

Recombinant Human Neuron-specific Enolase

#R00501

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Neuron-specific Enolase (Enolase 2) is a 47.1 kDa member of the Enolase family of enzymes. It is expressed in developing neurons and glia, is known to catalyze the generation of phosphoenolpyruvate, and is suggested to possess neurotrophic activity for neurons, likely through an extracellular mechanism. Human Neuron-specific Enolase is 433 amino acids (aa) in length. The enzymatic site spans most of the length of the molecule. Neuron-specific Enolase exists as both a noncovalently-linked homodimer, or heterodimer with alpha-enolase. Full-length human Enolase 2 shares 99% aa identity with both murine and canine Enolase 2. It shares 83 % aa identity with human enolases 1 and 3.

AA Sequence

SIEKIWAREILDSRGNPTVEVDLYTAKGLFRAAVPSGA
STGIYEALELRDGDQRYLGKGV LKAVDHINSTIAPALI
SSGLSVVEQEKL DNLMLELDGTENKSKFGANAILGVS

LAVCKAGAAERELPLYRHIAQLAGNSDLILPVPAFNVI
NGGSHAGNKLAMQEFMILPVGAESFRDAMRLGAEV
YHTLKGVIKDKYGKDATNVGDEGGFAPNILENSEALE
LVKEAIDKAGYTEKIVIGMDVAASEFYRDGKYDLDFKS
PTDPSRYITGDQLGALYQDFVRDYPVVSIEDPFDQDD
WAAWSKFTANVGIIQVGGDLTVTNPKRIERA VEEKAC
NCLLLKVNQIGSVTEAIQACKLAQENGWGMVSHRS
GETEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQL
MRIEEELGDEARFAGHNFRNPSVL

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 47.1 kDa, a single non-glycosylated polypeptide chain containing 433 amino acids.
Purity	> 95 % by SDS-PAGE analyse.
Biological Activity	Data Not Available.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 5 % Trehalose.
Endotoxin	Less than 0.1 EU/µg of rHuNSE as determined by LAL method.