



LD Biopharma, Inc.
7384 Trade Street, Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human FBXO4 Protein
Catalog Number: hRP-1925
Manufacturer: LD Biopharma, Inc.

Introduction

Human FBXO4 gene encodes a member of the F-box protein family which is characterized by an approximately 40 amino acid motif, the F-box. The F-box proteins constitute one of the four subunits of the ubiquitin protein ligase complex called SCFs (SKP1-cullin-F-box), which function in phosphorylation-dependent ubiquitination. It promotes ubiquitination of CCND1 and its subsequent proteasomal degradation. FBXO4 recognizes TERF1 and promotes its ubiquitination together with UBE2D1.

Full-length human FBXO4 cDNA (386aa) was constructed with codon optimization gene synthesis technology and expressed with N-terminal T7-His-TEV cleavage site Tag (29aa) fusion. This protein was expressed in *E. coli* as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: FBXO4 (FBX4)
Accession Number: NP_036300
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, Sucrose and DTT.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Atkin G, et al., F-box only protein 2 (Fbxo2) regulates amyloid precursor protein levels and processing. *JBC*. Mar 7; 289(10): 7038-48. (2014)



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Chu X, et al., *Alternative splicing variants of human Fbx4 disturb cyclin D1 proteolysis in human cancer*. *Biochem. Biophys. Res. Commun.* 447 (1), 158-164 (2014)

Lee EK, et al., *The FBXO4 tumor suppressor functions as a barrier to BRAFV600E-dependent metastatic melanoma*. *Mol. Cell. Biol.* 33 (22), 4422-4433 (2013)

Barbash O, et al., *Phosphorylation-dependent regulation of SCF(Fbx4) dimerization and activity involves a novel component, 14-3-3varepsilon*. *Oncogene* 30 (17), 1995-2002 (2011)

Applications

1. May be used for in vitro FBXO4 mediated ubiquitin protein ligase complex (SKP1-cullin-F-box) pathway regulation study for various cells by intracellular delivery of this protein with protein-delivery reagent such as ProFectin Reagent Kit.
2. May be used for protein-protein interaction assay.
3. Potential diagnostic protein for monitoring tumor progresses,
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

[MASMTGGQQMGRGHHHHHHENLYFQGGF](#)AGSEPRSGTNSPPPPFSDWGRLEAAILSGWKTFWQ
SVSKERVARTTSREEVDEAASTLRLPIDVQLYILSFLSPHDLCLGSTNHYWNETVRDPIILWR
YFLLRDLPSSVDWKSLEPDLEILKKPISEVTDGAFFDYMAVYRMCCPYTRRASKSSRPMYGAV
TSFLHSLIIQNEPRFAMFGPGLEELNTSLVLSLMSSEELCPTAGLPQRQIDGIGSGVNFQLNNQ
HKFNILILYSTTRKERDRAREEHTSAVNKMF SRHNEGDDQQGSRYSVIPQIQKVCEVVDGFIYV
ANAEAHKRHEWQDEF SHIMAMTDPAFGSSGRPLLVLSCLISQGDVKRMPCFYLAHELHLNLLNHP
WLVQDTEAETLTGFLNGIEWILEEVESKRAR