SANTA CRUZ BIOTECHNOLOGY, INC.

DRAK1 (N-19): sc-9635

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

DAP (death associated protein) kinase and ZIP kinase are members of a novel protein kinase family, the members of which have the capacity to mediate apoptosis through their catalytic activities. DAP kinase contains a "death domain" and has been shown to mediate gamma interferon-induced apoptosis. The introduction of DAP kinase into highly metastatic carcinoma clones lacking DAP kinase expression was shown to result in the suppression of metastasis, thus linking suppression of apoptosis to metastasis. ZIP kinase contains a leucine zipper domain, which is necessary for homodimerization and for interaction with other leucine zipper proteins. ZIP kinase dimerizes with ATF-4, an ATF/CREB transcription factor family member that contains a leucine zipper. DRAK1 (DAP kinase-related apoptosis-inducing protein kinase 1) and DRAK2 are DAP kinase related proteins. DRAK1 and DRAK2 are localized to the nucleus, and overexpression of both DRAK proteins in NIH/3T3 cells induces morphological changes associated with apoptosis.

REFERENCES

1. Hai, T.W., et al. 1989. Transcription factor ATF cDNA clones: an extensive family of leucine zipper proteins able to selectively form DNA-binding heterodimers. Genes Dev. 3: 2083-2090.
2. Deiss, LP., et al. 1995. Identification of a novel serine/threonine kinase and a novel 15 kDa protein as potential mediators of the gamma interferon-induced cell death. Genes Dev. 9: 15-30.
3. Sakagami, H., et al. 1997. Molecular cloning and developmental expression of a rat homologue of death-associated protein kinase in the nervous system. Brain Res. Mol. Brain Res. 52: 249-256.
4. Inbal, B., et al. 1997. DAP kinase links the control of apoptosis to metastasis. Nature. 390: 180-184.
5. Kawai, T., et al. 1998. ZIP kinase, a novel serine/threonine kinase which mediates apoptosis. Mol. Cell Biol. 18: 1642-1651.
6. Sanjo, H., et al. 1998. DRAKs, novel serine/threonine kinases related to death-associated protein kinase that trigger apoptosis. J. Biol. Chem. 273: 29066-29071.

SOURCE

DRAK1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of DRAK1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-9635 P, (100 µg 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

DRAK1 (N-19) is recommended for detection of DRAK1 of 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).

Suitable for use as control antibody for DRAK1 siRNA (h): sc-38980, DRAK1 shRNA Plasmid (h): sc-38980-SH and DRAK1 shRNA (h) Lentiviral Particles: sc-38980-V.

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.

RESEARCH USE

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

PROTOCOLS

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