

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 4q35.1 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.

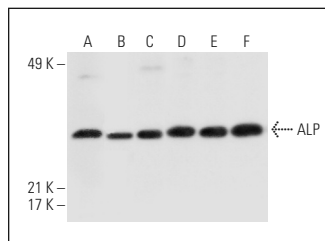
Molecular Weight of ALP: 39 kDa.

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

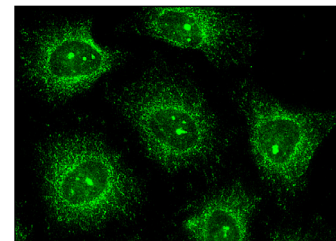
STORAGE

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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- Ying, M., et al. 2016. The E3 ubiquitin protein ligase MDM2 dictates all-*trans* retinoic acid-induced osteoblastic differentiation of osteosarcoma cells by modulating the degradation of RAR α . *Oncogene* 35: 4358-4367.
- 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.