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Datasheet for ABIN4842825 Human UCP1 cDNA Clone in Bacterial Expression Vector (His-GST)

Overview

Quantity:	500 ng
Gene:	UCP1
Species:	Human
Fusion tag:	His-GST
Insert:	cDNA
Vector:	Bacterial Expression Vector
Application:	Cloning (Clon)

Product Details

Purpose:	Bacterial expression of Human UCP1 with His-GST
Insert Length:	924 bp
Vector Backbone:	pPB-His-GST
Promoter:	T7 Promoter
Bacterial Resistance:	Kanamycin
Expression Type:	Transient
Specificity:	5-Nhel and 3-Xhol Fusion tag: Dual N-terminal tag, 6X Histidine followed by Glutathione-S-Transferase Protein which is cleavable with TEV (Size 27.9 kDa)
Sequencing Primer:	GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3'

Target Details

Gene:

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Target	Details
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Alternative Name:

UCP1 (UCP1 Products)

Application Details

Application Notes:	The pPB vectors are low-medium copy number vectors in which the gene expression is driven
	by the strong T7 promoter.
	Below are some basic guidelines for using the pPB vectors for protein production:
	1. The pPB vectors are designed to be used with E. coli strains that are DE3 lysogens i.e. the
	host E. coli cell has a source of T7 RNA polymerase.
	2. Recombinant protein induction is usually done at OD600 of 0.6-1.2 using Isopropyl β -D-1-
	thiogalactopyranoside (IPTG) at a final concentration of 0.05 -1mM.
	3. The ideal concentration of IPTG must be determined empirically for each recombinant
	protein/cell-line. Similarly, the length of time and temperature for induction provide other
	variables that need to be optimized on a case-to-case basis.
	4. For toxic proteins, it is recommended to go for shorter induction time and also to try and
	suppress basal recombinant gene expression through (a) addition of glucose or use of pLysS
	plasmid. Please note that special cell-lines are also available in the market that cater to
	expression of toxic proteins.
	5. Once grown for the desired length of time, harvest cells by centrifugation and either freeze
	the cells at -80°C (as such or after re-suspending in the desired buffer) or proceed with the
	purification.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	10 mM Tris-HCl, 1 mM EDTA, pH 8.0
Storage:	-20 °C
Storage Comment:	1 year when stored at -20° C or lower in a non-frost free freezer.
Expiry Date:	12 months
Publications	
Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (
	1991)