SANTA CRUZ BIOTECHNOLOGY, INC.

Ciao 1 (E-10): sc-374498

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Wilms' tumor suppressor protein, WT1, contains a zinc finger domain and is capable of both activating or repressing transcription, depending on cell type and promotor context. A number of proteins, including various tumor suppressors, have been shown to interact with WT1. Interaction of WT1 with p53 results in increased p53 stability, and inhibits the ability of p53 to induce apoptosis. Par-4, a transcriptional repressor, is also known to bind WT1. Ciao 1, a member of the WD40 family of proteins, specifically interacts with WT1, resulting in a decrease in WT1 mediated transcriptional activation. Ciao 1 does not inhibit binding by causing a conformational change or by interfering with the activation domain of WT1.

CHROMOSOMAL LOCATION

Genetic locus: CIAO1 (human) mapping to 2q11.2; Ciao1 (mouse) mapping to 2 F1.

SOURCE

Ciao 1 (E-10) is a mouse monoclonal antibody raised against amino acids 1-339 of Ciao 1 of human origin.

PRODUCT

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

Ciao 1 (E-10) is available conjugated to agarose (sc-374498 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374498 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374498 PE), fluorescein (sc-374498 FITC), Alexa Fluor® 488 (sc-374498 AF488), Alexa Fluor® 546 (sc-374498 AF546), Alexa Fluor® 594 (sc-374498 AF594) or Alexa Fluor® 647 (sc-374498 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374498 AF680) or Alexa Fluor® 790 (sc-374498 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Ciao 1 (E-10) is recommended for detection of Ciao 1 of mouse, rat and 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 Ciao 1 siRNA (h): sc-40396, Ciao 1 siRNA (m): sc-40397, Ciao 1 shRNA Plasmid (h): sc-40396-SH, Ciao 1 shRNA Plasmid (m): sc-40397-SH, Ciao 1 shRNA (h) Lentiviral Particles: sc-40396-V and Ciao 1 shRNA (m) Lentiviral Particles: sc-40397-V.

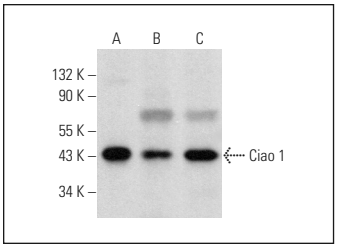
Molecular Weight of Ciao 1: 38 kDa.

Positive Controls: F9 cell lysate: sc-2245, rat ileum tissue extract or rat colon tissue extract.

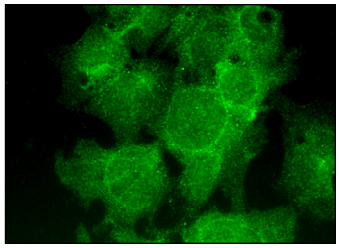
RECOMMENDED SUPPORT REAGENTS

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



Ciao 1 (E-10): sc-374498. Western blot analysis of Ciao 1 expression in F9 whole cell lysate (**A**) and rat ileum (**B**) and rat colon (**C**) tissue extracts.



Ciao 1 (E-10): sc-374498. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Kim, K.S., et al. 2018. Cytosolic HSC 20 integrates *de novo* iron-sulfur cluster biogenesis with the CIAO1-mediated transfer to recipients. Hum. Mol. Genet. 27: 837-852.
2. Maio, N., et al. 2019. Dimeric ferrochelatase bridges ABCB7 and ABCB10 homodimers in an architecturally defined molecular complex required for heme biosynthesis. Haematologica 104: 1756-1767.
3. Maio, N., et al. 2023. An iron-sulfur cluster in the zinc-binding domain of the SARS-CoV-2 helicase modulates its RNA-binding and -unwinding activities. Proc. Natl. Acad. Sci. USA 120: e2303860120.

RESEARCH USE

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

PROTOCOLS

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