

Custom Service for Protein Production

Do you have a protein you would like us to express for you? We will use our robust *in vitro* protein expression technology to service your needs. Customers have the option to perform a test-scale expression to assess the yield and solubility of their protein of interest, and then scale up to the larger quantity required by the experiment.

Wheat Germ Protein Expression Technology

Abnova's cell-free protein synthesis system is pioneered by Professor Yaeta Endo of Ehime University, Japan. This platform is based on the eukaryotic translation apparatus of wheat germ. Wheat embryos store all of the components of translation in a concentrated dried state, ready for protein synthesis as soon as germination starts. Conventional wheat germ extracts contain the RNA N-glycosidase tritin and other inhibitors of translation such as thionin, ribonucleases, deoxyribonucleases, and proteases. These inhibitors originate from the endosperm. Extensive washing of wheat embryos to eliminate endosperm contaminants has resulted in extracts with a high degree of stability and activity. By using mRNA having 5'-cap and a poly(A)-tail with this extract, the translation reaction yields mg quantities of active proteins per ml of reaction volume. This system has significant advantages over other commonly used protein expression systems. With an expression vector designed for large scale protein expression, the platform is amenable to production of many proteins in parallel using robotic instruments. Assessment of the proteins produced by this technology showed many of them retained their correct foldings and biological functions.

Advantages

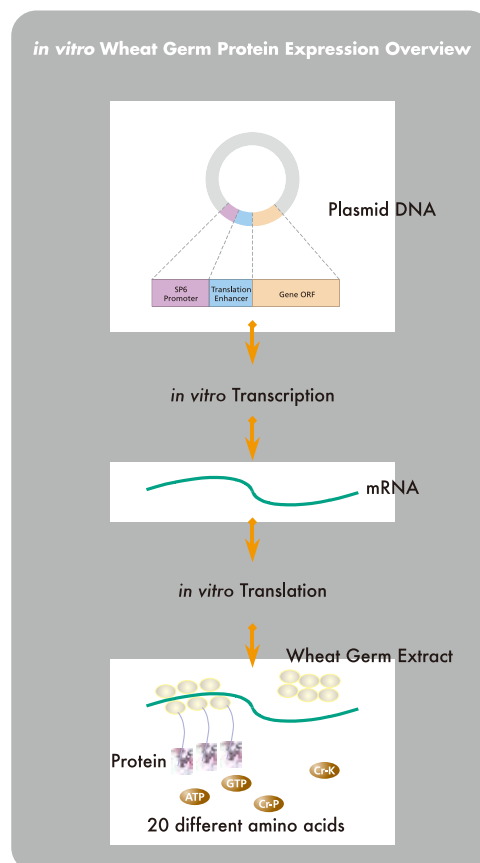
- High Solubility
- High Yield
- High Success Rate
- Automated Expression and Purification
- More Native Protein Conformation

Protein Types

- Full-length
- Partial-length

Categories

- | | |
|-------------------------|-----------------------|
| ● Angiogenesis | ● Metabolism |
| ● Apoptosis | ● Neurobiology |
| ● Binding | ● Plasma/Serum |
| ● Cell Ad/Junc/Cytoskel | ● Signal Transduction |
| ● Cell Cycle | ● Stem Cell |
| ● Cytokine | ● Transcriptions |
| ● Enzyme | ● Ubiquitin |
| ● Membrane | ● Others |



Custom Protein Services

Specification		Standard Package	Delux Package
Plasmid Material	Supplied by Customer	√	
	Supplied by Abnova *		√
Amplification of the gene of interest and subclonong it into the expression vector		√	√
Protein Expression and Purification		√	√
Final Deliverables		1. 0~30ug purified soluble GST-tagged protein ** 2. QC data ***	
Total Lead Time		~6 weeks	Quote
Total Price (USD/EUR)		\$1,000	Quote

Note:

* If plasmid is supplied or synthesized via assembly PCR by Abnova, Abnova will charge an extra fee. Please inquire.

** This is the average yield. Actual yield will vary for each protein. GST-tag removal service: additional 200 USD/EUR

*** QC by SDS-PAGE and Western blot: FREE Western QC data is available for tagged proteins that can be detected by anti-GST antibody.

Instruments for Protein Production

Protemist® XE - Large-Scale Protein Synthesizer

Protein Quantity:

10 mg - 500 mg of Single Protein



Abnova uses Protemist® XE for large-scale protein production. Protemist® XE uses a special wheat germ lysate and a batch reaction method. It is ideally suited for producing 10 mg to over 500 mg of protein for assay development, functional and structural analysis. Protemist® XE uses a unique "Filter-and-Feed" translation method maximizes protein yield by a programmed replenishment of translation buffer and mRNA.

Protemist® DT II - High Throughput Protein Synthesizer

Protein Quantity:

0.5 mg for 6 Multiple Proteins

0.1 mg for 24 Multiple Proteins



Abnova uses Protemist® DT II for high throughput protein production. Protemist® DT II synthesizes the protein of interest using a special wheat germ lysate and a bi-layer reaction. It can run two scales of translational reaction, 1.2 ml (24 well) or 6 ml (6 well). Batch affinity purification is available for affinity tagged fusion protein synthesized in 6-ml (6 well) reaction scale. Protemist® DT II is an expert system in transcription, translation, and purification.

The above list price is only used for direct orders made to Abnova