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Emi1 Antibody

Rabbit mAb
Catalog # AP91794

Product Information

Application	WB, IHC, IF, ICC, IP, IHF
Primary Accession	Q9UKT4
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	EMI1; FBX5; Fbxo31; fbxo5;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	50146

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:40
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Emi1
Description	Regulates progression through early mitosis by inhibiting the anaphase promoting complex/cyclosome (APC). Binds to the APC activators CDC20 and FZR1/CDH1 to prevent APC activation. Can also bind directly to the APC to inhibit substrate-binding.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

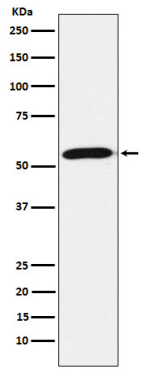
Name	FBXO5 (HGNC:13584)
Function	Regulator of APC activity during mitotic and meiotic cell cycle (PubMed:16921029, PubMed:17234884, PubMed:17485488, PubMed:17875940, PubMed:23708001, PubMed:23708605). During mitotic cell cycle plays a role as both substrate and inhibitor of APC-FZR1 complex (PubMed:16921029, PubMed:17234884, PubMed:17485488, PubMed:17875940, PubMed:23708001, PubMed:23708605, PubMed:29875408). 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:16921029, PubMed:23708001, PubMed:23708605). 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)

Images



Western blot analysis of Emi1 expression in HepG2 cell lysate.

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