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## Datasheet for ABIN4697974 Human BACE1 cDNA Clone in Bacterial Expression Vector (His-MBP)

#### Overview

| Quantity:    | 500 ng                      |
|--------------|-----------------------------|
| Gene:        | BACE1                       |
| Species:     | Human                       |
| Fusion tag:  | His-MBP                     |
| Insert:      | cDNA                        |
| Vector:      | Bacterial Expression Vector |
| Application: | Cloning (Clon)              |

#### Product Details

| Purpose:              | Bacterial expression of Human BACE1 with His-MBP   |
|-----------------------|--|
| Insert Length:        | 1506 bp  |
| Vector Backbone:      | pPB-His-MBP  |
| Promoter:             | T7 Promoter  |
| Bacterial Resistance: | Kanamycin  |
| Expression Type:      | Transient  |
| Specificity:          | 5-Nhel and 3-Xhol<br>Fusion tag: Dual N-terminal tag, 6X Histidine followed by Maltose Binding Protein which is<br>cleavable with Thrombin (Size 43 kDa) |
| Sequencing Primer:    | MBP Forward primer: 5'-CGCAGATGTCCGCTTTCTGG-3', T7 terminator primer: 5'-GCTAGTTATTGCTCAGCGG-3'  |

### Target Details

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| Target Details      |  |
|---------------------|--|
| Alternative Name:   | BACE1 (BACE1 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, ( |
|                   | 1991)  |