

# FBXO44 (H-40): sc-98312

## BACKGROUND

F-box proteins are critical components of the SCF (Skp1-CUL-1-F-box protein) type E3 ubiquitin ligase complex and are involved in substrate recognition and recruitment for ubiquitination. They are members of a larger family of proteins that are involved in the regulation of a wide variety of cellular processes (including the cell cycle, immune responses, signaling cascades and developmental events) through the targeting of proteins, such as cyclins, cyclin-dependent kinase inhibitors, I $\kappa$ B- $\alpha$  and  $\beta$ -catenin, for proteasomal degradation. FBXO44 (F-box only protein 44), also known as FBG3, FBX30, FBX44, FBX6A or FBXO6A, is a 255 amino acid protein that contains one F-box domain and one FBA domain and functions as a component of the SCF complex. Expressed abundantly in kidney and brain and at lower levels in liver, heart and spleen, FBXO44 exists as multiple alternatively spliced isoforms and is thought to be involved in E3 ubiquitin ligase-related events throughout the cell.

## REFERENCES

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- Ilyin, G.P., et al. 2000. cDNA cloning and expression analysis of new members of the mammalian F-box protein family. *Genomics* 67: 40-47.
- Ilyin, G.P., et al. 2002. A new subfamily of structurally related human F-box proteins. *Gene* 296: 11-20.
- Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. *Genes Dev.* 18: 2573-2580.
- Cardozo, T., et al. 2004. The SCF ubiquitin ligase: insights into a molecular machine. *Nat. Rev. Mol. Cell Biol.* 5: 739-751.
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- Glenn, K.A., et al. 2008. Diversity in tissue expression, substrate binding, and SCF complex formation for a lectin family of ubiquitin ligases. *J. Biol. Chem.* 283: 12717-12729.

## CHROMOSOMAL LOCATION

Genetic locus: FBXO44 (human) mapping to 1p36.22; Fbxo44 (mouse) mapping to 4 E2.

## SOURCE

FBXO44 (H-40) is a rabbit polyclonal antibody raised against amino acids 86-125 mapping within an internal region of FBXO44 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

FBXO44 (H-40) is recommended for detection of FBXO44 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

FBXO44 (H-40) is also recommended for detection of FBXO44 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for FBXO44 siRNA (h): sc-78647, FBXO44 siRNA (m): sc-145128, FBXO44 shRNA Plasmid (h): sc-78647-SH, FBXO44 shRNA Plasmid (m): sc-145128-SH, FBXO44 shRNA (h) Lentiviral Particles: sc-78647-V and FBXO44 shRNA (m) Lentiviral Particles: sc-145128-V.

Molecular Weight of FBXO44: 30 kDa.

## 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.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **FBXO44 (C-10): sc-398020**, our highly recommended monoclonal alternative to FBXO44 (H-40).