

# Anti-Placental alkaline phosphatase Antibody [JM22-53]

## ET1705-21



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human
<b>Applications:</b>	WB, IF-Tissue, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 58 kDa
<b>Clone number:</b>	JM22-53

**Description:** Alkaline phosphatase, placental type also known as placental alkaline phosphatase (PLAP) is an allosteric enzyme that in humans is encoded by the ALPP gene. There are at least four distinct but related alkaline phosphatases: intestinal (ALPI), placental (this enzyme), placental-like (ALPPL2), and liver/bone/kidney (ALPL) (tissue-nonspecific). The first three are located together on chromosome 2, whereas the tissue-nonspecific form is located on chromosome 1. The coding sequence for this form of alkaline phosphatase is unique in that the 3' untranslated region contains multiple copies of an Alu family repeat. In addition, this gene is polymorphic and three common alleles (type 1, type 2, and type 3) for this form of alkaline phosphatase have been well-characterized. Alkaline phosphatase, placental type is a membrane-bound glycosylated dimeric enzyme, also referred to as the heat-stable form, that is expressed primarily in the placenta, although it is closely related to the intestinal form of the enzyme as well as to the placental-like form.

**Immunogen:** Synthetic peptide within Human Placental alkaline phosphatase aa 171-220 / 535.

**Positive control:** A431 cell lysate, SiHa cell lysate, AGS cell lysate, human placenta tissue lysates, human placenta tissue, human seminoma tissue.

**Subcellular location:** Cell membrane.

**Database links:** SwissProt: P05187 Human

**Recommended Dilutions:**

<b>WB</b>	1:500-1:5,000
<b>IF-Tissue</b>	1:500
<b>IHC-P</b>	1:50-1:400

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

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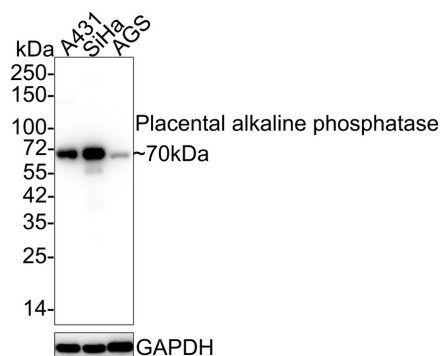
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## Images



**Fig1:** Western blot analysis of Placental alkaline phosphatase on different lysates with Rabbit anti-Placental alkaline phosphatase antibody (ET1705-21) at 1/5,000 dilution.

Lane 1: A431 cell lysate

Lane 2: SiHa cell lysate

Lane 3: AGS cell lysate

Lysates/proteins at 15 µg/Lane.

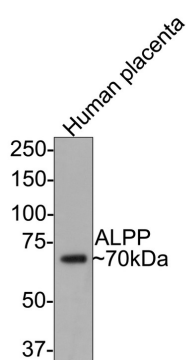
Predicted band size: 58 kDa

Observed band size: 70 kDa

Exposure time: 1 minute 14 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1705-21) at 1/5,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig2:** Western blot analysis of Placental alkaline phosphatase on human placenta tissue lysates with Rabbit anti-Placental alkaline phosphatase antibody (ET1705-21) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 58 kDa

Observed band size: 70 kDa

Exposure time: 30 seconds;

8% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1705-21) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

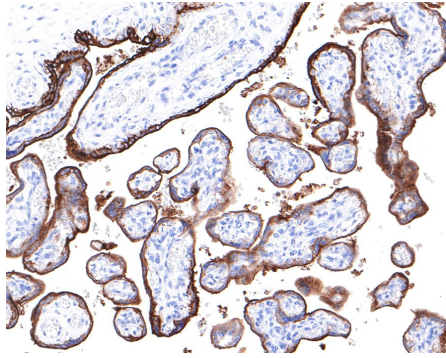
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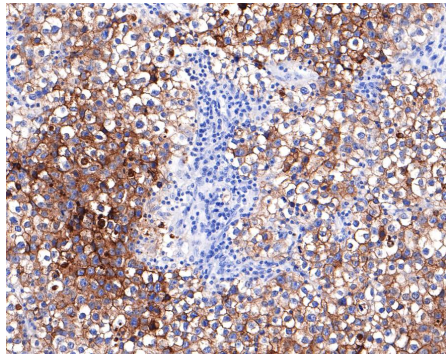
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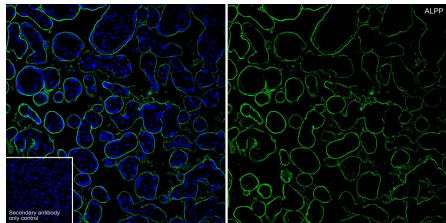
**Fig3:** Immunohistochemical analysis of paraffin-embedded human placenta tissue with Rabbit anti-Placental alkaline phosphatase antibody (ET1705-21) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1705-21) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig4:** Immunohistochemical analysis of paraffin-embedded human seminoma tissue with Rabbit anti-Placental alkaline phosphatase antibody (ET1705-21) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1705-21) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig5:** Application: IF-Tissue

Species: Human

Site: placenta

Sample: Paraffin-embedded section

Antibody concentration: 1/500

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Matsukawa K et al. Familial Amyotrophic Lateral Sclerosis-linked Mutations in Profilin 1 Exacerbate TDP-43-induced Degeneration in the Retina of *Drosophila melanogaster* through an Increase in the Cytoplasmic Localization of TDP-43. *J Biol Chem* 291:23464-23476 (2016).
2. Guo Z et al. A Legionella effector modulates host cytoskeletal structure by inhibiting actin polymerization. *Microbes Infect* N/A:N/A (2013).

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