

ARG82415 Human P4HB ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82415-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82415-002	Standard	2 X 10 ng/vial	4°C
ARG82415-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82415-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82415-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82415-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82415-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82415-008	25X Wash buffer	20 ml	4°C
ARG82415-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG82415-010	STOP solution	10 ml (Ready to use)	4°C
ARG82415-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG82415 Human P4HB ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human P4HB in serum, plasma (EDTA, heparin) and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	P4HB
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	46.9 pg/ml
Sample Type	Serum, plasma (EDTA, heparin) and cell culture supernatants.
Standard Range	93.8 - 6000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 5.7% Inter-Assay CV: 6.5%

Alternate Names Cellular thyroid hormone-binding protein; CLCRP1; PHDB; GIT; p55; P4Hbeta; PDIA1; ERBA2L; PROHB; PDI; DSI; Protein disulfide-isomerase; PO4DB; EC 5.3.4.1; Prolyl 4-hydroxylase subunit beta; PO4HB

Application Instructions

Assay Time ~ 5 hours

Properties

Form 96 well

Storage instruction Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol P4HB

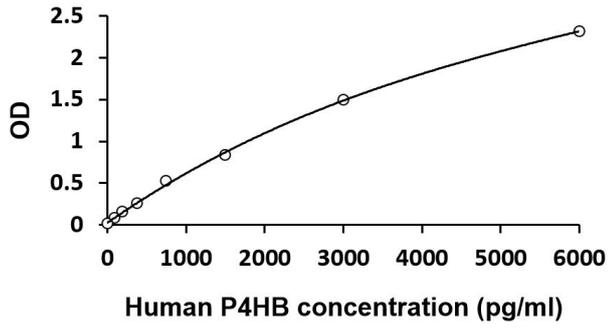
Gene Full Name prolyl 4-hydroxylase, beta polypeptide

Background This gene encodes the beta subunit of prolyl 4-hydroxylase, a highly abundant multifunctional enzyme that belongs to the protein disulfide isomerase family. When present as a tetramer consisting of two alpha and two beta subunits, this enzyme is involved in hydroxylation of prolyl residues in procollagen. This enzyme is also a disulfide isomerase containing two thioredoxin domains that catalyze the formation, breakage and rearrangement of disulfide bonds. Other known functions include its ability to act as a chaperone that inhibits aggregation of misfolded proteins in a concentration-dependent manner, its ability to bind thyroid hormone, its role in both the influx and efflux of S-nitrosothiol-bound nitric oxide, and its function as a subunit of the microsomal triglyceride transfer protein complex. [provided by RefSeq, Jul 2008]

Function This multifunctional protein catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. May therefore cause structural modifications of exofacial proteins. Inside the cell, seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, facilitates aggregation (anti-chaperone activity). May be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. Also acts a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP. [UniProt]

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Cellular Localization Endoplasmic reticulum lumen. Melanosome. Cell membrane; Peripheral membrane protein. Note=Highly abundant. In some cell types, seems to be also secreted or associated with the plasma membrane, where it undergoes constant shedding and replacement from intracellular sources. Localizes near CD4-enriched regions on lymphoid cell surfaces. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Colocalizes with MTTP in the endoplasmic reticulum. [UniProt]



ARG82415 Human P4HB ELISA Kit standard curve image

ARG82415 Human P4HB ELISA Kit results of a typical standard run with optical density reading at 450 nm.