

FBXO40 (N-14): sc-99886

BACKGROUND

Belonging to the F-box family of proteins, FBXO40 (F-box only protein 40), also designated FBX40, is a 709 amino acid protein that contains one C-terminal F-box domain. 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 protein recruitment for ubiquitination. They are members of a larger family of proteins that are involved in the regulation of a wide variety of cellular mechanisms, including the cell cycle, the immune response, signaling cascades and developmental processes. They function by targeting proteins, such as cyclins, cyclin-dependent kinase inhibitors, I κ B- α and β -catenin, for degradation by the proteasome after ubiquitination. Via its F-box domain, FBXO40 can directly interact with Skp1 p19 and CUL-1. FBXO40 is thought to function as a regulator involved in postnatal myogenesis and shows decreased expression in the dystrophic muscle of patients with limb-girdle muscular dystrophy (LGMD).

REFERENCES

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- Winston, J.T., et al. 1999. The SCF β -TRCP-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in I κ B- α and β -catenin and stimulates I κ B- α ubiquitination *in vitro*. *Genes Dev.* 13: 270-283.
- Craig, K.L., et al. 1999. The F-box: a new motif for ubiquitin dependent proteolysis in cell cycle regulation and signal transduction. *Prog. Biophys. Mol. Biol.* 72: 299-328.
- 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.
- Schulman, B.A., et al. 2000. Insights into SCF ubiquitin ligases from the structure of the Skp1-Skp2 complex. *Nature* 408: 381-386.
- Ilyin, G.P., et al. 2002. A new subfamily of structurally related human F-box proteins. *Gene* 296: 11-20.

CHROMOSOMAL LOCATION

Genetic locus: FBXO40 (human) mapping to 3q13.33; Fbxo40 (mouse) mapping to 16 B3.

SOURCE

FBXO40 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FBXO40 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-99886 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FBXO40 (N-14) is recommended for detection of FBXO40 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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); non cross-reactive with other FBXO family members.

FBXO40 (N-14) is also recommended for detection of FBXO40 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for FBXO40 siRNA (h): sc-78246, FBXO40 siRNA (m): sc-145125, FBXO40 shRNA Plasmid (h): sc-78246-SH, FBXO40 shRNA Plasmid (m): sc-145125-SH, FBXO40 shRNA (h) Lentiviral Particles: sc-78246-V and FBXO40 shRNA (m) Lentiviral Particles: sc-145125-V.

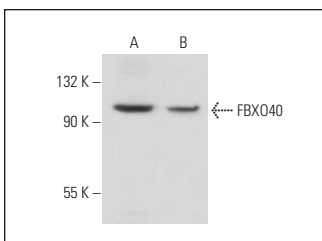
Molecular Weight of FBXO40: 80 kDa.

Positive Controls: JAR cell lysate: sc-2276 or Sol8 cell lysate: sc-2249.

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



FBXO40 (N-14): sc-99886. Western blot analysis of FBXO40 expression in Sol8 (A) and JAR (B) whole cell lysates.

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.