
Product Data Sheet

Product Name: ERO1L Human
 Cat. No.: GP23416
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	ERO1-Like (S. Cerevisiae); Endoplasmic Oxidoreductin-1-Like Protein; Oxidoreductin-1-L-Alpha; ERO1-L-Alpha; ERO1LA; ERO1-L; ERO1 (S. Cerevisiae)-Like; ERO1-Like Protein Alpha; ERO1-Alpha; EC 1.8.4.-; EC 1.8.4; ERO1A; ERO1L.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSEEQPPET AAQRCFCQVS GYLDDCTCDV ETIDRFNNYR LFPRLQKLE SDYFRYYKVN LKRPCFWND ISQCGRRDCA VKPCQSDEVP DGIKSASYKY SEEANNLIEE CEQAERLGAV DESLSEETQK AVLQWTKHDD SSDNFCEADD IQSPEAEYVD LLLNPERYTG YKGPDAWKI W NVIYEENCFK PQTIKRPLNP LASGQGTSEE NTFYSWLEGL CVEKRAFYRL ISGLHASINV HLSARYLLQE TWLEKKWGHN ITEFQQRFDG ILTEGEGPRR LKNLYFLYLI ELRALSKVLP FFERPDFQLF TGNKIQDEEN KMLLLEILHE IKSFPLHFDE NSFFAGDKKE AHKLKEDFRL HFRNISRIMD CVGCFKCRLW GKLQTQGLGT ALKILFSEKL IANMPESGPS YEFHLTRQEI VSLFNAFGRI STSVKELENF RNLLQNIH.		
Formulation	The ERO1L solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0) and 10% glycerol.		

Introduction

ERO1-like protein alpha (ERO1L) is an essential oxidoreductase, which oxidizes proteins and is necessary for the folding of immunoglobulins. ERO1L covalently binds with PDI (protein disulfide-isomerase) and jointly they generate disulfide bonds between proteins in the endoplasmic reticulum. ERO1L is stimulated by hypoxia, proposing that ERO1L is regulated through the HIF (hypoxia inducible transcription factor) pathway. At low levels ERO1L is ubiquitously expressed, however at high levels it is expressed in the upper digestive tract and esophagus. In addition, ERO1L is involved in the release of the

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unfolded cholera toxin from reduced P4HB/PDI in case of infection by V.cholerae, thus having a role in retrotranslocation of the toxin. Furthermore, ERO1L plays an important role in ER stress-induced, CHOP-dependent apoptosis by activating the inositol 1,4,5-trisphosphate receptor IP3R1.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

ERO1L Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 468 amino acids (24-468) and having a molecular mass of 54.4 kDa. ERO1L is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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