

# cQrex<sup>®</sup> ingredients

Chemically defined peptides and antioxidant  
for biopharma cell culture applications

cQrex<sup>®</sup>



## A global partner to the pharma and biotech industry

Evonik is one of the world's leading specialty chemical companies, with over 33,000 employees and a presence in more than 100 countries. Biopharmaceutical companies from around the world leverage our broad portfolio of cell culture ingredients and value-adding services in their production of therapeutic proteins like monoclonal antibodies, viral vectors, vaccines and therapeutic cells. We address complex customer demands for high-quality cell culture solutions by relying on decades of expertise in the production of highly pure media ingredients. Our cQrex® performance boosters are manufactured at trusted European sites while our cell culture labs in Germany and Singapore provide customer support based on technical know-how and expertise.



## Our offering: peptides and beyond



### PEPTIDES

cGMP-quality peptides to overcome solubility and stability challenges of amino acids and reach higher cell productivity



### ANTIOXIDANT

cQrex® AKG provides energy, protects cells against oxidative damage and stimulates cell growth



### SERVICES

Media formulation, regulatory and application support with strong local market expertise

## The cQrex® effect: enhanced cell culture performance

Tyrosine, cystine and glutamine are amino acids that are hardly soluble or unstable in cell culture media. These properties limit process performance, especially if highly concentrated feed or perfusion media are required to intensify the process.

cQrex® peptides from Evonik provide an elegant solution. Chemical coupling to carrier amino acids yields peptides that are stable and highly soluble at neutral pH. These natural building blocks are efficiently utilized by a variety of mammalian cells.

### PRODUCT PROPERTIES

- Stable
- Soluble
- Bioavailable
- Non-animal-derived
- Chemically defined

### PROCESS BENEFITS



#### Process intensification

Higher concentrations and smaller volumes



#### Process simplification

Reduced number of feeds and neutral pH



#### Increased productivity

Optimized cell culture performance

## Curious? Order samples to test them in your system

When performance is of the essence, it helps to have the right tools available. The cQrex® portfolio consists of peptides and the keto acid AKG, which are designed to help manage the supply of critical nutrients by

improving their stability or solubility, in order to increase the cell productivity and ensure the efficient production of biopharmaceuticals. All products are readily available at commercial scale.

### Overview of cQrex® ingredients

PRODUCT NAME	MOLECULAR WEIGHT	SOLUBILITY IN WATER (20 °C, pH 7)		SAMPLE QUANTITY
<b>cQrex® AQ</b> L-Alanyl-L-glutamine	217.23 g/mol	720 g/L	3314 mM	10 g
<b>cQrex® GQ</b> Glycyl-L-glutamine hydrate	221.23 g/mol	154 g/L	696 mM	10 g
<b>cQrex® GY</b> Glycyl-L-tyrosine dihydrate	274.27 g/mol	34 g/L	124 mM	10 g
<b>cQrex® AY</b> L-Alanyl-L-tyrosine dihydrate	288.31 g/mol	20 g/L	69 mM	10 g
<b>cQrex® AC</b> N,N'-di-L-Alanyl-L-cystine	382.457 g/mol	13 g/L	34 mM	6 g
<b>cQrex® KC</b> N,N'-di-L-Lysyl-L-cystine dihydrochloride	569.57 g/mol	>570 g/L	>1000 mM	10 g
<b>cQrex® AKG</b> α-ketoglutaric acid	146.07 g/mol	>1000 g/L	>6846 mM	5 g

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