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# Datasheet for ABIN4826340 Human ALDH6A1 cDNA Clone in Bacterial Expression Vector (His-GST)

#### Overview

| Quantity:    | 500 ng                      |
|--------------|-----------------------------|
| Gene:        | ALDH6A1                     |
| Species:     | Human                       |
| Fusion tag:  | His-GST                     |
| Insert:      | cDNA                        |
| Vector:      | Bacterial Expression Vector |
| Application: | Cloning (Clon)              |

#### Product Details

| Purpose:              | Bacterial expression of Human ALDH6A1 with His-GST  |
|-----------------------|---|
|                       |   |
| Insert Length:        | 1608 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:

ALDH6A1

#### Target Details

Alternative Name:

ALDH6A1 (ALDH6A1 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 $\beta$ -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, (<br>1991) |