

ARD1 (A-10): sc-373920

BACKGROUND

The ARD1 subfamily of proteins belongs to the larger acetyltransferase family. N-terminal acetyltransferase complex ARD1, also designated Te2, forms a complex with NARG1, displaying N-terminal acetyltransferase activity. Without NARG1, ARD1 promotes hypoxia-inducible factor-1 α (HIF-1 α) degradation by displaying internal acetyltransferase activity towards HIF-1 α . This ubiquitously expressed protein, which is mainly cytoplasmic, is cleaved by caspases during apoptosis. ARD1 interacts with the ribosome, NARG1 and HIF-1 α . In its binding to HIF-1 α , ARD1 acts as a protein acetyltransferase by regulating its stability. In many cell lines, ARD1 is downregulated in response to hypoxia. ARD1 is expressed throughout the developing brain.

CHROMOSOMAL LOCATION

Genetic locus: NAA10 (human) mapping to Xq28; Naa10 (mouse) mapping to X A7.3.

SOURCE

ARD1 (A-10) is a mouse monoclonal antibody raised against amino acids 1-235 representing full length ARD1 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.

ARD1 (A-10) is available conjugated to agarose (sc-373920 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373920 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373920 PE), fluorescein (sc-373920 FITC), Alexa Fluor[®] 488 (sc-373920 AF488), Alexa Fluor[®] 546 (sc-373920 AF546), Alexa Fluor[®] 594 (sc-373920 AF594) or Alexa Fluor[®] 647 (sc-373920 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-373920 AF680) or Alexa Fluor[®] 790 (sc-373920 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

ARD1 (A-10) is recommended for detection of N-terminal acetyltransferase complex ARD1 subunit homolog 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 ARD1 siRNA (h): sc-44713, ARD1 siRNA (m): sc-44714, ARD1 shRNA Plasmid (h): sc-44713-SH, ARD1 shRNA Plasmid (m): sc-44714-SH, ARD1 shRNA (h) Lentiviral Particles: sc-44713-V and ARD1 shRNA (m) Lentiviral Particles: sc-44714-V.

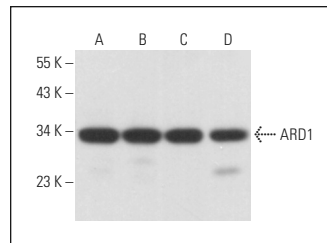
Molecular Weight of ARD1: 30 kDa.

Positive Controls: NTERA-2 cl.D1: sc-364181, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

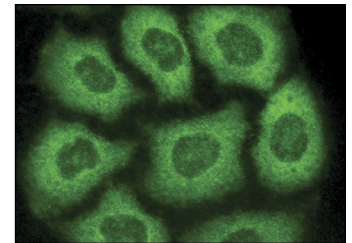
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



ARD1 (A-10): sc-373920. Western blot analysis of ARD1 expression in Jurkat (A), NTERA-2 cl.D1 (B), TT (C) and NIH/3T3 (D) whole cell lysates.



ARD1 (A-10): sc-373920. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Rong, Z., et al. 2016. Opposing functions of the N-terminal acetyltransferases Naa50 and NatA in sister-chromatid cohesion. *J. Biol. Chem.* 291: 19079-19091.
- Lee, C.C., et al. 2019. Naa10p inhibits beige adipocyte-mediated thermogenesis through N- α -acetylation of Pgc1 α . *Mol. Cell* 76: 500-515.e8.
- Zheng, J., et al. 2019. Inverse correlation between Naa10p and Pirh2 expression and the combined prognostic value in oral squamous cell carcinoma patients. *J. Oral Pathol. Med.* 48: 686-695.
- Lv, S., et al. 2021. Naa10p and IKK α interaction regulates EMT in oral squamous cell carcinoma via TGF- β 1/Smad pathway. *J. Cell. Mol. Med.* 25: 6760-6772.
- Fang, X., et al. 2023. ARD1 stabilizes NRF2 through direct interaction and promotes colon cancer progression. *Life Sci.* 313: 121217.
- Montemagno, C., et al. 2023. A group of novel VEGF splice variants as alternative therapeutic targets in renal cell carcinoma. *Mol. Oncol.* E-published.

STORAGE

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

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