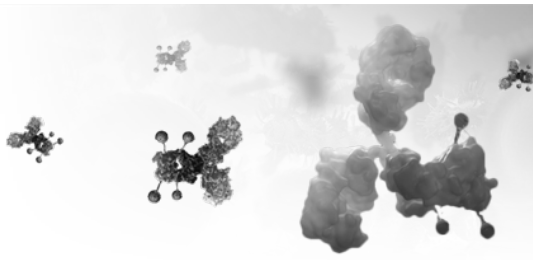

# Mouse Anti-Human P4HB monoclonal antibody, clone NN19 (CABT-ZB892)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

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| **Specificity** | It reacts with Human P4HB |
| **Target** | P4HB |
| **Immunogen** | Recombinant Human P4HB protein |
| **Isotype** | IgG |
| **Source/Host** | Mouse |
| **Species Reactivity** | Human |
| **Clone** | NN19 |
| **Purification** | Protein A purified |
| **Conjugate** | Unconjugated |
| **Applications** | ELISA, ELISA(det), IHC-P<br>We recommend the following for sandwich ELISA (Capture - Detection):<br>CABT-ZB523 - CABT-ZB892<br>This antibody will detect P4HB in antibody pair set. [ABPR-ZB099] |
| **Preparation** | This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human P4HB / ERBA2L. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography. |
| **Format** | Purified, Liquid |
| **Concentration** | Lot specific |

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| **Size** | 50 µL, 100 µL, 200 µL, 1 mL |
| **Buffer** | PBS |
| **Preservative** | None |
| **Storage** | This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles. |
| **Ship** | Wet ice |

# BACKGROUND

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| **Introduction** | Protein disulfide-isomerase, also known as Cellular thyroid hormone-binding protein, Prolyl 4-hydroxylase subunit beta, p55 and P4HB, is a peripheral membrane protein that belongs to the protein disulfide isomerase family. P4HB is highly abundant. In some cell types, it seems to be also secreted or associated with the plasma membrane, where it undergoes constant shedding and replacement from intracellular sources. P4HB localizes near CD4-enriched regions on lymphoid cell surfaces. It is identified by mass spectrometry in melanosome fractions from stage I to stage IV. P4HB reduces and may activate fusogenic properties of HIV-1 gp12 surface protein, thereby enabling HIV-1 entry into the cell. P4HB catalyzes the formation, breakage and rearrangement of disulfide bonds. At the cell surface, it seems to act as a reductase that cleaves disulfide bonds of proteins attached to the cell. P4HB may therefore cause structural modifications of exofacial proteins. Inside the cell, it seems to form/rearrange disulfide bonds of nascent proteins. At high concentrations, P4HB functions as a chaperone that inhibits aggregation of misfolded proteins. At low concentrations, it facilitates aggregation (anti-chaperone activity). P4HB may be involved with other chaperones in the structural modification of the TG precursor in hormone biogenesis. It also acts as a structural subunit of various enzymes such as prolyl 4-hydroxylase and microsomal triacylglycerol transfer protein MTTP. |
| **Keywords** | P4HB; prolyl 4-hydroxylase, beta polypeptide; ERBA2L, PO4DB, procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide; procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide (protein disulfide isomerase associated 1) |

# GENE INFORMATION

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| **Synonyms** | P4HB; prolyl 4-hydroxylase, beta polypeptide; ERBA2L, PO4DB, procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide; procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide (protein disulfide isomerase associated 1); procollagen proline, 2 oxoglutarate 4 dioxygenase (proline 4 hydroxylase), beta polypeptide (protein disulfide isomerase; thyroid hormone binding protein p55); protein disulfide-isomerase; collagen prolyl 4 hydroxylase beta; DSI; GIT |

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| **Entrez Gene ID** | 5034 |
| **UniProt ID** | P07237 |

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