

Human TPO CLIA Kit | TPO clia kit

TPO (Human) LumiAb ELISA Kit

CATALOG #
AAA318563

REACTIVITY
Human

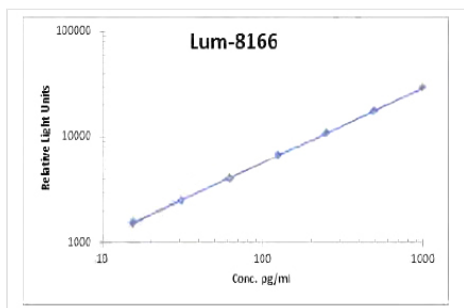
PRODUCT SYNONYMS

TPO; TPO (Human) LumiAb ELISA Kit; Human TPO; Thyroid peroxidase; TPO clia kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The LumiAb Human MMP-9 ELISA is capable of recognizing both recombinant and naturally produced Human MMP-9 proteins. The antigens listed below were tested at 50 ng/ml and did not exhibit significant cross reactivity or interference.
Sequence Length	933
Assay Type	Quantitative Sandwich
Sensitivity	8 pg/ml.
Preparation and Storage	Store at 4 degree C for 6 months.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for TPO clia kit	Principle of the Assay: The LumiAb Human Total MMP-9 Chemiluminescent ELISA Kit contains the components necessary for quantitative determination of natural or recombinant Human Total MMP-9 concentrations within any experimental sample including cell lysates, serum and plasma. This particular immunoassay utilizes the quantitative technique of a "Sandwich" Enzyme-Linked Immunosorbent Assay (ELISA) where the target protein (antigen) is bound in a "sandwich" format by the primary capture antibodies coated to each well-bottom and the secondary detection antibodies added subsequently by the investigator. The capture antibodies coated to the bottom of each well are specific for a particular epitope on Human Total MMP-9 while the user-added detection antibodies bind to epitopes on the captured target protein. Amid each step of the procedure, a series of wash steps must be performed to ensure the elimination of non-specific binding between proteins to other proteins or to the solid phase. After incubation and "sandwiching" of the target antigen, a peroxidase enzyme is conjugated to the constant heavy chain of the secondary antibody (either covalently or via Avidin/Streptavidin-Biotin interactions), allowing for a sensitive luminescent reaction to ensue upon substrate addition. When the Peroxide Enhancer solution is added, the reaction catalyzed by peroxidase yields light that is representative of the antigen concentration. After a brief incubation, the microplate can be read with a luminometer, allowing for generation of a standard curve and subsequent determination of protein concentration!!Background/Introduction: Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. The enzyme encoded by this gene degrades type IV and V collagens. Human total MMP-9 may play an essential role in local proteolysis of the extracellular matrix and in leukocyte migration and could play a role in bone osteoclastic resorption. MMP-9 cleaves KISS1 at a Gly- -Leu bond while it cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments in addition to cleavage of gelatin types I and V and collagen types IV and V. The proteinase degrades fibronectin, but not laminin or Pz-peptide. The enzyme is inhibited by histatin-3 1/24 (histatin-5) and inhibited by ECM1. MMP-9 exists as a monomer or a disulfide-linked homodimer and also as heterodimer with a 25 kDa protein. Macrophages and transformed cell lines produce only the monomeric form. This proteinase interacts with ECM1 and is activated by 4-aminophenylmercuric acetate and phorbol ester. Furthermore, it is up-regulated by ARHGEF4, SPATA13 and APC via the JNK signaling pathway in colorectal tumor cells. Processing of the precursor yields different active forms of 64, 67 and 82 kDa. Sequentially processing by MMP3 yields the 82 kDa matrix metalloproteinase-9. MMP-9 can be N- and O-glycosylated. Defects in MMP9 may be a cause of susceptibility to intervertebral disc disease (IDD); also known as lumbar disk herniation (LDH). IDD is one of the most common musculo-skeletal disorders and the predominant cause of low-back pain and unilateral leg pain. Defects in MMP9 are the cause of metaphyseal anadysplasia type 2 (MANDP2). Metaphyseal anadysplasia consists of an abnormal bone development characterized by severe skeletal changes that, in contrast with the progressive course of most other skeletal dysplasias, resolve spontaneously with age. Clinical characteristics are evident from the first months of life and include slight shortness of stature and a mild varus deformity of the legs. Patients attain a normal stature in adolescence and show improvement or complete resolution of varus deformity of the legs and rhizomelic micromelia.
Product Categories/Family for TPO clia kit	Luminometer Sandwich ELISA

NCBI AND UNIPROT INFORMATION

NCBI GI #	28558982
NCBI GeneID	7173
NCBI Accession #	NP_000538.3
NCBI GenBank Nucleotide #	NM_000547.5
UniProt Accession #	P07202
NCBI Official Full Name	thyroid peroxidase isoform a
NCBI Official Synonym Full Names	thyroid peroxidase
NCBI Official Symbol	TPO
NCBI Official Synonym Symbols	MSA; TPX; TDH2A
NCBI Protein Information	thyroid peroxidase

UniProt Protein Name	Thyroid peroxidase
UniProt Gene Name	TPO
UniProt Synonym Gene Names	TPO
UniProt Entry Name	PERT_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.

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Online datasheet: <https://www.aaabiotech.com/human-clia-kits/tpo/318563>