

## Siva (N-19): sc-7250

### BACKGROUND

A cytoplasmic domain of approximately 80 amino acids was identified in the apoptosis-mediating receptors TNFR1 and Fas. This region was determined to be necessary for the transduction of the apoptotic signal and was designated the "death domain". Other death domain-containing, but otherwise structurally unrelated, proteins have been identified on the basis of their ability to associate with the cytoplasmic domains of TNFR1 or FAS. FADD (also designated MORT1) and TRADD bind to Fas and TNFR1, respectively. RIP is a death domain-containing serine/threonine kinase that binds to TRADD. RAIDD (also designated CRADD) was identified as a RIP binding protein. Both RAIDD and FADD can associate with members of the caspase family, providing a link between the activation of the TNFRs and the triggering of the cysteine protease cascade. The death domain-containing protein SIVA binds to the TNFR family member CD27 and appears to play a role in CD27 mediated apoptosis.

### REFERENCES

1. Tartaglia, L.A., et al. 1993. A novel domain within the 55 kd TNF receptor signals cell death. *Cell* 74: 845-853.
2. Itoh, N., et al. 1993. A novel protein domain required for apoptosis. Mutational analysis of human Fas antigen. *J. Biol. Chem.* 268: 10932-10937.
3. Chinnaiyan, A.M., et al. 1995. FADD, a novel death domain-containing protein, interacts with the death domain of Fas and initiates apoptosis. *Cell* 81: 505-512.
4. Park, A., et al. 1996. Systematic mutational analysis of the death domain of the tumor necrosis factor receptor 1-associated protein TRADD. *J. Biol. Chem.* 271: 9858-9862.
5. Hsu, H., et al. 1996. TNF-dependent recruitment of the protein kinase RIP to the TNF receptor-1 signaling complex. *Immunity* 4: 387-396.
6. Cohen, G.M. 1997. Caspases: the executioners of apoptosis. *Biochem. J.* 326: 1-16.
7. Prasad, K.V., et al. 1997. CD27, a member of the tumor necrosis factor receptor family, induces apoptosis and binds to Siva, a proapoptotic protein. *Proc. Natl. Acad. Sci. USA* 94: 6346-6351.

### CHROMOSOMAL LOCATION

Genetic locus: SIVA1 (human) mapping to 14q32.33.

### SOURCE

Siva (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Siva 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-7250 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Siva (N-19) is recommended for detection of Siva 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 Siva siRNA (h): sc-37385, Siva shRNA Plasmid (h): sc-37385-SH and Siva shRNA (h) Lentiviral Particles: sc-37385-V.

Molecular Weight of Siva: 19 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.

### SELECT PRODUCT CITATIONS

1. Jang, H.S., et al. 2005. Flavonoids purified from *Rhus verniciflua* Stokes actively inhibit cell growth and induce apoptosis in human osteosarcoma cells. *Biochim. Biophys. Acta* 1726: 309-316.
2. Hwang, I.Y., et al. 2008. Plasma-arc generated light inhibits proliferation and induces apoptosis of human gingival fibroblasts in a dose-dependent manner. *Dent. Mater.* 24: 1036-1042.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Siva (H-9): sc-514375**, our highly recommended monoclonal alternative to Siva (N-19).