

GAP-43 (h4): 293T Lysate: sc-175907

BACKGROUND

GAP-43 (growth associated protein 43, B-50, PP46, calmodulin-binding protein P-57, neuromodulin, neuron growth-associated protein 43, protein F1) is a crucial component for regenerative response in the nervous system that is present at high levels in neuronal growth cones during development and axonal regeneration. GAP-43 is normally produced by neurons during developmental growth and axonal regeneration, but it is also expressed in specific regions of the normal adult nervous system. The neuron-specific ELAV/Hu family member, HuD, interacts with and stabilizes GAP-43 mRNA in developing neurons and leads to increased levels of GAP-43 protein. Heterozygous GAP-43 knockout mice with GAP-43 levels reduced by one-half display significant memory impairments in cued conditioning or on tests of nociceptive or auditory perception.

REFERENCES

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9. Shapiro, L.A., et al. 2004. Expression levels of cytoskeletal proteins indicate pathological aging of S100B transgenic mice: an immunohistochemical study of MAP-2, drebrin and GAP-43. *Brain Res.* 1019: 39-46.

CHROMOSOMAL LOCATION

Genetic locus: GAP43 (human) mapping to 3q13.31.

PRODUCT

GAP-43 (h4): 293T Lysate represents a lysate of human GAP-43 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GAP-43 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive GAP-43 antibodies. Recommended use: 10-20 µl per lane.

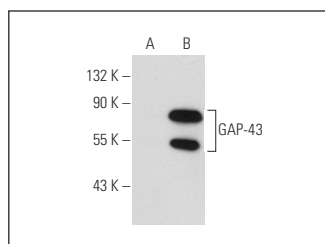
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GAP-43 (7B10): sc-33705 is recommended as a positive control antibody for Western Blot analysis of enhanced human GAP-43 expression in GAP-43 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

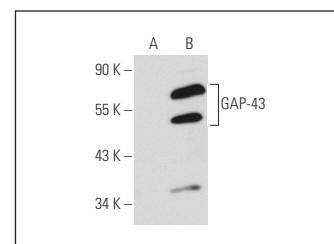
RECOMMENDED SUPPORT REAGENTS

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.

DATA



GAP-43 (7B10): sc-33705. Western blot analysis of GAP-43 expression in non-transfected: sc-117752 (A) and human GAP-43 transfected: sc-175907 (B) 293T whole cell lysates.



GAP-43 (B-5): sc-17790. Western blot analysis of GAP-43 expression in non-transfected: sc-117752 (A) and human GAP-43 transfected: sc-175907 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.