

ARMS (26): sc-136462

BACKGROUND

Ankyrin repeat-rich membrane-spanning protein (ARMS), also designated kinase D-interacting substance 220 or Kidins220, is a highly conserved, 1,715 amino acid protein containing multiple domains, including 4 putative transmembrane domains and several ankyrin repeats. ARMS is expressed in regions rich in neurotrophin (Trk) and ephrin (Eph) receptors, such as the brain and neuroendocrine cells (where it concentrates at the tip of neurites) and in plastic areas of the adult brain. It is also detected in peripheral blood immature dendritic cells and PC12 cells. ARMS functions as a substrate for protein kinase D and is a downstream target for both Trk and Eph receptors. It is a highly conserved protein, which suggests it has an evolutionary conserved role. The gene encoding for the protein maps to chromosome 2p25.1.

REFERENCES

- Iglesias, T., et al. 2000. Identification and cloning of Kidins220, a novel neuronal substrate of protein kinase D. *J. Biol. Chem.* 275: 40048-40056.
- Kong, H., et al. 2001. An evolutionarily conserved transmembrane protein that is a novel downstream target of neurotrophin and ephrin receptors. *J. Neurosci.* 21: 176-185.
- Arevalo, J.C., et al. 2004. A unique pathway for sustained neurotrophin signaling through an ankyrin-rich membrane-spanning protein. *EMBO J.* 23: 2358-2368.
- Riol-Blanco, L., et al. 2004. The neuronal protein Kidins220 localizes in a raft compartment at the leading edge of motile immature dendritic cells. *Eur. J. Immunol.* 34: 108-118.
- Luo, S., et al. 2005. α -Syntrophin regulates ARMS localization at the neuromuscular junction and enhances EphA4 signaling in an ARMS-dependent manner. *J. Cell Biol.* 169: 813-824.
- <http://harvester.embl.de/harvester/Q9UL/Q9ULH0.htm>

CHROMOSOMAL LOCATION

Genetic locus: KIDINS220 (human) mapping to 2p25.1; Kidins220 (mouse) mapping to 12 A1.3.

SOURCE

ARMS (26) is a mouse monoclonal antibody raised against amino acids 1567-1757 of ARMS of rat origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ARMS (26) is available conjugated to agarose (sc-136462 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP, to HRP (sc-136462 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-136462 PE), fluorescein (sc-136462 FITC), Alexa Fluor[®] 488 (sc-136462 AF488), Alexa Fluor[®] 594 (sc-136462 AF594) or Alexa Fluor[®] 647 (sc-136462 AF647), 200 μ g/ml, for IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-136462 AF680) or Alexa Fluor[®] 790 (sc-136462 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

ARMS (26) is recommended for detection of ARMS of human and rat origin and KIDINS220 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for ARMS siRNA (h): sc-44511, ARMS siRNA (m): sc-44512, ARMS shRNA Plasmid (h): sc-44511-SH, ARMS shRNA Plasmid (m): sc-44512-SH, ARMS shRNA (h) Lentiviral Particles: sc-44511-V and ARMS shRNA (m) Lentiviral Particles: sc-44512-V.

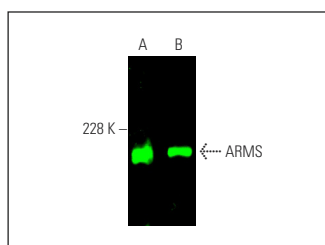
Molecular Weight of ARMS isoforms: 173-220 kDa.

Positive Controls: rat brain extract: sc-2392, K-562 whole cell lysate: sc-2203 or A549 cell lysate: sc-2413.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ARMS (26): sc-136462. Near-infrared western blot analysis of ARMS expression in K-562 (A) and A549 (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.