

ENO1 Protein, Rat, Recombinant (His)

General Information

Synonyms:	enolase 1, (alpha);Eno-1;enolase 1, (α)
Protein Construction:	A DNA sequence encoding the rat Eno1 (NP_036686.2) (Met1-Lys434) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: Met
Species:	Rat
Expression Host:	E. coli
Accession:	P04764
Molecular Weight:	49.4 kDa (predicted)

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:	> 95 % as determined by SDS-PAGE.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing 50 mM Tris, 10% Glycerol, pH 8. 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:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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 ENO1 gene encodes a multifunctional enzyme that has been identified as a key component of the glycolytic pathway. ENO1 overexpression and post-translational modifications could be of diagnostic and prognostic value in many cancer types. The results of the ENO1 expression profiling of ovarian follicles suggest that ENO1 may play an important dual role in the progress of follicular development, where ENO1 acts as a glycolytic enzyme and also mediates apoptosis. ENO1 overexpression could make the primary culture follicle granulosa cells in vitro improve

progesterone secretion. The over-expression of ENO1 protein can enhance the abilities of proliferation and migration in gastric cancer cells of AGS, which indicates that ENO1 may be an important potential tumor-marker associated with the development of gastric cancer. ENO1 and GPI can be used as markers of human sperm freezability before starting the cryopreservation procedure. The inhibition of ENO1 expression may be a novel strategy for therapy for NHLs patients, and it may be a target for drug resistance.

Reference

- Capello M, et al. (2011) a-Enolase: a promising therapeutic and diagnostic tumor target. FEBS J. 278(7): 1064-74.
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- Lopez-Aleman R, et al. (2005) Alpha-enolase plasminogen receptor in myogenesis. Front Biosci. 10: 30-6.
- Ejeskdr K, et al. (2005) Introduction of in vitro transcribed ENO1 mRNA into neuroblastoma cells induces cell death. BMC Cancer. 5: 161.

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