Data Sheet (Cat.No.TMPJ-00883)



EGR1 Protein, Human, Recombinant (His)

General Information

Synonyms: zinc finger protein 225;NGFI-A;Zif268;Early growth response protein 1;EGR-1;nerve growth

factor-induced protein A

Protein Construction: Gln282-Ser433

Species: Human

Expression Host: E. coli

Accession: P18146

Molecular Weight: 19 KDa (reducing condition)

AA Sequence: Gln282-Ser433

QC Testing

Biological Activity:

Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you

require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: Greater than 95% as determined by reducing SDS-PAGE. (QC verified)

Endotoxin: $< 0.1 \text{ ng/}\mu\text{g} (1 \text{ EU/}\mu\text{g})$ as determined by LAL test.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM

NaCl, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μ g/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice. Solutions are shipping with dry ice.

Protein Background

EGR-1 belongs to the EGR family of C2H2-type zinc finger proteins. It is a nuclear protein and functions as a transcriptional regulator. EGR-1 recognizes and binds to the DNA sequence 5'-CGCCCCGC-3'(EGR-site). The products of target genes it activates are required for differentiation and mitogenesis. Studies suggest this is a tumor suppressor gene. EGR-1 has a distinct pattern of expression in the brain, and its induction has been shown to be associated with neuronal activity. Several studies suggest it has a role in neuronal plasticity. EGR-1 has also

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been found to regulate the expression of synaptobrevin II (a protein important for synaptic exocytosis).

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