SANTA CRUZ BIOTECHNOLOGY, INC.

RAIDD (D-12): sc-374448

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A cytoplasmic domain of approximately 80 amino acids has been identified in the apoptosis-mediating receptors of TNF-R1 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 were identified on the basis of their ability to associate with the cytoplasmic domains of TNF-R1 or FAS. The receptor interacting protein RIP is a death domain-containing serine/threonine kinase which associates with FAS or the TNF-R1 binding protein TRADD. RAIDD (RIP-associated ICH-1/CED-3 homologous protein with a death domain) has been identified as a RIP binding protein that also associates with members of the caspase family, providing a link between activation of the TNF-Rs and the triggering of the cysteine protease cascade. The amino-terminal domain of RAIDD shares significant homology with the prodomain of ICH-1 and mediates the binding of RAIDD to this cysteine protease.

REFERENCES

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3. Hsu, H., et al. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NFκB activation. Cell 81: 495-504.
4. 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.
5. Stanger, B.Z., et al. 1995. RIP: a novel protein containing a death domain that interacts with FAS/APO-1 (CD95) in yeast and causes cell death. Cell 81: 513-523.
6. Baker, S.J., et al. 1996. Transducers of life and death: TNF receptor superfamily and associated proteins. Oncogene 12: 1-9.
7. Duan, H., et al. 1997. RAIDD is a new "death" adaptor molecule. Nature 385: 86-89.
8. Park, H.H., et al. 2006. Crystal structure of RAIDD death domain implicates potential mechanism of PIDDosome assembly. J. Mol. Biol. 357: 358-364.
9. Park, H.H., et al. 2007. Crystallization and preliminary X-ray crystallographic studies of the oligomeric death-domain complex between PIDD and RAIDD. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 63: 229-232.

CHROMOSOMAL LOCATION

Genetic locus: CRADD (human) mapping to 12q22.

SOURCE

RAIDD (D-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 173-199 at the C-terminus of RAIDD of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374448 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

RAIDD (D-12) is recommended for detection of RAIDD of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 RAIDD siRNA (h): sc-37387, RAIDD shRNA Plasmid (h): sc-37387-SH and RAIDD shRNA (h) Lentiviral Particles: sc-37387-V.

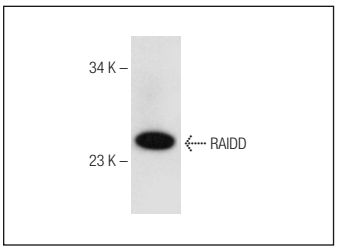
Molecular Weight of RAIDD: 22 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RAIDD (D-12): sc-374448. Western blot analysis of RAIDD expression in K-562 whole cell lysate.

STORAGE

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

PROTOCOLS

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