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# Rabbit Anti-Latency-associated peptide antibody

SL4908R

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| **Product Name:** | Latency-associated peptide |
| **Chinese Name:** | 转化生长因子β/TGFβ抗体 |
| **Alias:** | LAP; Latency-associated peptide; ARVD; BSC 1 cell growth inhibitor; CED; Cetermin; Diaphyseal dysplasia 1 progressive; DPD 1; DPD1; G TSF; Glioblastoma derived T cell suppressor factor; LAP; Polyergin; TGF beta 1; TGF beta 1 protein; TGF beta; TGF beta1; TGF-beta-1; TGFB 1; TGFB; TGFB1; TGFB1_HUMAN; TGFbeta; Transforming growth factor; Transforming growth factor beta 1; Transforming Growth Factor beta. |
| **Organism Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **React Species:** | Human, |
| **Applications:** | WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Molecular weight:** | 30/44kDa |
| **Cellular localization:** | Extracellular matrixSecretory protein |
| **Form:** | Lyophilized or Liquid |
| **Concentration:** | 1mg/ml |
| **immunogen:** | KLH conjugated synthetic peptide derived from human Latency-associated peptide:101-200/390 |
| **Lsotype:** | IgG |
| **Purification:** | affinity purified by Protein A |
| **Storage Buffer:** | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **PubMed:** | PubMed |
| **Product Detail:** | This gene encodes a member of the transforming growth factor beta (TGFB) family of |

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| | cytokines, which are multifunctional peptides that regulate proliferation, differentiation, adhesion, migration, and other functions in many cell types. Many cells have TGFB receptors, and the protein positively and negatively regulates many other growth factors. The secreted protein is cleaved into a latency-associated peptide (LAP) and a mature TGFB1 peptide, and is found in either a latent form composed of a TGFB1 homodimer, a LAP homodimer, and a latent TGFB1-binding protein, or in an active form composed of a TGFB1 homodimer. The mature peptide may also form heterodimers with other TGFB family members. This gene is frequently upregulated in tumor cells, and mutations in this gene result in Camurati-Engelmann disease.<br><br>**Function:**<br>Multifunctional protein that controls proliferation, differentiation and other functions in many cell types. Many cells synthesize TGFB1 and have specific receptors for it. It positively and negatively regulates many other growth factors. It plays an important role in bone remodeling as it is a potent stimulator of osteoblastic bone formation, causing chemotaxis, proliferation and differentiation in committed osteoblasts.<br><br>**Subunit:**<br>Homodimer; disulfide-linked, or heterodimer with TGFB2. Secreted and stored as a biologically inactive form in the extracellular matrix in a 290 kDa complex (large latent TGF-beta1 complex) containing the TGFB1 homodimer, the latency-associated peptide (LAP), and the latent TGFB1 binding protein-1 (LTBP1). The complex without LTBP1 is known as the'small latent TGF-beta1 complex'. Dissociation of the TGFB1 from LAP is required for growth factor activation and biological activity. Release of the large latent TGF-beta1 complex from the extracellular matrix is carried out by the matrix metalloproteinase MMP3. May interact with THSD4; this interaction may lead to sequestration by FBN1 microfibril assembly and attenuation of TGFB signaling. Interacts with the serine proteases, HTRA1 and HTRA3: the interaction with either inhibits TGFB1-mediated signaling. The HTRA protease activity is required for this inhibition. Interacts with CD109, DPT and ASPN.<br><br>**Subcellular Location:**<br>Secreted, extracellular space, extracellular matrix.<br><br>**Tissue Specificity:**<br>Highly expressed in bone. Abundantly expressed in articular cartilage and chondrocytes and is increased in osteoarthritis (OA). Co-localizes with ASPN in chondrocytes within OA lesions of articular cartilage.<br><br>**Post-translational modifications:**<br>Glycosylated.<br>The precursor is cleaved into mature TGF-beta-1 and LAP, which remains non-covalently linked to mature TGF-beta-1 rendering it inactive.<br><br>**DISEASE:**<br>Defects in TGFB1 are the cause of Camurati-Engelmann disease (CE) [MIM:131300]; |

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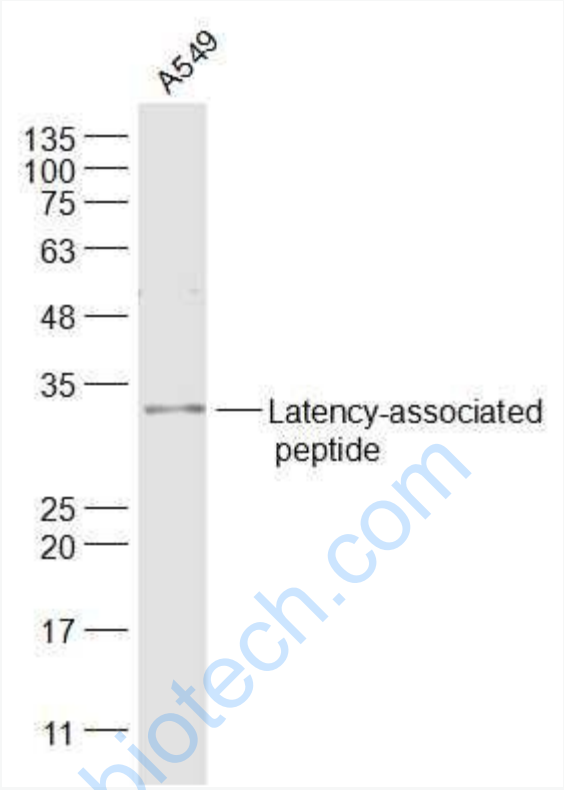
| | also known as progressive diaphyseal dysplasia 1 (DPD1). CE is an autosomal dominant disorder characterized by hyperostosis and sclerosis of the diaphyses of long bones. The disease typically presents in early childhood with pain, muscular weakness and waddling gait, and in some cases other features such as exophthalmos, facial paralysis, hearing difficulties and loss of vision.<br><br>**Similarity:**<br>Belongs to the TGF-beta family.<br><br>**SWISS:**<br>P01137<br><br>**Gene ID:**<br>7040<br><br>**Database links:**<br><br>Entrez Gene: 7040 Human<br><br>Entrez Gene: 21803 Mouse<br><br>Entrez Gene: 59086 Rat<br><br>Omim: 190180 Human<br><br>SwissProt: P01137 Human<br><br>SwissProt: P04202 Mouse<br><br>SwissProt: P17246 Rat<br><br>Unigene: 645227 Human<br><br>Unigene: 248380 Mouse<br><br>Unigene: 40136 Rat<br><br>**Important Note:**<br>This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |

**Picture:**




Sample:

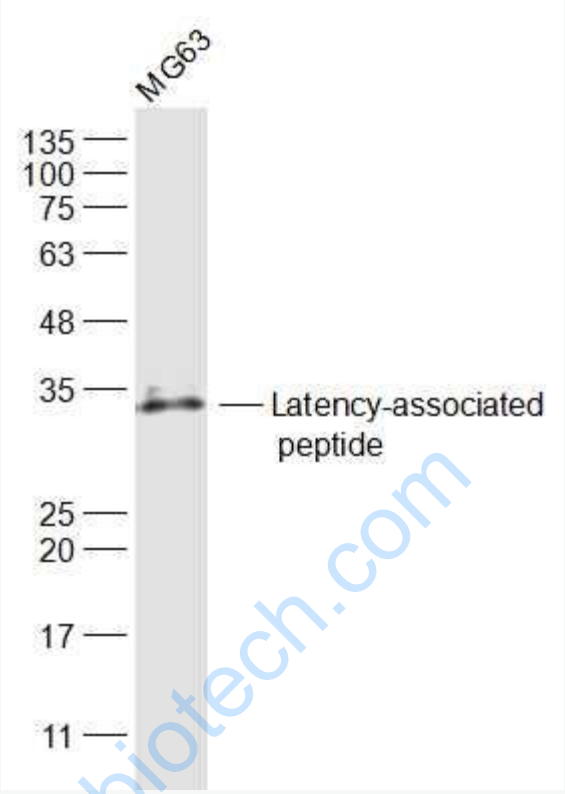
A549(Human) Cell Lysate at 30 ug

Primary: Anti-Latency-associated peptide (SL4908R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 30/44 kD

Observed band size: 30 kD




Sample:

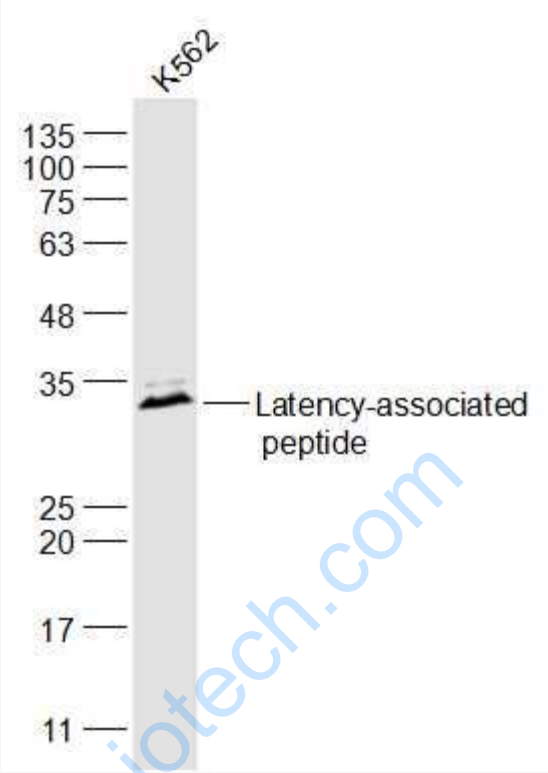
MG63(Human) Cell Lysate at 30 ug

Primary: Anti-Latency-associated peptide (SL4908R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 30/44 kD

Observed band size: 30 kD




Sample:

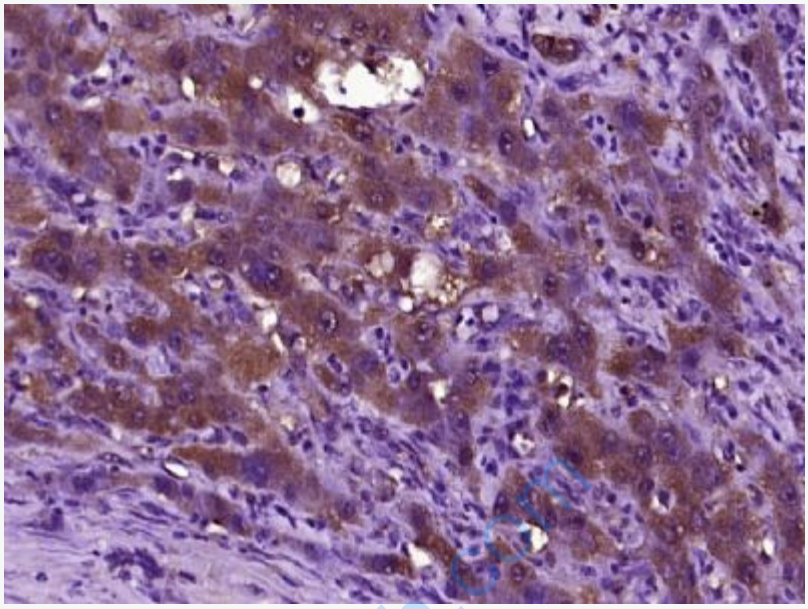
K562(Human) Cell Lysate at 30 ug

Primary: Anti-Latency-associated peptide (SL4908R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 30/44 kD

Observed band size: 30 kD



Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (TGFB1) Polyclonal Antibody, Unconjugated (SL4908R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.