

CARF (14.4): sc-101206

BACKGROUND

CARF (calcium-response factor), also known as ALS2CR8 (amyotrophic lateral sclerosis 2 chromosomal region candidate gene 8 protein) or NYD-SP24, is a 725 amino acid nuclear protein. Expressed in a wide variety of tissues with highest expression in the hippocampus, CARF is thought to be a transcription factor that associates with the p53 tumor suppression pathway. CARF cooperates, co-localizes and is co-regulated with ARF, an ADP-ribosylation factor, and, through this interaction, helps to mediate ARF-p53-induced apoptotic signaling. This apoptotic pathway is implicated in cell cycle control, proper cellular development, response to DNA damage and the aging process, suggesting that CARF participates in various events throughout the cell. Mutations in the gene encoding CARF may be implicated in familial amyotrophic lateral sclerosis 2, a fatal neurodegenerative disease that is characterized by upper and lower motor neuron damage. Two isoforms of CARF exist due to alternative splicing events.

REFERENCES

1. Hadano, S., et al. 2001. A gene encoding a putative GTPase regulator is mutated in familial amyotrophic lateral sclerosis 2. *Nat. Genet.* 29: 166-173.
2. Hasan, M.K., et al. 2002. CARF is a novel protein that cooperates with mouse p19ARF (human p14ARF) in activating p53. *J. Biol. Chem.* 277: 37765-37770.

CHROMOSOMAL LOCATION

Genetic locus: CARF (human) mapping to 2q33.2.

SOURCE

CARF (14.4) is a mouse monoclonal antibody raised against recombinant CARF of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CARF (14.4) is recommended for detection of CARF of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 CARF siRNA (h): sc-72795, CARF shRNA Plasmid (h): sc-72795-SH and CARF shRNA (h) Lentiviral Particles: sc-72795-V.

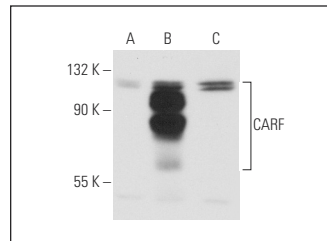
Molecular Weight of CARF: 84 kDa.

Positive Controls: CARF (h2): 293T Lysate: sc-159702, HeLa whole cell lysate: sc-2200 or AML-193 whole cell lysate: sc-364182.

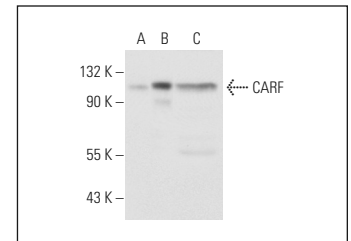
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

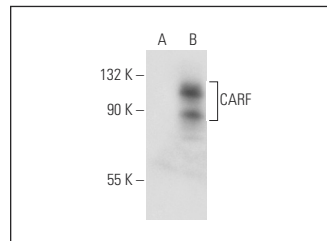
DATA



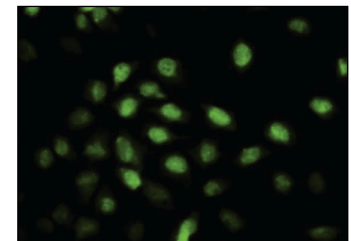
CARF (14.4): sc-101206. Western blot analysis of CARF expression in non-transfected 293T: sc-117752 (A), human CARF transfected 293T: sc-114989 (B) and HeLa (C) whole cell lysates.



CARF (14.4): sc-101206. Western blot analysis of CARF expression in non-transfected 293T: sc-117752 (A), human CARF transfected 293T: sc-170745 (B) and AML-193 (C) whole cell lysates.



CARF (14.4): sc-101206. Western blot analysis of CARF expression in non-transfected: sc-117752 (A) and human CARF transfected: sc-159702 (B) 293T whole cell lysates.



CARF (14.4): sc-101206. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization.

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.

PROTOCOLS

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