

Recombinant Human ERO1L, His-tagged

Cat. No. ERO1L-82H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ERO1-Like Protein α /ERO1L is produced by our mammalian expression system in human cells. The target protein is expressed with sequence (Glu24-His468) of Human ERO1L fused with a polyhistidine tag at the C-terminus.
Species	Human
Source	HEK293
ProteinLength	24-468 a.a.
Description	ERO1-Like Protein α (ERO1L) is an enzyme that belongs to the EROs family. ERO1L is expressed at high level in esophagus and upper digestive tract. ERO1L is an essential oxidoreductase that oxidizes proteins in the endoplasmic reticulum to produce disulfide bonds. ERO1L acts by oxidizing directly P4HB/PDI isomerase through a direct disulfide exchange. It associates with ERP44, demonstrating that it does not oxidize all PDI related proteins and can discriminate between PDI and related proteins. Its reoxidation probably involves electron transfer to molecular oxygen via FAD. ERO1L may be responsible for a significant proportion of reactive oxygen species (ROS) in the cell. ERO1L responses to temperature stimulus, protein thiol-disulfide exchange, protein folding with or without chaperone cofactor and transport.
AA Sequence	EEQPPETAAQRCFCQVSGYLDDCTCDVETIDRFNNYRLFPRQLKLLESDYFRYYKV NLKRPCPFW NDISQCGRRDCAVKPCQSDEVPDGIKSASYKYSEEANNLIEECEQAE

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RLGAVDESLSEETQKAVL QWTKHDDSSDNFCEADDIQSPEAEYVDLLLNPERYTGY
 KGPDAWKIWNVIYEENC FK PQTIKRPL NPLASGQGTSEENTFYSWLEGLCVEKRAF
 YRLISGLHASINVHLSARYLLQETWLEKKWGHNITE FQQRFDGILTEGEGPRRLKNL
 YFLYLIELRLASKVLPFFERPDLFTGNKIQDEENKMLLLEIL HEIKSFPLHFDENSFF
 AGDKKEAHKLKEDFRLHFRNISRIMDCVGCFCRLWGKLQTQGLGTALK ILFSEKLI
 ANMPESGPSYEFHLTRQEIVSLFNAFGRISTSVKELENFRNLLQNIHVDHHHHHH

Endotoxin Less than 0.1 ng/μg (1 IEU/μg).

Purity Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.

GENE INFORMATION

Gene Name ERO1L ERO1-like (*S. cerevisiae*) [*Homo sapiens*]

Official Symbol ERO1L

Synonyms ERO1L; ERO1-like (*S. cerevisiae*); ERO1 (*S. cerevisiae*) like; ERO1-like protein alpha; ERO1 alpha; ERO1A; ERO1-L; ERO1-L-alpha; oxidoreductin-1-L-alpha; endoplasmic oxidoreductin-1-like protein; ERO1-alpha;

Gene ID 30001

mRNA Refseq NM_014584

Protein Refseq NP_055399

UniProt ID Q96HE7

Chromosome Location 14q22.1

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Pathway

Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; Insulin Synthesis and Processing, organism-specific biosystem; Protein processing in endoplasmic reticulum, organism-specific biosystem; Protein processing in endoplasmic reticulum, conserved biosystem; Vibrio cholerae infection, organism-specific biosystem; Vibrio cholerae infection, conserved biosystem;

Function

flavin adenine dinucleotide binding; oxidoreductase activity; oxidoreductase activity, acting on a sulfur group of donors, disulfide as acceptor;

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