

AM32101PU-N**Monoclonal Antibody to CNF1/CNF2 (169-191) - Purified**

Alternate names:	Cytotoxic necrotizing factor 1, Cytotoxic necrotizing factor 2
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	CNF1 and 2 belong to a family of bacterial toxins that target the small GTP-binding Rho proteins that regulate the actin cytoskeleton. Members of this toxin family typically inactivate Rho; however, CNF1 and the CNF2 activate Rho by deamidation. CNF1 is more frequently associated with E.coli strains that cause extraintestinal infections in humans, particularly those of the urinary tract (such as cystitis, pyelonephritis and prostatitis). In CNF1-producing uropathogenic E. coli strains, CNF1 is chromosomally encoded and typically resides on a pathogenicity island that also contains hemolysin and P fimbria- related genes. Both CNF1 and the highly related, plasmid-encoded CNF2 are monomeric, cytoplasmic toxins of approximately 115 kDa. CNF1 can be structurally organized into three functional domains the N-terminal binding domain, central and the C-terminal domain. The latter exhibits the catalytic activity of the toxin.
Uniprot ID:	Q1R2U0
NCBI:	YP_543855.1
GeneID:	3990770
Host / Isotype:	Mouse / IgG2a
Recommended Isotype Controls:	AM03096PU-N
Clone:	JC4
Format:	State: Liquid 0.2 µm filtered Ig fraction Purification: Protein G Buffer System: PBS Stabilizers: 0.1% BSA
Applications:	Western Blot: Use 1/10 as starting working dilution. Immuno Assays. Functional assays: JC4 is useful for Inhibition of toxin activity of CNF1. Does not inhibit the toxin activity of CNF2. <i>In vitro</i> dilutions have to be made according to the amounts of CNF1 or CNF2 to be inactivated. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Molecular Weight:	115 kDa
Specificity:	The monoclonal antibody JC4 is specific for Cytotoxic necrotizing factor type 1 and the highly related Cytotoxic necrotizing factor type 2 (CNF1 and CNF2) of uropathogenic <i>Escherichia coli</i> . Clone JC4 recognizes an epitope between amino acids 169 to 191 of the N-terminal

binding domain. JC4 neutralizes only CNF1.

Species Reactivity:

Tested: E. coli

Storage:

Store at 2 - 8 °C.

Shelf life: one year from despatch.

General Readings:

1. Meysick KC, Mills M, O'Brien AD. Epitope mapping of monoclonal antibodies capable of neutralizing cytotoxic necrotizing factor type 1 of uropathogenic Escherichia coli. *Infect Immun.* 2001 Apr;69(4):2066-74. PubMed PMID: 11254559.
2. McNichol BA, Rasmussen SB, Carvalho HM, Meysick KC, O'Brien AD. Two domains of cytotoxic necrotizing factor type 1 bind the cellular receptor, laminin receptor precursor protein. *Infect Immun.* 2007 Nov;75(11):5095-104. Epub 2007 Aug 20. PubMed PMID: 17709415.