Expresso® Solubility & Expression Screening System

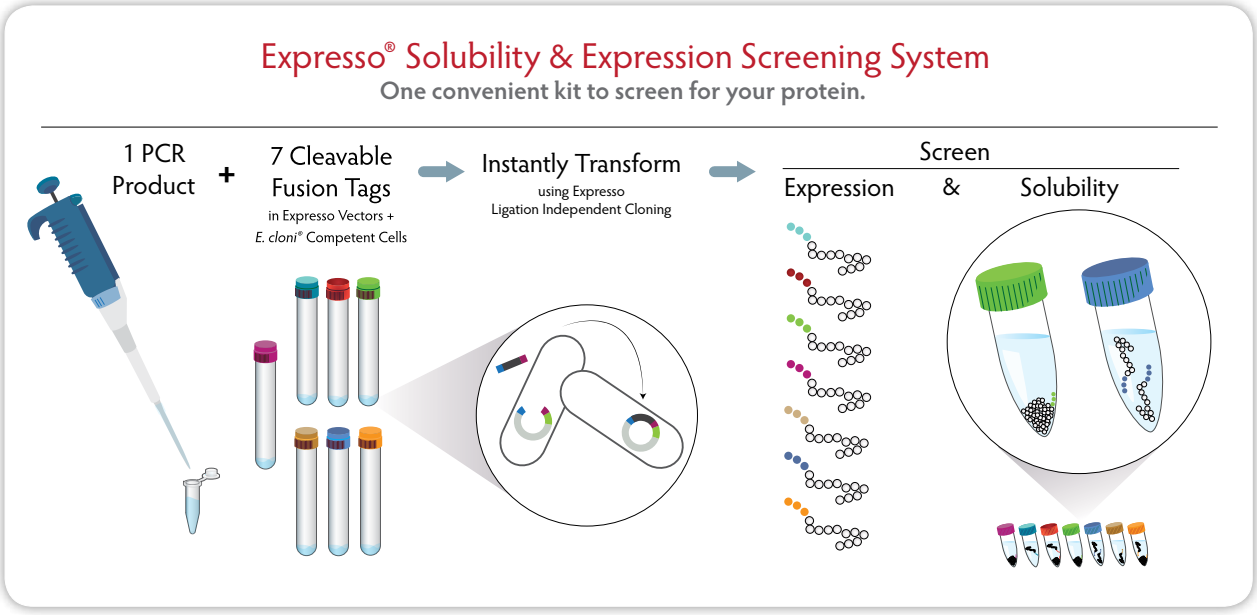
Increase Protein Expression and Solubility

4 Novel Tags + MBP, GST, SUMO

- Screen our panel of 7 fusion tags to find the best fusion partner for your target
- Get soluble protein faster: PCR to protein in as little as 4 days
- Produce native protein with SelecTEV™-cleavable tags
- Multiplex your protein expression with HTP-compatible protocols
- Use one amplicon to simultaneously generate all your constructs

Protein expression in *E. coli* can be challenging when the target protein is insoluble, or expressed at very low levels. Using a fusion partner is a common method to increase expression and enhance solubility, but there are a myriad of tags to choose from.

The Expresso Solubility and Expression Screening System is the only all-in-one kit that allows you to screen your target against 7 unique and literature-validated fusion partners simultaneously. All you need is one set of PCR primers for your target of interest. The optimized workflow is designed for parallel cloning, transformation and screening to save time and effort while maximizing the probability of success.



At A Glance

- 7 ready-to-use vectors, each with a unique fusion tag to increase probability of successful expression and solubility
- Rhamnose promoter allows single strain cloning, highly tunable expression and hands-free autoinduction
- SelecTEV Protease sites enable purification of native protein
- Expresso® technology increases cloning efficiency and simplicity

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Lucigen®
Simplifying Proteomics

Find the Right Fusion Tag for Your Protein for Maximum Expression and Solubility

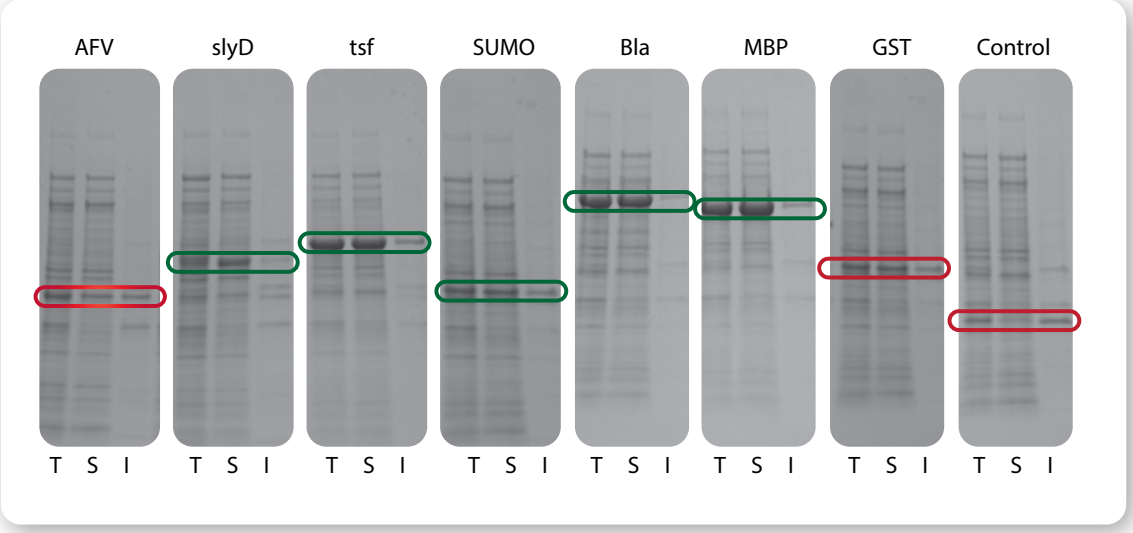

Figure 1. GH1 (Human growth hormone) was evaluated for *E. coli* expression and solubility when expressed as a fusion. Fusion tags SlyD, tsf, SUMO, Bla, and MBP demonstrated enhanced solubility (Lane S) compared to the His-control protein. T- Total lysate, S- Cleared soluble fraction, I – Insoluble pellet.

Fusion Tags Included

The Expresso Solubility and Expression Screening System includes 7 vectors that each contain a unique fusion tag and one His control vector. The fusion tags vary in sequence, size, and derivative. Below is a table summarizing the characteristics of each fusion tag:

#	Fusion Tag	AA Length	kDa*	pI	Description
1	6xHis-AFV	113	13.5	5.0	Hypothetical protein from Acidianus filamentous virus 1
2	6xHis-SlyD	210	22.7	5.2	FKBP-type peptidyl-prolyl cis-trans isomerase
3	6xHis-Tsf	297	32.2	5.7	*E. coli* elongation factor
4	6xHis-SUMO	115	13.3	5.2	Small Ubiquitin-like Modifier
5	6xHis-Bla	381	41.3	4.4	Beta-lactamase
6	6xHis-MBP	382	42.1	5.5	Maltose-Binding Protein
7	6xHis-GST	233	27.4	6.6	Glutahione S-transferase
8	6xHis Control	14	1.8	7.0	Affinity Tag

Products	Size	Cat. No.	Price
Expresso® Solubility and Expression Screening System	24 rxns	49060-1	$979
Expresso Solubility and Expression Screening System + SelecTEV™ Protease	24 rxns	49062-1	$1071
Expresso Solubility and Expression Screening System + Accura® High-Fidelity Polymerase	24 rxns	49064-1	$1020
Expresso Solubility and Expression Screening System + SelecTEV™ Protease + Accura® High-Fidelity Polymerase	24 rxns	49066-1	$1102

ORDER INFORMATION

The Expresso Solubility and Expression Screening System contains pre-processed pSol™ vectors with 7 different fusion tags and one His-tagged control vector, positive control insert, sequencing primers, E. cloni® 10G Chemically Competent Cells (SOLOs), and 20% Rhamnose solution and 15% Glucose solution auto-induction reagents. SelecTEV™ Protease and Accura® High-Fidelity Polymerase are available separately.

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