

UBCE7IP4 (F-2): sc-393432

BACKGROUND

Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). UBCE7IP4 (ubiquitin-conjugating enzyme 7-interacting protein 4), also known as RNF144A (RING finger protein 144A), KIAA0161 or RNF144, is a 292 amino acid single-pass membrane protein that contains one RING-type zinc finger and 2 IBR-type zinc fingers. Functioning as an E3 ubiquitin-protein ligase, UBCE7IP4 accepts ubiquitin (in the form of a thioester) from E2 ubiquitin-conjugating enzymes, such as UBC8 and UBC7, and transfers that ubiquitin residue to target substrates. Via its RING finger, UBCE7IP4 may play a role in protein-DNA and protein-protein interactions throughout the cell.

REFERENCES

1. Borden, K.L., et al. 1996. The RING finger domain: a recent example of a sequence-structure family. *Curr. Opin. Struct. Biol.* 6: 395-401.
2. Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. V. The coding sequences of 40 new genes (KIAA0161-KIAA0200) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 3: 17-24.
3. Martinez-Noel, G., et al. 1999. A family of structurally related RING finger proteins interacts specifically with the ubiquitin-conjugating enzyme UbcM4. *FEBS Lett.* 454: 257-261.

CHROMOSOMAL LOCATION

Genetic locus: RNF144A (human) mapping to 2p25.2; Rnf144a (mouse) mapping to 12 A2.

SOURCE

UBCE7IP4 (F-2) is a mouse monoclonal antibody raised against amino acids 49-100 mapping within an internal region of UBCE7IP4 of human origin.

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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-393432 X, 200 µg/0.1 ml.

UBCE7IP4 (F-2) is available conjugated to agarose (sc-393432 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393432 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393432 PE), fluorescein (sc-393432 FITC), Alexa Fluor® 488 (sc-393432 AF488), Alexa Fluor® 546 (sc-393432 AF546), Alexa Fluor® 594 (sc-393432 AF594) or Alexa Fluor® 647 (sc-393432 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393432 AF680) or Alexa Fluor® 790 (sc-393432 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

UBCE7IP4 (F-2) is recommended for detection of UBCE7IP4 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 UBCE7IP4 siRNA (h): sc-94470, UBCE7IP4 siRNA (m): sc-154845, UBCE7IP4 shRNA Plasmid (h): sc-94470-SH, UBCE7IP4 shRNA Plasmid (m): sc-154845-SH, UBCE7IP4 shRNA (h) Lentiviral Particles: sc-94470-V and UBCE7IP4 shRNA (m) Lentiviral Particles: sc-154845-V.

UBCE7IP4 (F-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

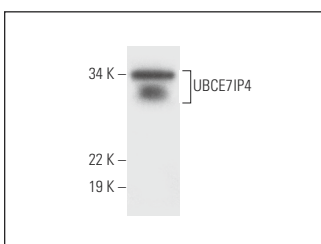
Molecular Weight of UBCE7IP4: 33 kDa.

Positive Controls: human bone marrow extract: sc-363752.

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



UBCE7IP4 (F-2): sc-393432. Western blot analysis of UBCE7IP4 expression in human bone marrow tissue extract.

SELECT PRODUCT CITATIONS

1. Tsai, C.L., et al. 2023. Topoisomerase I inhibition radiosensitizing hepatocellular carcinoma by RNF144A-mediated DNA-PKcs ubiquitination and natural killer cell cytotoxicity. *J. Clin. Transl. Hepatol.* 11: 614-625.

STORAGE

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