

UBE2F (C-11): sc-398668

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). UBE2F (ubiquitin-conjugating enzyme E2F), also known as NCE2, is a 185 amino acid protein that belongs to the E2 family of ubiquitin conjugating enzymes. UBE2F functions to accept the ubiquitin-like protein NEDD8 from an E1 complex and to catalyze the ATP-dependent attachment of NEDD8 to other proteins, playing a role in the pathway of protein degradation. The gene encoding UBE2F maps to chromosome 2, which encodes over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. *Proc. Natl. Acad. Sci. USA* 88: 9051-9055.
2. Ciechanover, A. 1994. The ubiquitin-proteasome proteolytic pathway. *Cell* 79: 13-21.
3. Gong, L. and Yeh, E.T. 1999. Identification of the activating and conjugating enzymes of the NEDD8 conjugation pathway. *J. Biol. Chem.* 274: 12036-12042.

CHROMOSOMAL LOCATION

Genetic locus: UBE2F (human) mapping to 2q37.3; Ube2f (mouse) mapping to 1 D.

SOURCE

UBE2F (C-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 118-140 within an internal region of UBE2F 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.

UBE2F (C-11) is available conjugated to agarose (sc-398668 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398668 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398668 PE), fluorescein (sc-398668 FITC), Alexa Fluor® 488 (sc-398668 AF488), Alexa Fluor® 546 (sc-398668 AF546), Alexa Fluor® 594 (sc-398668 AF594) or Alexa Fluor® 647 (sc-398668 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398668 AF680) or Alexa Fluor® 790 (sc-398668 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398668 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

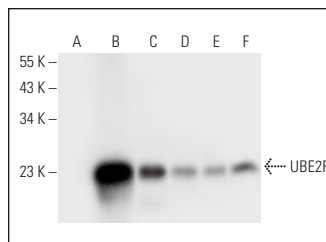
UBE2F (C-11) is recommended for detection of UBE2F of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 UBE2F siRNA (h): sc-94988, UBE2F siRNA (m): sc-154852, UBE2F shRNA Plasmid (h): sc-94988-SH, UBE2F shRNA Plasmid (m): sc-154852-SH, UBE2F shRNA (h) Lentiviral Particles: sc-94988-V and UBE2F shRNA (m) Lentiviral Particles: sc-154852-V.

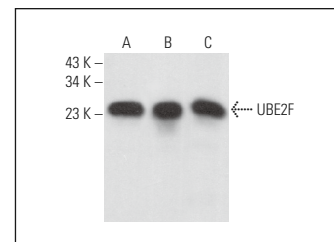
Molecular Weight of UBE2F isoforms: 24/21/18/14/11 kDa.

Positive Controls: UBE2F (m): 293T Lysate: sc-124413, Jurkat whole cell lysate: sc-2204 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

DATA



UBE2F (C-11): sc-398668. Western blot analysis of UBE2F expression in non-transfected 293T: sc-117752 (A), mouse UBE2F transfected 293T: sc-124413 (B), Jurkat (C), HeLa (D), HL-60 (E) and NTERA-2 cl.D1 (F) whole cell lysates.



UBE2F (C-11): sc-398668. Western blot analysis of UBE2F expression in Jurkat (A) and RAW 264.7 (B) whole cell lysates and rat testis tissue extract (C).

SELECT PRODUCT CITATIONS

1. Ko, T. and Li, S. 2019. Genome-wide screening identifies novel genes and biological processes implicated in cisplatin resistance. *FASEB J.* 33: 7143-7154.
2. Yu, Q., et al. 2020. Gossypol inhibits cullin neddylation by targeting SAG-CUL5 and RBX1-CUL1 complexes. *Neoplasia* 22: 179-191.
3. Li, C., et al. 2021. RNF111-facilitated neddylation potentiates cGAS-mediated antiviral innate immune response. *PLoS Pathog.* 17: e1009401.
4. Chen, C., et al. 2022. Cullin neddylation inhibitor attenuates hyperglycemia by enhancing hepatic Insulin signaling through Insulin receptor substrate stabilization. *Proc. Natl. Acad. Sci. USA* 119: e2111737119.
5. Xu, T., et al. 2022. A small molecule inhibitor of the UBE2F-CRL5 axis induces apoptosis and radiosensitization in lung cancer. *Signal Transduct. Target. Ther.* 7: 354.

STORAGE

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