Siva-1 Antibody

Background: First identified as a pro-apoptotic protein that binds the cytoplasmic tail of the TNF receptor superfamily member CD27 (1), Siva-1 also binds several other TNFR family members including glucocorticoid-induced tumor necrosis factor receptor (GITR) and OX40 (1-3), as well as anti-apoptotic Bcl-2 family members Bcl-xL and Bcl-2 (4,5). Siva-1 is composed of a central death domain homology region, a C-terminal box-B-like ring finger followed by a zinc finger-like domain, and a unique N-terminal amphipathic helical region (SAH) (1,4). Studies have demonstrated that Siva-1 has the ability to induce cell death via both the extrinsic and intrinsic apoptotic pathways (1-8). The SAH domain of Siva-1 is responsible for the inhibition of the pro-survival activities of Bcl-xL and Bcl-2, leading to caspase-mediated cell death (4,5,8). Siva-1 plays a role in T cell signaling and homeostasis by inhibiting NF-κB activity, also resulting in apoptotic cell death (7,9). An alternative splice variant of Siva-1, Siva-2, lacks part of the SAH and death domains and is less effective at inducing apoptosis (12,5,8). Studies in xenografts have shown that down-regulation of Siva-1 inhibits tumorigenesis in response to p53 activation (10). Down-regulation of Siva-1 may also play a role in tumor metastasis through its regulation of the epithelial-mesenchymal transition (EMT) and cell migration (11). Overexpression of Siva-1 is implicated in several pathological conditions including acute ischemic injury (12) and Coxsackievirus infection (13).

Specificity/Sensitivity: Siva-1 Antibody recognizes endogenous levels of total Siva-1 protein. This antibody does not cross-react with Siva-2. This antibody cross-reacts with a protein of unknown origin at ~70 kDa.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro71 of human Siva-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at −20°C.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:50

For product specific protocols please see the web page for this product at www.cellsignal.com.

Background References:

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Western blot analysis of extracts from 293T cells, mock transfected (-), transfected with a construct expressing Myc/DDK-tagged full-length human Siva-1 (hSiva-1-Myc/DDK; +), or transfected with a construct expressing Myc/DDK-tagged full-length human Siva-2 (hSiva-2-Myc/DDK; +), using Siva-1 Antibody or Myc-Tag (71D10) Rabbit mAb #2278.