Product Name: FBXO31 / SKP1

Alternate Names: FBX14; FBX31

Product Code: TE3-091

FOR RESEARCH USE ONLY (RUO)

Verified Applications / Usage

FBXO31 supports substrate-dependent ubiquitylation in reconstituted SCF complex assays and is used to validate substrate targeting in both biochemical and cell-based systems. It is also applied in targeted protein degradation studies and in investigating cell cycle regulation and oxidative stress–induced protein turnover.

Physical Characteristics

Species: Human

Predicted MW (kDa): FBXO31: 55 kDa
SKP1: 18 kDa

Source: *E. coli* BL21

Purity: 90 %

Tags: FBXO31: N-His_6
SKP1: Untagged

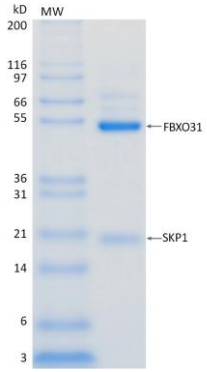
Formulation: 40 mM HEPES, 100 mM NaCl, 10% Glycerol, 1 mM EDTA, 1 mM TCEP, pH 7.6

Shipping: The product is shipped with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Stability/Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. Aliquot and store ≤ -70°C (stable for 24 months from date of receipt).

Quality Assurance

Purity & SDS-PAGE



2 µg FBXO31 / SKP1 run on 4-12% SDS-PAGE gel under reducing conditions, then visualized with Colloidal Coomassie Blue Stain.

Protein ID: F-box only protein 31
S-phase kinase-associated protein 1

Activity Assay

Verified in Ternary Complex Assay.

Background

Description

FBXO31 (F-box only protein 31) is a substrate-recognition component of the SCF (SKP1–CUL1–F-box) E3 ligase complex that directs specific proteins toward ubiquitylation and proteasomal degradation. It plays a key role in cell-cycle regulation by targeting substrates such as cyclin D1 and can also recognize proteins bearing C-terminal amidation under oxidative stress conditions. These properties have positioned FBXO31 as an emerging ligase of interest in targeted protein degradation strategies that leverage amide-based degrons.

Accession Number: Q5XUX0

Entrez Gene ID: FBXO31

Accession Number: P63208

Entrez Gene ID: SKP1

Protein Sequence

FBXO31:

MHHHHHHGSLLELPPELLVEIFASLPGTDLPSLAQVCTKFRRILHTDTIWRRRCREEYGVCEN
LRKLEITGVSCRDVYAKLLHRYRHILGLWQPDIGPYGGLLNVVVDGLFIIGWMYLPPHDPHVD
DPMRFKPLFRIHLMERKAATVECMYGHKGPHHGHIQIVKKDEFSTKCNQTDHHRMSGGRQEEF
RTWLREEWGRTLEDIFHEHMQELILMKFIYTSQYDNCLTYRRIYLPPSRPDDLIKPGLFKGTY
GSHGLEIVMLSFHGRRARGTKITGDPNIPAGQQTVEIDLRHRIQLPDLENQRNFNELSRIVLE
VRERVRQEQQEGGHEAGEGRGRQGPRESQPSPAQPRAEAPSKGPDGTPGEDGGEPGDAVAAAE
QPAQCGQGQPFVLPVGVSSRNEDYPRTCRMCFYGTGLIAGHGFTSPERTPGVFILFDEDRFGF
VWLELKSFSLYSRVQATFRNADAPSPQAFDEMLKNIQSLTS

SKP1:

MASIKLQSSDGEIFEVDVEIAKQSVTIKTMLEDLGMDDEGDDDPVPLPNVNAAILKKVIQWCT
HHKDDPPPPEDDENKEKRTDDIPVWDQEFLKVDQGTLFELILAANYLDIKGLLDVTCKTVANM
IKGKTPEEIRKTFNIKNDFTEEEEAQVRKENQWCEEK