# SANTA CRUZ BIOTECHNOLOGY, INC.

# FBXO35 (E-20): sc-99882



#### BACKGROUND

Belonging to the F-box family of proteins, FBXO35 (F-box only protein 35), also designated F-box and WD-40 domain-containing protein 12 (FBXW12 or FBX012), is a 464 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 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,  $I\kappa B \cdot \alpha$  and  $\beta$ -catenin, for degradation by the proteasome after ubiquitination. Via its F-box domain, FBX035 can directly interact with Skp1 p19 and CUL-1. FBXO35 is ubiquitously expressed at low levels in most human tissues.

#### REFERENCES

- 1. Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. Curr. Biol. 9: 1177-1179.
- 2. Winston, J.T., et al. 1999. A family of mammalian F-box proteins. Curr. Biol. 9: 1180-1182.
- 3. Winston, J.T., et al. 1999. The SCFβ-TRCP-ubiquitin ligase complex associates specifically with phosphorylated destruction motifs in  $I\kappa B - \alpha$  and  $\beta$ -catenin and stimulates  $l\kappa B-\alpha$  ubiguitination *in vitro*. Genes Dev. 13: 270-283.
- 4. Craig, K.L. and Tyers, M. 1999. The F-box: a new motif for ubiguitin dependent proteolysis in cell cycle regulation and signal transduction. Prog. Biophys. Mol. Biol. 72: 299-328.
- 5. 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.
- 6. Schulman, B.A., et al. 2000. Insights into SCF ubiguitin ligases from the structure of the Skp1-Skp2 complex. Nature 408: 381-386.
- 7. Ilyin, G.P., et al. 2002. A new subfamily of structurally related human F-box proteins. Gene 296: 11-20.
- 8. Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. Genes Dev. 18: 2573-2580.

#### CHROMOSOMAL LOCATION

Genetic locus: FBXW12 (human) mapping to 3p21.31.

#### SOURCE

FBX035 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FBX035 of human origin.

#### PRODUCT

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

Blocking peptide available for competition studies, sc-99882 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

FBX035 (E-20) is recommended for detection of FBX035 of 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); non cross-reactive with other FBXO proteins.

Suitable for use as control antibody for FBX035 siRNA (h): sc-77895, FBX035 shRNA Plasmid (h): sc-77895-SH and FBX035 shRNA (h) Lentiviral Particles: sc-77895-V.

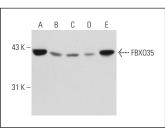
Molecular Weight of FBX035: 43 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or U-87 MG cell lysate: sc-2411.

#### **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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



FBX035 (E-20): sc-99882. Western blot analysis of FBX035 expression in IMR-32 (A), SH-SY5Y (B), HeLa (C), JAR (D) and U-87 MG (E) 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.

### **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.