

CALCOCO2 (E-10): sc-393042

BACKGROUND

CALCOCO2 (calcium-binding and coiled-coil domain-containing protein 2), also known as NDP52 (nuclear dot protein 52), is a 446 amino acid protein that localizes to the perinuclear region of the cytoplasm and to nuclear dots, where it functions as a subunit of nuclear domain 10 (ND10) bodies. ND10 bodies are nuclear domains that are thought to be associated with the nuclear matrix and may have a role in the life cycles of various viruses, such as HSV-1. Expressed ubiquitously with highest expression in skeletal muscle, CALCOCO2 exists as a complex with proteins such as Myosin VI and is involved in Actin cytoskeleton organization and in ruffle formation. CALCOCO2 may also regulate cell adhesion, cytokine signaling and constitutive secretion within the cell, suggesting an important role in membrane trafficking pathways and developmental events.

REFERENCES

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- Sternsdorf, T., et al. 1997. Cellular localization, expression, and structure of the nuclear dot protein 52. *J. Cell Biol.* 138: 435-448.
- Florin, L., et al. 2002. Reorganization of nuclear domain 10 induced by papillomavirus capsid protein I2. *Virology* 295: 97-107.
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- Morriswood, B., et al. 2007. T6BP and NDP52 are Myosin VI binding partners with potential roles in cytokine signalling and cell adhesion. *J. Cell Sci.* 120: 2574-2585.

CHROMOSOMAL LOCATION

Genetic locus: CALCOCO2 (human) mapping to 17q21.32.

SOURCE

CALCOCO2 (E-10) is a mouse monoclonal antibody raised against amino acids 147-446 mapping at the C-terminus of CALCOCO2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CALCOCO2 (E-10) is recommended for detection of CALCOCO2 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 CALCOCO2 siRNA (h): sc-93738, CALCOCO2 shRNA Plasmid (h): sc-93738-SH and CALCOCO2 shRNA (h) Lentiviral Particles: sc-93738-V.

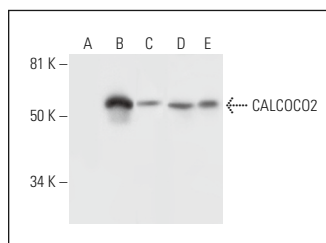
Molecular Weight of CALCOCO2: 55 kDa.

Positive Controls: CALCOCO2 (h): 293 Lysate: sc-112224, Jurkat nuclear extract: sc-2132 or Ramos nuclear extract: sc-2153.

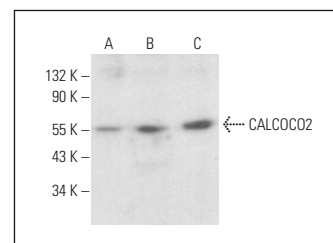
RECOMMENDED SUPPORT REAGENTS

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



CALCOCO2 (E-10): sc-393042. Western blot analysis of CALCOCO2 expression in non-transfected 293: sc-110760 (A), human CALCOCO2 transfected 293: sc-110760 (B) and HeLa (C) whole cell lysates and Jurkat (D) and Ramos (E) nuclear extracts.



CALCOCO2 (E-10): sc-393042. Western blot analysis of CALCOCO2 expression in Jurkat nuclear extract (A) and NAMALWA (B) and A549 (C) whole cell lysates.

STORAGE

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

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.