

ALP (B-10): sc-365765

BACKGROUND

ALP (actinin-associated LIM protein), also known as PDLIM3 (PDZ and LIM domain protein 3) is a 364 amino acid protein that contains one LIM zinc-binding domain and one PDZ domain and localizes to the cytoplasm, as well as to myofiber Z-lines. Existing as three alternatively spliced isoforms, two of which exhibit tissue-specific expression in skeletal muscle and heart, ALP interacts with α -actinin-2 and, via this interaction, is thought to play a role in Actin filament organization, specifically regulating the association of Actin filaments arrays with muscle cells. The gene encoding ALP maps to a region on human chromosome 4 that is associated with facioscapulohumeral muscular dystrophy, suggesting that defects in the ALP gene may be involved in the pathogenesis of muscular dystrophy.

CHROMOSOMAL LOCATION

Genetic locus: PDLIM3 (human) mapping to 4q35.1; Pdlim3 (mouse) mapping to 8 B1.1.

SOURCE

ALP (B-10) is a mouse monoclonal antibody raised against amino acids 44-200 mapping within an internal region of ALP of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ALP (B-10) is available conjugated to agarose (sc-365765 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365765 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365765 PE), fluorescein (sc-365765 FITC), Alexa Fluor® 488 (sc-365765 AF488), Alexa Fluor® 546 (sc-365765 AF546), Alexa Fluor® 594 (sc-365765 AF594) or Alexa Fluor® 647 (sc-365765 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365765 AF680) or Alexa Fluor® 790 (sc-365765 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ALP (B-10) is recommended for detection of ALP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ALP siRNA (h): sc-72485, ALP siRNA (m): sc-72486, ALP shRNA Plasmid (h): sc-72485-SH, ALP shRNA Plasmid (m): sc-72486-SH, ALP shRNA (h) Lentiviral Particles: sc-72485-V and ALP shRNA (m) Lentiviral Particles: sc-72486-V.

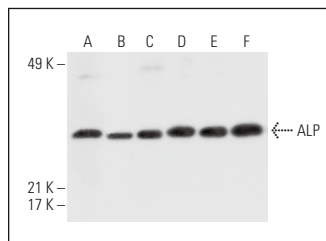
Molecular Weight of ALP: 39 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

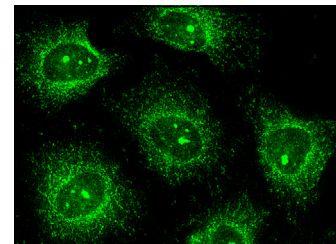
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



ALP (B-10): sc-365765. Western blot analysis of ALP expression in A549 (A), A-431 (B), HEK293 (C), HeLa (D), Jurkat (E) and K-562 (F) whole cell lysates.



ALP (B-10): sc-365765. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Wang, J., et al. 2018. Organic gallium treatment improves osteoporotic fracture healing through affecting the OPG/RANKL ratio and expression of serum inflammatory cytokines in ovariectomized rats. *Biol. Trace Elem. Res.* 183: 270-279.
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- Shi, X. and Zhang, Z. 2019. MicroRNA-135a-5p is involved in osteoporosis progression through regulation of osteogenic differentiation by targeting RUNX2. *Exp. Ther. Med.* 18: 2393-2400.
- Chen, B., et al. 2020. Abnormal expression of miR-135b-5p in bone tissue of patients with osteoporosis and its role and mechanism in osteoporosis progression. *Exp. Ther. Med.* 19: 1042-1050.
- Fan, C., et al. 2020. Cross-linked gelatin microsphere-based scaffolds as a delivery vehicle of MC3T3-E1 cells: *in vitro* and *in vivo* evaluation. *Mater. Sci. Eng. C Mater. Biol. Appl.* 108: 110399.
- Xie, H., et al. 2020. miR-1323 suppresses bone mesenchymal stromal cell osteogenesis and fracture healing via inhibiting BMP4/Smad4 signaling. *J. Orthop. Surg. Res.* 15: 237.
- Fang, M., et al. 2020. AntagomiR-29b inhibits vascular and valvular calcification and improves heart function in rats. *J. Cell. Mol. Med.* 24: 11546-11557.

RESEARCH USE

For research use only, not for use in diagnostic procedures.