-online.com **QENOMICS**



Datasheet for ABIN4842245

Human TPK1 cDNA Clone in Bacterial Expression Vector (His-GST)

| which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Overview | |
|--|-----------------------|---|
| Species: Human Fusion tag: His-GST Insert: cDNA Vector: Bacterial Expression Vector Application: Cloning (Clon) Product Details Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5-CACGTTTGGTGGTGGCGAC3, T7 terminator primer: 5-GCTAGTTATTGCTCAGCGG-3* Target Details | Quantity: | 500 ng |
| Fusion tag: His-GST Insert: cDNA Vector: Bacterial Expression Vector Application: Cloning (Clon) Product Details Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote 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: | TPK1 |
| Insert: cDNA Vector: Bacterial Expression Vector Application: Cloning (Clon) Product Details Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Species: | Human |
| Vector: Bacterial Expression Vector Application: Cloning (Clon) Product Details Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Fusion tag: | His-GST |
| Application: Cloning (Clon) Product Details Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Insert: | cDNA |
| Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Vector: | Bacterial Expression Vector |
| Purpose: Bacterial expression of Human TPK1 with His-GST Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Application: | Cloning (Clon) |
| Insert Length: 732 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Product Details | |
| 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Purpose: | Bacterial expression of Human TPK1 with 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Insert Length: | 732 bp |
| 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 Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Vector Backbone: | pPB-His-GST |
| Expression Type: Transient Specificity: 5-Nhel and 3-Xhol Fusion tag: Dual N-terminal tag, 6X Histidine followed by Glutathione-S-Transferase Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Promoter: | T7 Promoter |
| Specificity: 5-Nhel and 3-Xhol Fusion tag: Dual N-terminal tag, 6X Histidine followed by Glutathione-S-Transferase Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Bacterial Resistance: | Kanamycin |
| Fusion tag: Dual N-terminal tag, 6X Histidine followed by Glutathione-S-Transferase Prote which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Expression Type: | Transient |
| which is cleavable with TEV (Size 27.9 kDa) Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | Specificity: | 5-Nhel and 3-Xhol |
| Sequencing Primer: GST Forward primer: 5'-CACGTTTGGTGGCGAC3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3' Target Details | | Fusion tag: Dual N-terminal tag, 6X Histidine followed by Glutathione-S-Transferase Protein |
| GCTAGTTATTGCTCAGCGG-3' Target Details | | which is cleavable with TEV (Size 27.9 kDa) |
| Target Details | Sequencing Primer: | GST Forward primer: 5'-CACGTTTGGTGGTGGCGAC3', T7 terminator primer: 5'- |
| | | GCTAGTTATTGCTCAGCGG-3' |
| | Target Details | |
| Gene: TPK1 | Gene: | TPK1 |

TPK1 (TPK1 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-1thiogalactopyranoside (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-HCI, 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)