SANTA CRUZ BIOTECHNOLOGY, INC.

CNF1/2 (JC4): sc-52656

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cytotoxic necrotizing factor 1 (CNF1) is a toxin produced by uropathogenic and meningitis-causing *Escherichia coli*. CNF1 catalyzes the permanent activation of Rho-GTP-binding proteins (Rho, Rac and Cdc42) by deamidation or transglutamination, which induces a reorganization of the Actin cytoskeleton into large stress fibers as well as the multiplication of focal contact points. The toxin binds to cells and is subsequently internalized by endocytosis and transported into late endosomes. CNF1 may play a role in interfering with the occurrence of mitotic catastrophe (mammalian cell death caused by aberrant mitosis) and leads to aneuploidy and multinucleation. CNF2 is also produced by *Escherichia coli*, and it has been characterized in adherent cell lines as an inducer of cellular death, hyperploidy (multinucleation), and cytoskeletal reorganization. CNF2 affects cytoplasmic division, thereby removing the need for a completed mitosis before the initiation of another S-phase.

REFERENCES

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RESEARCH USE

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

SOURCE

CNF1/2 (JC4) is a mouse monoclonal antibody raised against amino acids 169-191 of the N-terminal binding domain of CNF1/2 of *E. coli* origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CNF1/2 (JC4) is recommended for detection of CNF1 and CNF2 of *E. coli* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of CNF1/2: 115 kDa.

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.