

UBA5 (E-19): sc-99702

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). UBA5 (ubiquitin-activating enzyme 5), also known as UBE1DC1 or THIFP1, is a 404 amino acid protein that belongs to the E1-like ubiquitin-activating enzyme family. Existing as two alternatively spliced isoforms, UBA5 forms a high-energy thioester bond with UFM1 (ubiquitin-fold modifier 1), a protein involved in post-translational modification. Via formation of a thioester bond, UBA5 activates UFM1 function and may, thus, play a role in the regulation of post-translational modification events.

REFERENCES

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- Sasakawa, H., Sakata, E., Yamaguchi, Y., Komatsu, M., Tatsumi, K., Kominami, E., Tanaka, K. and Kato, K. 2006. Solution structure and dynamics of Ufm1, a ubiquitin-fold modifier 1. *Biochem. Biophys. Res. Commun.* 343: 21-26.

CHROMOSOMAL LOCATION

Genetic locus: UBA5 (human) mapping to 3q22.1; Uba5 (mouse) mapping to 9 F1.

SOURCE

UBA5 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBA5 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-99702 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

UBA5 (E-19) is recommended for detection of UBA5 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).

UBA5 (E-19) is also recommended for detection of UBA5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for UBA5 siRNA (h): sc-78187, UBA5 siRNA (m): sc-154839, UBA5 shRNA Plasmid (h): sc-78187-SH, UBA5 shRNA Plasmid (m): sc-154839-SH, UBA5 shRNA (h) Lentiviral Particles: sc-78187-V and UBA5 shRNA (m) Lentiviral Particles: sc-154839-V.

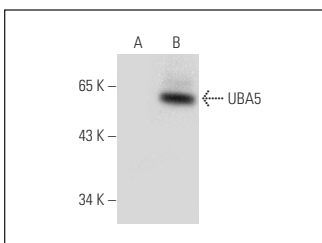
Molecular Weight of UBA5: 45 kDa.

Positive Controls: UBA5 (m): 293T Lysate: sc-124393, UBA5 (h): 293T Lysate: sc-111232 or K-562 whole cell lysate: sc-2203.

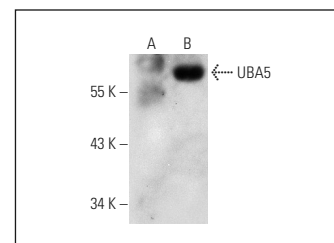
RECOMMENDED SECONDARY REAGENTS

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



UBA5 (E-19): sc-99702. Western blot analysis of UBA5 expression in non-transfected: sc-117752 (A) and mouse UBA5 transfected: sc-124393 (B) 293T whole cell lysates.



UBA5 (E-19): sc-99702. Western blot analysis of UBA5 expression in non-transfected: sc-117752 (A) and human UBA5 transfected: sc-111232 (B) 293T whole cell lysates.

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.