10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FBXO5 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP16765c

Specification

FBXO5 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9UKT4

FBXO5 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 26271

Other Names
F-box only protein 5, Early mitotic inhibitor 1, FBXO5, EMI1, FBX5

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FBXO5 Antibody (Center) Blocking Peptide - Protein Information

Name FBXO5 (HGNC:13584)

Function
Regulator of APC activity during mitotic and meiotic cell cycle (PubMed:17485488, PubMed:17234884, PubMed:17875940, PubMed:23708001, PubMed:23708605, PubMed:16921029). During mitotic cell cycle plays a role as both substrate and inhibitor of APC-FZR1 complex (PubMed:29875408, PubMed:17485488, PubMed:17234884, PubMed:17875940, PubMed:23708001, PubMed:23708605, PubMed:16921029). During G1 phase, plays a role as substrate of APC-FZR1 complex E3 ligase (PubMed:29875408). Then switches as an inhibitor of APC-FZR1 complex during S and G2 leading to cell-cycle commitment

(PubMed:29875408). As APC inhibitor, prevents the degradation of APC substrates at multiple levels: by interacting with APC and blocking access of APC substrates to the D-box coreceptor, formed by FZR1 and ANAPC10; by suppressing ubiquitin ligation and chain elongation by APC by preventing the UBE2C and UBE2S activities (PubMed:23708605, PubMed:23708001, PubMed:16921029). Plays a role in genome integrity preservation by coordinating DNA replication with mitosis through APC inhibition in interphase to stabilize CCNA2 and GMNN in order to promote mitosis and prevent rereplication and DNA damage-induced cellular senescence (PubMed:17234884, PubMed:17485488, PubMed:17875940). During oocyte maturation, plays a role in meiosis through inactivation of APC-FZR1 complex. Inhibits APC through RPS6KA2 interaction that increases FBXO5 affiniy for CDC20 leading to the metaphase arrest of the second meiotic division before fertilization (By similarity). Controls entry into the first meiotic division through inactivation of APC-FZR1 complex (By similarity). Promotes migration and osteogenic differentiation of mesenchymal stem cells (PubMed:29850565).

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, cytoskeleton, spindle. Note=In interphase, localizes in a punctate manner in the nucleus and cytoplasm with some perinuclear concentration (PubMed:11988738). In mitotic cells, localizes throughout the cell, particularly at the spindle (PubMed:15469984)

FBXO5 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

FBXO5 Antibody (Center) Blocking Peptide - Images

FBXO5 Antibody (Center) Blocking Peptide - Background

This gene encodes a member of the F-box protein familywhich is characterized by an approximately 40 amino acid motif, theF-box. The F-box proteins constitute one of the four subunits ofthe ubiquitin protein ligase complex called SCFs(SKP1-cullin-F-box), which function in phosphorylation-dependentubiquitination. The F-box proteins are divided into 3 classes: Fbwscontaining WD-40 domains, Fbls containing leucine-rich repeats, andFbxs containing either different protein-protein interactionmodules or no recognizable motifs. The protein encoded by this genebelongs to the Fbxs class. This protein is similar to xenopus earlymitotic inhibitor-1 (Emi1), which is a mitotic regulator thatinteracts with Cdc20 and inhibits the anaphase promoting complex.Alternatively spliced transcript variants encoding differentisoforms have been identified.

FBXO5 Antibody (Center) Blocking Peptide - References

Lei, S.F., et al. J. Bone Miner. Res. (2010) In press :Ma, H.T., et al. Mol. Cell. Biol. 29(24):6500-6514(2009)Lee, J., et al. Mol. Biol. Cell 20(7):1891-1902(2009)Gutgemann, I., et al. Mod. Pathol. 21(4):445-454(2008)Iwai, H., et al. Cell 130(4):611-623(2007)