

RIC-3 (V-19): sc-54142

BACKGROUND

RIC-3 (resistant to inhibitors of cholinesterase-3) is the mammalian homolog of the RIC-3 protein from *C. elegans*. It contains two transmembrane domains and a coiled coil domain. RIC-3 is expressed in neurons and localizes to the endoplasmic reticulum where it plays a role in receptor folding and subunit assembly. In particular, RIC-3 is a nicotinic acetylcholine receptor nAChR-associated protein and it significantly enhances the subunit assembly, proper folding, stability and surface expression of several heteromeric and homomeric nAChR subtypes as well as some 5-HT₃ receptors. This suggests that RIC-3 may be an important regulator of receptor expression. Several isoforms exist for RIC-3 and they exhibit overlapping but distinct localizations. In addition, these isoforms may have various affects on receptor expression.

REFERENCES

- Halevi, S., et al. 2003. Conservation within the RIC-3 gene family. Effectors of mammalian nicotinic acetylcholine receptor expression. *J. Biol. Chem.* 278: 34411-34417.
- Cheng, A., et al. 2005. Cell surface expression of 5-hydroxytryptamine type 3 receptors is promoted by RIC-3. *J. Biol. Chem.* 280: 22502-22507.
- Castillo, M., et al. 2005. Dual role of the RIC-3 protein in trafficking of serotonin and nicotinic acetylcholine receptors. *J. Biol. Chem.* 280: 27062-27068.
- Lansdell, S.J., et al. 2005. RIC-3 enhances functional expression of multiple nicotinic acetylcholine receptor subtypes in mammalian cells. *Mol. Pharmacol.* 68: 1431-1438.
- Ben-Ami, H.C., et al. 2005. RIC-3 affects properties and quantity of nicotinic acetylcholine receptors via a mechanism that does not require the coiled-coil domains. *J. Biol. Chem.* 280: 28053-28060.
- Williams, M.E., et al. 2005. RIC-3 promotes functional expression of the nicotinic acetylcholine receptor $\alpha 7$ subunit in mammalian cells. *J. Biol. Chem.* 280: 1257-1263.

CHROMOSOMAL LOCATION

Genetic locus: RIC3 (human) mapping to 11p15.4; Ric3 (mouse) mapping to 7 E3.

SOURCE

RIC-3 (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RIC-3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-54142 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

RIC-3 (V-19) is recommended for detection of RIC-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

RIC-3 (V-19) is also recommended for detection of RIC-3 in additional species, including equine, bovine and porcine.

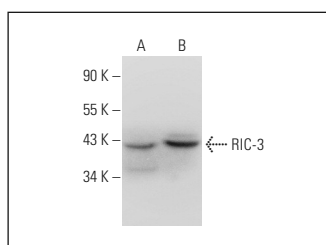
Suitable for use as control antibody for RIC-3 siRNA (h): sc-72301, RIC-3 siRNA (m): sc-72302, RIC-3 shRNA Plasmid (h): sc-72301-SH, RIC-3 shRNA Plasmid (m): sc-72302-SH, RIC-3 shRNA (h) Lentiviral Particles: sc-72301-V and RIC-3 shRNA (m) Lentiviral Particles: sc-72302-V.

Molecular Weight of RIC-3: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RIC-3 (V-19): sc-54142. Western blot analysis of RIC-3 expression in A549 (A) and WDR (B) whole cell lysates.

RESEARCH USE

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



Try **RIC-3 (G-8): sc-377408**, our highly recommended monoclonal alternative to RIC-3 (V-19).