

FBXO22 (FF-7): sc-100736

BACKGROUND

FBXO22 (F-box only protein 22), also known as FBX22 or FBX22 p44, is a 403 amino acid protein that is predominately expressed in the liver. 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 and cyclin-dependent kinase inhibitors (CDKs), I κ B- α and β -catenin, for degradation by the proteasome after ubiquitination. Three isoforms of FBXO22 exists due to alternative splicing.

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.
- Jin, J., et al. 2004. Systematic analysis and nomenclature of mammalian F-box proteins. *Genes Dev.* 18: 2573-2580.
- Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 609096. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Yoshida, Y. 2007. F-box proteins that contain sugar-binding domains. *Biosci. Biotechnol. Biochem.* 71: 2623-2631.
- Cooke, P.S., et al. 2007. The F box protein S phase kinase-associated protein 2 regulates adipose mass and adipocyte number *in vivo*. *Obesity* 15: 1400-1408.
- Bernis, C., et al. 2007. Pin1 stabilizes Emi1 during G₂ phase by preventing its association with SCF ^{β trcp}. *EMBO Rep.* 8: 91-98.
- SWISS-PROT/TrEMBL (Q8NEZ5). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: FBXO22 (human) mapping to 15q24.2.

SOURCE

FBXO22 (FF-7) is a mouse monoclonal antibody raised against recombinant FBXO22 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ 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

FBXO22 (FF-7) is recommended for detection of FBXO22 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FBXO22 siRNA (h): sc-90142, FBXO22 shRNA Plasmid (h): sc-90142-SH and FBXO22 shRNA (h) Lentiviral Particles: sc-90142-V.

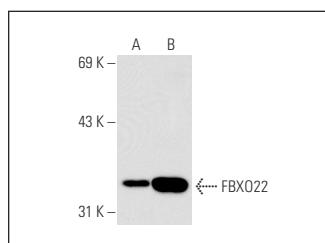
Molecular Weight of FBXO22: 44 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or FBXO22 (h): 293T lysate: sc-115497.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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



FBXO22 (FF-7): sc-100736. Western blot analysis of FBXO22 expression in non-transfected: sc-117752 (A) and human FBXO22 transfected: sc-117197 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Dikopoltsev, E., et al. 2014. FBXO22 protein is required for optimal synthesis of the N-methyl-D-aspartate (NMDA) receptor coagonist D-serine. *J. Biol. Chem.* 289: 33904-33915.
- Lin, M., et al. 2022. FBXO22 promotes cervical cancer progression via targeting p57^{Kip2} for ubiquitination and degradation. *Cell Death Dis.* 13: 805.
- Li, S., et al. 2022. FBXO22 inhibits metastasis in triple-negative breast cancer through ubiquitin modification of KDM5A and regulation of H3K4me3 demethylation. *Cell Biol. Toxicol.* E-published.

RESEARCH USE

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