

UBE1 (H-114): sc-292773

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 thiolester 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. Natl. 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 (H-114) is a rabbit polyclonal antibody raised against amino acids 945-1058 mapping at 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.

APPLICATIONS

UBE1 (H-114) 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); also recommended for detection of SBY in mouse.

UBE1 (H-114) 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.

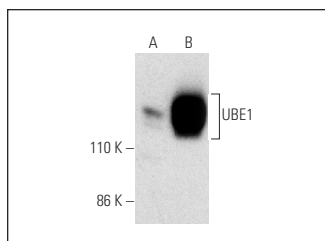
Molecular Weight of UBE1: 110 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, UBE1 (h): 293T Lysate: sc-171710 or MCF7 nuclear extract: sc-2149.

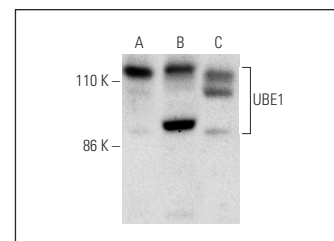
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



UBE1 (H-114): sc-292773. Western blot analysis of UBE1 expression in non-transfected: sc-117752 (A) and human UBE1 transfected: sc-171710 (B) 293T whole cell lysates.



UBE1 (H-114): sc-292773. Western blot analysis of UBE1 expression in MCF7 (A) and NTERA-2 cl.D1 (B) whole cell lysates and HeLa nuclear extract (C).

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **UBE1 (2G2): sc-53555** or **UBE1 (D-8): sc-515424**, our highly recommended monoclonal alternatives to UBE1 (H-114). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **UBE1 (2G2): sc-53555**.