# Periplasmic Binding Transport Protein

**Cat. No.** CBCRY22 **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | |
| **Source** | E.coli |
| **Background** | The crystal structure of a periplasmic l-aspartate/l-glutamate binding protein (DEBP) from Shigella flexneri complexed with an l-glutamate molecule has been determined and refined to an atomic resolution of 1.0 A. There are two DEBP molecules in the asymmetric unit. The refined model contains 4462 non-hydrogen protein atoms, 730 water molecules, 2 bound glutamate molecules, and 2 Tris molecules from the buffer used in crystallization. The final R(cryst) and R(free) factors are 13.61% and 16.89%, respectively. |
| **Protein Classification** | Transport protein |
| **Structure Weight** | 64851.95 Da |
| **Polymer** | 1 |
| **Molecule** | Periplasmic Binding Transport Protein |
| **Chain Length** | 287 amino acids |
| **PDB ID** | 2VHA |
| **MMDB ID** | 70491 |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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| **Method** | X-Ray Diffraction |
| **Resolution** | 2.8Å |
| **Ligand Chemical Component** | Glutamic acid; 2-amino-2-hydroxymethyl-propane-1,3-diol |
| **Reference** | Hu, Y.L., Fan, C.-P., Fu, G.S., Zhu, D.Y., Jin, Q., Wang, D.-C. (2008) Crystal Structure of a Glutamate/Aspartate Binding Protein Complexed with a Glutamate Molecule: Structural Basis of Ligand Specificity at Atomic Resolution. J.Mol.Biol. 382: 99-111 |

## GENE INFORMATION

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|---|---|
| **Gene Name** | livJ |
| **Synonyms** | S4285 |
| **Gene ID** | 1080493 |
| **Function** | Transport activity |

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