Data Sheet (Cat.No.TMPY-03391)

TargetMol

ESD Protein, Human, Recombinant (His)

General Information

Synonyms:	esterase D;FGH
Protein Construction:	A DNA sequence encoding the mature form of human ESD (Q99426) (Met1-Ala282) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q99426
Molecular Weight:	33.4 kDa (predicted); 34 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:	> 95 % 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:

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

Esterase D, also known as ESD, is a serine hydrolase that belongs to the esterase D family. Esterase D is active toward numerous substrates including O-acetylated sialic acids, and it may be involved in the recycling of sialic acids. Esterase D gene is used as a genetic marker and a diagnostic tool for retinoblastoma, Wilson's disease and other hereditary or acquired diseases controlled by genes located at the 13 chromosome 13q14 region.

Reference

Lee EY,et al.(1986) Molecular cloning of the human esterase D gene, a genetic marker of retinoblastoma. Proc Natl Acad Sci. 83(17):6337-41.
Lee EY,et al.(1988) Human esterase D gene: complete cDNA sequence, genomic structure, and application in the genetic diagnosis of human retinoblastoma. Hum Genet. 79(2): 137-41.
Saito S,et al.(2003) Catalog of 680 variations among eight cytochrome p450 (CYP) genes, nine esterase genes, and two other genes in the Japanese population. J Hum Genet. 48(5): 249-70.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481