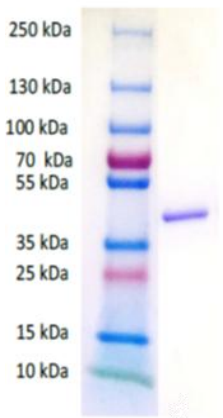
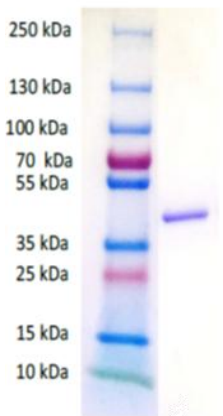


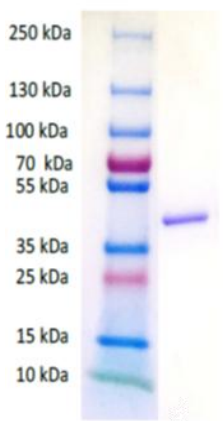
# pLDH

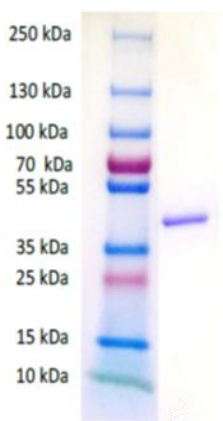
## Background

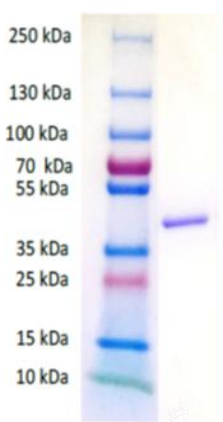
Malaria is the most lethal parasitic disease in the world, annually affecting approximately 500 million people and resulting in 800,000 deaths, mostly in African sub-Saharan countries [1]. The disease is transmitted most commonly by an infected female *Anopheles* mosquito. Five species of *Plasmodium* can infect and be spread among humans.[2] Most deaths are caused by *P. falciparum* because *P. vivax*, *P. ovale*, and *P. malariae* generally cause a milder form of malaria [2] [3]. Malaria is typically diagnosed by the microscopic examination of blood using blood films, or with antigen-based rapid diagnostic tests [2]. There are currently over 20 such tests commercially available (WHO product testing 2008). Antigens suitable as target for Rapid Diagnostic Tests (RDTs) are Glutamate dehydrogenase (pGluDH), Histidine Rich Protein

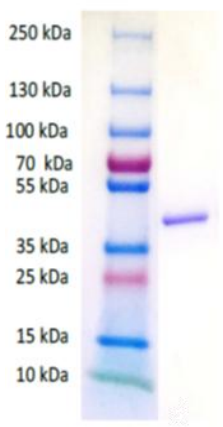
Pf pLDH ( <i>Plasmodium falciparum</i> )		
	Description	<i>P. falciparum</i> lactate dehydrogenase (PfLDH) is a oxidoreductase [EC 1.1.1.27] [4]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. falciparum</i> [5]. <i>Plasmodium</i> LDH (pLDH) from <i>P. vivax</i> , <i>P. malariae</i> , and <i>P. ovale</i> exhibit 90-92% identity to PfLDH from <i>P. falciparum</i> [6].
	Technical Data	This protein is recombinant <b><i>Plasmodium falciparum</i></b> L-lactate dehydrogenase expressed in <i>Escherichia coli</i> . It is purified by Immobilized metal ion affinity chromatography. The theoretical size of the protein is 36Kda. This protein is 6 His tagged.
	Order	<b>Pf pLDH in solution</b> A130112-02 : 1mg/ml <b>Pf pLDH Lyophilised</b> A130112-02 – L : 0,1mg/vial <b>Other quantities and buffer available on request</b>

Pv pLDH ( <i>Plasmodium vivax</i> )		
	Description	<i>P. Vivax</i> lactate dehydrogenase (PvLDH) is a oxidoreductase [EC 1.1.1.27]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. Vivax</i> . <i>Plasmodium</i> LDH (pLDH) from <i>P. Falciparum</i> , <i>P. malariae</i> , and <i>P. ovale</i> exhibit 90-92% identity to PvLDH from <i>P. Vivax</i> .
	Technical Data	This protein is recombinant <b><i>Plasmodium Vivax</i></b> L- lactate dehydrogenase expressed in <i>Escherichia coli</i> . It is purified by Immobilized metal ion affinity chromatography. The protein theoretical size is 36Kda. This protein is 6 His tagged.
	Order	<b>Pv pLDH in solution</b> A130112-03 : 1mg/ml <b>Pv pLDH Lyophilised</b> A130112-03 – L : 0,1mg/vial <b>Other quantities and buffer available on request</b>

Pm pLDH ( <i>Plasmodium malariae</i> )		
	Description	<i>P. Malariae</i> lactate dehydrogenase (PmLDH) is a oxidoreductase [EC 1.1.1.27]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. Malariae</i> . ( <i>Plasmodium</i> LDH (pLDH) from <i>P. Falciparum</i> , <i>P. Vivax</i> , and <i>P. ovale</i> exhibit 90-92% identity to PvLDH from <i>P. Malariae</i> ).
	Technical Data	This protein is recombinant <b><i>Plasmodium Malariae</i></b> L-lactate dehydrogenase expressed in <i>Escherichia coli</i> . It is purified by Immobilized metal ion affinity chromatography. The protein theoretical size is 36Kda. This protein is 6 His tagged.
	Order	<b>Pm pLDH in solution</b> A130112-05 : 1mg/ml <b>Pm pLDH Lyophilised</b> A130112-05 – L : 0,1mg/vial <b>Other quantities and buffer available on request</b>

Poc pLDH ( <i>Plasmodium ovale curtisi</i> )		
	Description	<i>P. Ovale Curtisi</i> lactate dehydrogenase (Poc LDH) is a oxidoreductase [EC 1.1.1.27]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. ovale curtisi</i> . ( <i>Plasmodium</i> LDH (pLDH) from <i>P. Falciparum</i> , <i>P. Vivax</i> , and <i>P. Malariae</i> exhibit 90-92% identity to PvLDH from <i>P. ovale curtisi</i> ).
	Technical Data	This protein is recombinant <b><i>Plasmodium Ovale Curtitsi</i></b> L-lactate dehydrogenase expressed in <i>Escherichia coli</i> . It is purified by Immobilized metal ion affinity chromatography. The protein theoretical size is 36Kda. This protein is 6 His tagged.
	Order	<b>Poc pLDH in solution</b> A130112-06 : 1mg/ml <b>Poc pLDH Lyophilised</b> A130112-06 – L : 0,1mg/vial <b>Other quantities and buffer available on request</b>

Pow pLDH ( <i>Plasmodium ovale wallikeri</i> )		
	Description	<i>P. Ovale Wallikeri</i> lactate dehydrogenase (Pow LDH) is a oxidoreductase [EC 1.1.1.27]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. ovale Wallikeri</i> . ( <i>Plasmodium</i> LDH (pLDH) from <i>P. Falciparum</i> , <i>P. Vivax</i> , and <i>P. Malariae</i> exhibit 90-92% identity to PvLDH from <i>P. ovale Wallikeri</i> ).
	Technical Data	This protein is recombinant <b><i>Plasmodium Ovale Wallikeri</i></b> L-lactate dehydrogenase expressed in <i>Escherichia coli</i> . It is purified by Immobilized metal ion affinity chromatography. The protein theoretical size is 36Kda. This protein is 6 His tagged.
	Order	<b>Pow pLDH in solution</b> A130112-07 : 1mg/ml <b>Pow pLDH Lyophilised</b> A130112-07 – L : 0,1mg/vial <b>Other quantities and buffer available on request</b>

Pk pLDH (Plasmodium knowlesi)		
	Description	<p><i>P. Knowlesi</i> lactate dehydrogenase (Pow LDH) is a oxidoreductase [EC 1.1.1.27]. It is the last enzyme of the glycolytic pathway, essential for ATP generation and one of the most abundant enzymes expressed by <i>P. Knowlesi</i> (<i>Plasmodium</i> LDH (pLDH) from <i>P. Falciparum</i>, <i>P. Vivax</i>, and <i>P. Malariae</i>) exhibit 90-92% identity to PvLDH from <i>P. Knowlesi</i>.</p>
	Technical Data	<p>This protein is recombinant <b><i>Plasmodium Knowlesi</i></b> L-lactate dehydrogenase expressed in <i>Escherichia coli</i>. It is purified by Immobilized metal ion affinity chromatography.</p> <p>The protein theoretical size is 36Kda.</p> <p>This protein is 6 His tagged.</p>
	Order	<p><b>Pk pLDH in solution</b> A130112-08 : 1mg/ml</p> <p><b>Pk pLDH Lyophilised</b> A130112-08 – L : 0,1mg/vial</p> <p><b>Other quantities and buffer available on request</b></p>

## Analytical

- 1) Western Blot/Dot Blot
- 2) ELISA
- 3) Lateral flow assay control

## Application

This product can be used by RDT manufacturers

## Literature

- 1) W.H.O. (2010) World Malaria Report 2010.