the cells detach (5-10 minutes). Monitor detachment under a microscope, and gently tap the vessel if necessary to release the cells. Once detached, add complete medium to inactivate the Trypsin/EDTA, gently resuspend the cells, and transfer an aliquot of the cell suspension into a new culture vessel containing fresh medium. Place the vessel in an incubator set to 37?C with 5% CO2, and change the medium every 2-3 days.
Split ratio	A ratio of 1:2 is recommended for the initial split after thawing. A ratio of 1:5 to 1:10 is recommended for routine culture.
Fluid renewal	2 to 3 times per week
Freeze medium	As a cryopreservation medium, use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

Quality Control & Molecular Analysis

Sterility	Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods. To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.