

# UBE1 (C-15): sc-47552

## BACKGROUND

The ubiquitin activating enzyme E1 (UBE1) catalyzes the first step in ubiquitin conjugation to mark cellular proteins for degradation. Specifically, UBE1 functions to adenylate the C-terminal glycine residue of ubiquitin, a reaction that is ATP-dependent and is preceded by the formation of a thioester bond with a cysteine residue of UBE1. The UBE1-activated ubiquitin is then transferred to a ubiquitin conjugated enzyme, which donates the ubiquitin residue to target substrates. The UBE1 gene is an example of an X-Y homologous gene, which is X-linked with a distinct Y-linked gene in many mammals. However, no UBE1 homolog is detectable on the human Y chromosome. UBE1 is thought to escape X inactivation in humans.

## REFERENCES

1. Handley, P.M., et al. 1991. Molecular cloning, sequence, and tissue distribution of the human ubiquitin-activating enzyme E1. *Proc. Nat. Acad. Sci. USA* 88: 258-262.
2. Disteche, C.M., et al. 1992. Mapping and expression of the ubiquitin-activating enzyme E1 (Ube1) gene in the mouse. *Mamm. Genome* 3: 156-161.

## CHROMOSOMAL LOCATION

Genetic locus: UBA1 (human) mapping to Xp11.23; Uba1 (mouse) mapping to X A1.3.

## SOURCE

UBE1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of UBE1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47552 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

UBE1 (C-15) is recommended for detection of UBE1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); may cross-react with Sby in mouse.

UBE1 (C-15) is also recommended for detection of UBE1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for UBE1 siRNA (h): sc-61750, UBE1 siRNA (m): sc-61751, UBE1 shRNA Plasmid (h): sc-61750-SH, UBE1 shRNA Plasmid (m): sc-61751-SH, UBE1 shRNA (h) Lentiviral Particles: sc-61750-V and UBE1 shRNA (m) Lentiviral Particles: sc-61751-V.

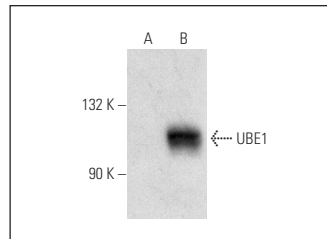
Molecular Weight of UBE1: 110 kDa.

Positive Controls: UBE1 (h): 293T Lysate: sc-171710, IMR-32 nuclear extract: sc-2148 or Jurkat whole cell lysate: sc-2204.

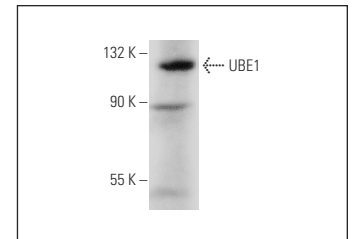
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



UBE1 (C-15): sc-47552. Western blot analysis of UBE1 expression in non-transfected: sc-117752 (A) and human UBE1 transfected: sc-171710 (B) 293T whole cell lysates.



UBE1 (C-15): sc-47552. Western blot analysis of UBE1 expression in IMR-32 nuclear extract.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **UBE1 (2G2): sc-53555** or **UBE1 (D-8): sc-515424**, our highly recommended monoclonal alternatives to UBE1 (C-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **UBE1 (2G2): sc-53555**.