

PROTEIN DATASHEET

PROTEIN NUMBER	PROTEIN NAME	EXPRESSION HOST
2016-1279	LDH-Pf (Purified recombinant <i>P. falciparum</i> LDH)	<i>Escherichia coli</i>

GENERAL INFORMATION

Construct Design	: LDH-Pf (1-316) was expressed with a polyhistidine tag followed by a Human Rhinovirus 3C protease cleavage site at the N-terminus. Full length: 335 amino acids Primary sequence length: 316 amino acids (1Met – 316Ala*)
Theoretical Molecular Mass	: 36.2 kDa
Theoretical pI	: 6.95
Cell Strain	: <i>Rosetta (DE3) pLysS</i>
Protein Description	: The Lactate dehydrogenase protein (LDH) is critical for the conversion of lactate to pyruvate in anaerobic glycolysis pathway to generate ATP for the malarial parasite to survive in the human host. Sequence identity of LDH from <i>Plasmodium falciparum</i> is 90-92% identical to LDH from <i>Plasmodium vivax</i> , <i>malariae</i> and <i>ovale</i> , with significant differences in their enzyme kinetics for substrates and inhibitors at the co-factor binding site.
Application	: Wide range of assays such as enzymatic assay, immunoassay, protein-protein interaction assay. Note: optimal working dilution should be determined by the user.
Restriction	: This product is for research use only. It is not intended for use in humans.

FORMULATION AND STORAGE

Form	: Liquid
Purity	: 92% as determined by SDS-PAGE
Protein Concentration	: 1.63 mg/mL (Lot specific)
Storage Buffer	: Phosphate Buffer Saline + 5% Glycerol
Storage Condition	: For longer term storage aliquot in small volumes and store at -80°C. Repeated freeze-thaw cycles not recommended.

Shipping Condition : Shipped on dry ice. Stored at -80°C upon receipt.

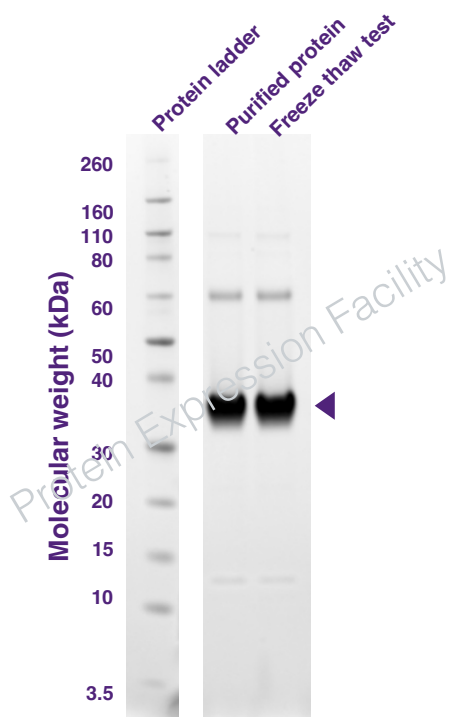
COMPREHENSIVE QUALITY CONTROL

Protein Purity : Determined by SDS-PAGE

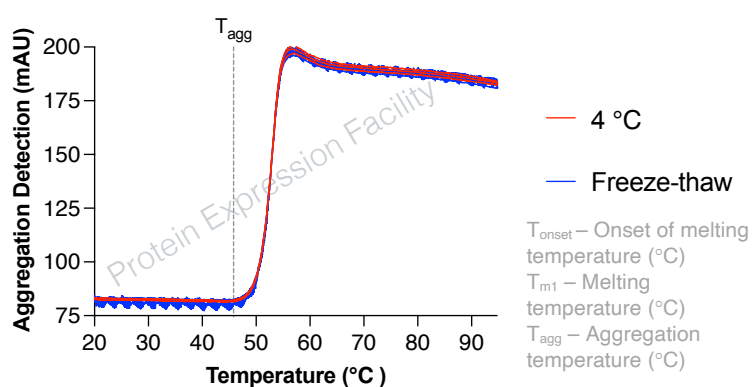
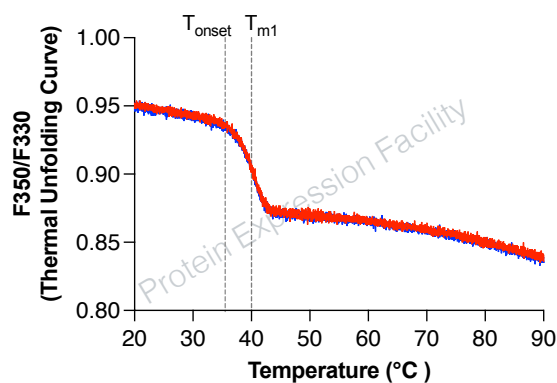
Protein Stability : Freeze-thaw stability by SDS-PAGE
Protein unfolding and aggregation onset temperature
determined by differential scanning fluorimetry



QUALITY CONTROL DATA



SDS PAGE Analysis
(Denatured and reduced)



Nano Differential Scanning Fluorimetry Analysis

Recipients using LDH-Pf from Protein Expression Facility must acknowledge the facility's contribution in written publications and/or oral presentations.