# HEKxpress & HEKxpress Feed

Ready-to-use



#### **HEKxpress**

## Long-Term Cultivation with Maximum Production Yield

HEKxpress has been developed to cultivate HEK293 and other human cell lines to high cell densities and maximum production yields. HEKxpress is a ready-to-use medium that contains stable Glutamine and does not require supplementation prior to usage.

### **Various applications**

HEKxpress is chemically-defined (CD), animal component-free (ACF) and does not contain serum (SF), proteins (PF) or hydrolysates. This feature allows a seamless transition through research and development stages and for further manufacturing.

HEKxpress can be used for the cultivation of HEK293 cells for various purposes of recombinant protein, antibody as well as viral vector or vaccine production. It is suited for transient transfection as well as for the establishment and cultivation of stable cell lines. Transfection can be carried out directly and efficiently in the medium. HEKxpress supports all common transfection methods such as chemical (Polyethylenimine, Lipofection, Calcium Phosphate etc.), physical (electroporation) and biological (viral transduction).

#### **Chemically-defined**

Serum-free Protein-free Animal-component-free

#### Versatile & 'Ready to use'

Stable glutamine (L-Alanyl-L-Glutamine) and without neither phenol red nor antibiotics

#### **HEKxpress Feed**

HEKxpress medium can be used with or without the HEKxpress Feed depending on the intended application and use.

Application Note HEKxpress



#### **Higher Protein Yield**

Yield studies were conducted to study protein production. HEK cells carrying hSEAP (human Secreted Alkaline Phosphatase) as inducible reporter gene were cultured in HEKxpress medium as per its standard protocol. Cultures were fed with HEKxpress Feed to promote long term culture. On day 4, the hSEAP expression was chemically induced. Medium in the control culture was from a top tier media company and considered gold standard in the media market. Viability was higher with HEKxpress as compared to the competitor medium graph 1. hSEAP yield was 1.6 times (160%) higher with HEKxpress compared to the competitor medium graph 2. This clearly demonstrates that higher protein yields are achieved with HEKxpress making it a medium of choice for protein production in HEK cells.





#### **Better Growth – Higher Density**

HEKpress can be used as a basal but complete medium without the HEKxpress Feed for applications where quick turnaround times are needed to express and produce one or many proteins in a short period of time. It has been shown that higher cell densities and shorter cultivation times are achieved with HEKxpress medium compared to competing products.



Comparison of HEKxpress medium with Supplier T medium in batch cultures. HEKxpress provides better growth support than Supplier T for HEK293 cells as demonstrated by higher viable cell density (vcd) even in the absence of feed.

#### **Prolonging with HEKxpress Feed**

The full potential of HEKxpress medium unfolds in combination with its specifically designed HEKxpress Feed. For applications where cells are cultured for longer periods with the intention of maximum production yield, the addition of HEKxpress Feed will increase cell viability and productivity.



Comparison of HEKxpress CD medium with Supplier T medium in fed-batch cultures. HEKxpress medium supported HEK293 cultures supplemented with HEKxpress Feed from day 3 on a daily basis (5% v/v). HEK293 cultures viable cell density and viability significantly increased with the addition of HEKxpress Feed prolonging the culture period to day 12.

#### **Feed Others**

HEKxpress Feed is also compatible with HEK media from other manufacturers and thus can also enhance viability and productivity of cultures in situations where switching of the basal media itself is not possible.



Cultures supported by Supplier T medium were fed with HEKxpress Feed to enhance the duration of HEK293 cultures. All parameters of culture including cell density, viability and duration were significantly increased by the addition of HEKxpress Feed from day 3 on a daily basis (5% v/v).

#### Available HEKxpress Media

Cat. No	Description	Size
10-02S200-I	HEKxpress ready-to-use	500 ml
5-03Z01-l	HEKxpress Feed	500 ml

Other formats including various bag sizes and bulk are available upon request

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BioConcept has been operating under a certified quality management system since 1995. Our production site for liquid and powder media production is located in the Life Science area Basel (Switzerland).



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