

## FBXO7 (P-14): sc-86450

### 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. FBXO7 (F-box protein 7), also known as FBX, FBX7 or PKPS, is a 522 amino acid protein that contains one F-box domain and functions as a component of the SCF complex. Defects in the gene encoding FBXO7 are associated with parkinsonian-pyramidal syndrome (PKPS), a hypokinetic rigid disorder that exhibits Parkinsonian and pyramidal-associated symptoms.

### REFERENCES

- Cenciarelli, C., et al. 1999. Identification of a family of human F-box proteins. *Curr. Biol.* 9: 1177-1179.
- Winston, J.T., et al. 1999. A family of mammalian F-box proteins. *Curr. Biol.* 9: 1180-1182.
- 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.
- Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. *Genes Dev.* 18: 2573-2580.
- Chang, Y.F., et al. 2006. The F-box protein FBXO7 interacts with human inhibitor of apoptosis protein cIAP1 and promotes cIAP1 ubiquitination. *Biochem. Biophys. Res. Commun.* 342: 1022-1026.
- Shojaee, S., et al. 2008. Genome-wide linkage analysis of a Parkinsonian-pyramidal syndrome pedigree by 500 K SNP arrays. *Am. J. Hum. Genet.* 82: 1375-1384.

### CHROMOSOMAL LOCATION

Genetic locus: FBXO7 (human) mapping to 22q12.3; Fbxo7 (mouse) mapping to 10 C1.

### SOURCE

FBXO7 (P-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of FBXO7 of human origin.

### PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86450 P, (100  $\mu$ g 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

FBXO7 (P-14) is recommended for detection of FBXO7 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); non cross-reactive with other FBX family proteins.

Suitable for use as control antibody for FBXO7 siRNA (h): sc-75010, FBXO7 siRNA (m): sc-145134, FBXO7 shRNA Plasmid (h): sc-75010-SH, FBXO7 shRNA Plasmid (m): sc-145134-SH, FBXO7 shRNA (h) Lentiviral Particles: sc-75010-V and FBXO7 shRNA (m) Lentiviral Particles: sc-145134-V.

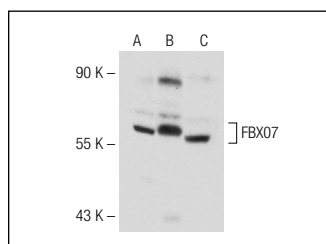
Molecular Weight of FBXO7: 59 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, C32 whole cell lysate: sc-2205 or LADMAC whole cell lysate: sc-364189.

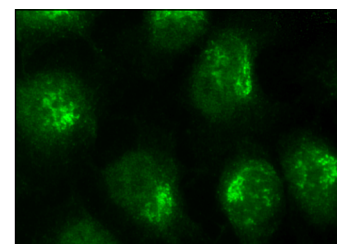
### RECOMMENDED SECONDARY REAGENTS

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



FBXO7 (P-14): sc-86450. Western blot analysis of FBXO7 expression in K-562 (A), C32 (B) and LADMAC (C) whole cell lysates.



FBXO7 (P-14): sc-86450. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

### RESEARCH USE

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

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Try **FBXO7 (E-8): sc-271763**, our highly recommended monoclonal alternative to FBXO7 (P-14).