

Human Cardiac Phospholamban (PLN) ELISA Kit | PLN elisa kit

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CATALOG #
AAA331384

REACTIVITY
Human

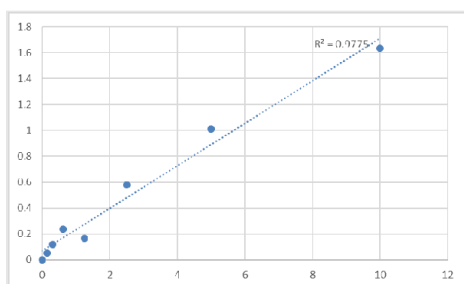
PRODUCT SYNONYMS

Cardiac Phospholamban (PLN); Human Cardiac Phospholamban (PLN) ELISA Kit; PLN; CMD1P; PLB; cardiac phospholamban; PLN elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Human Cardiac phospholamban (PLN) ELISA Kit has high sensitivity and excellent specificity for detection of Human PLN. No significant cross-reactivity or interference between Human PLN and analogues was observed.
Sequence Length	52
Assay Type	Sandwich ELISA (Quantitative)
Samples	Cell Culture Supernatants, Serum, Plasma, Other Biological Fluids
Detection Method	Colorimetric
Usage Notes	* Do not mix components from different kit lots or use reagents beyond the kit expiration date. * Allow all reagents to warm to room temperature for at least 30 minutes before opening. * Pre-rinse the pipet tip with reagent, use fresh pipet tips for each sample, standard and reagent to avoid contamination. * Unused wells must be kept desiccated at 4 degree C in the sealed bag provided. * Mix Thoroughly is very important for the result. It is recommended using low frequency oscillator or slight hand shaking every 10 minutes. * It is recommended that all samples and standards be assayed in duplicate or triplicate.
Preparation and Storage	Store at 2-8 degree C.

IMAGES



Standard Curve (Sample)

Fig.1. Human Cardiac phospholamban (PLN) Standard Curve.

ADDITIONAL INFORMATION

Related Product Information for PLN elisa kit	Description: This Human Cardiac phospholamban (PLN) ELISA Kit employs a two-site sandwich ELISA to quantitate PLN in samples. An antibody specific for PLN has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any PLN present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for PLN is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of PLN bound in the initial step. The color development is stopped and the intensity of the color is measured. Background: Phospholamban is a 52 amino acid integral membrane protein that regulates the Ca2 pump in cardiac muscle and skeletal muscle cells. When phospholamban is phosphorylated by protein kinase A (PKA) its ability to inhibit the sarcoplasmic reticulum calcium pump (SERCA) is lost. Thus, activators of PKA, such as the beta-adrenergic agonist epinephrine (released by sympathetic stimulation) may enhance the rate of cardiac myocyte relaxation. Additionally, since SERCA is more active, the next action potential will cause an increased release of calcium resulting in increased contraction (positive inotropic effect). When phospholamban is not phosphorylated, such as when PKA is inactive, it can interact with and inhibit SERCA.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4505887
NCBI GeneID	5350
NCBI Accession #	NP_002658.1
NCBI GenBank Nucleotide #	NP_002658.1
UniProt Accession #	P26678
NCBI Official Full Name	cardiac phospholamban
NCBI Official Synonym Full Names	phospholamban
NCBI Official Symbol	PLN
NCBI Official Synonym Symbols	PLB; CMD1P; CMH18
NCBI Protein Information	cardiac phospholamban
UniProt Protein Name	Cardiac phospholamban
UniProt Gene Name	PLN
UniProt Synonym Gene Names	PLB; PLB
UniProt Entry Name	PPLA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.