Data Sheet (Cat.No.TMPY-02646)

TargetMol

NSE/ENO2 Protein, Human, Recombinant (His)

General Information

Synonyms:	enolase 2 (γ, neuronal);NSE;HEL-S-279;enolase 2 (gamma, neuronal)
Protein Construction:	A DNA sequence encoding the mature form of human ENO2 (P09104) (Met 1-Leu 434) was fused with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 1
Species:	Human
Expression Host:	E. coli
Accession:	P09104
Molecular Weight:	48.6kDa (predicted); 48 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The combination of silencing ENO2 and 2-deoxyglucose (2-DG) synergistically inhibited leukemia cell survival. ENO2 may be a biological marker for monitoring chemotherapeutic efficacy and relapse in ALL. Reduced ENO2 expression may be a biomarker for a subset of autistic children. Neuron specific enolase (ENO2, gamma-enolase) has been used as a biomarker to help identify neuroendocrine differentiation in breast cancer.

Reference

Pechumer H,et al.(1994) Detection of neuron-specific gamma-enolase messenger ribonucleic acid in normal human leukocytes by polymerase chain reaction amplification with nested primers. Lab Invest. 69 (6): 743-9.
Craig SP,et al.(1991) Localisation of neurone-specific enolase (ENO2) to 12p13. Cytogenet Cell Genet. 54 (1-2): 71-3.
Muley T,et al.(2003) Technical performance and diagnostic utility of the new Elecsys neuron-specific enolase enzyme immunoassay. Clin Chem Lab Med. 41 (1): 95-103.

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