

# FBXO42 (FL-6): sc-100737

## BACKGROUND

FBXO42 (F-box only protein 42), also known as FBX42, is a 717 amino acid protein that contains four Kelch repeats and one N-terminal F-box domain, and belongs to the F-box family of proteins. 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 response, signaling cascades and developmental processes) through the targeting of proteins, such as cyclins, cyclin-dependent kinase inhibitors, I $\kappa$ B $\alpha$  and  $\beta$ -catenin, for degradation by the proteasome after ubiquitination. Expressed at moderate levels in liver, ovary, kidney, testis and adult brain, and at low levels in heart and fetal brain, FBXO42 directly interacts with Skp1 p19 and CUL-1.

## REFERENCES

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- Winston, J.T., Koepp, D.M., Zhu, C., Elledge, S.J. and Harper, J.W. 1999. A family of mammalian F-box proteins. *Curr. Biol.* 9: 1180-1182.
- Nagase, T., Kikuno, R., Ishikawa, K.I., Hirose, M. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XVI. The complete sequences of 150 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 65-73.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609109. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Jin, J., Cardozo, T., Lovering, R.C., Elledge, S.J., Pagano, M. and Harper, J.W. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. *Genes Dev.* 18: 2573-2580.

## CHROMOSOMAL LOCATION

Genetic locus: FBXO42 (human) mapping to 1p36.13; Fbxo42 (mouse) mapping to 4 D3.

## SOURCE

FBXO42 (FL-6) is a mouse monoclonal antibody raised against recombinant FBXO42 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

FBXO42 (FL-6) is recommended for detection of FBXO42 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FBXO42 siRNA (h): sc-78739, FBXO42 siRNA (m): sc-145127, FBXO42 shRNA Plasmid (h): sc-78739-SH, FBXO42 shRNA Plasmid (m): sc-145127-SH, FBXO42 shRNA (h) Lentiviral Particles: sc-78739-V and FBXO42 shRNA (m) Lentiviral Particles: sc-145127-V.

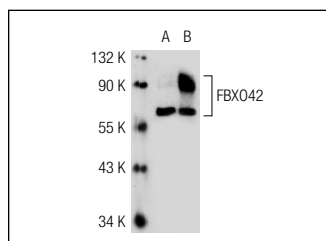
Molecular Weight of FBXO42: 78 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or FBXO42 (h): 293T Lysate: sc-117274.

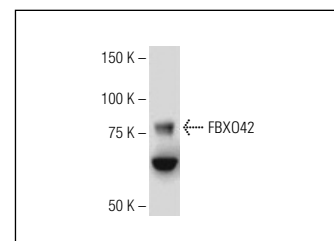
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> 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).

## DATA



FBXO42 (FL-6): sc-100737. Western blot analysis of FBXO42 expression in non-transfected: sc-117752 (A) and human FBXO42 transfected: sc-117274 (B) 293T whole cell lysates.



FBXO42 (FL-6): sc-100737. Western blot analysis of FBXO42 expression in HeLa whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

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