

**EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone EMI1/1176 ]**  
**Catalog # AH11284****Specification****EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Product Information**

Application	,1,2,3,4,
Primary Accession	<a href="#">O9UKT4</a>
Other Accession	<a href="#">26271</a> , <a href="#">520506</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Calculated MW	56kDa KDa

**EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Additional Information****Gene ID** 26271**Other Names**

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

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Protein Information****Name** FBXO5 ([HGNC:13584](#))**Function**

Regulator of APC activity during mitotic and meiotic cell cycle (PubMed:[17485488](http://www.uniprot.org/citations/17485488), PubMed:[17234884](http://www.uniprot.org/citations/17234884), PubMed:[17875940](http://www.uniprot.org/citations/17875940), PubMed:[23708001](http://www.uniprot.org/citations/23708001), PubMed:[23708605](http://www.uniprot.org/citations/23708605), PubMed:[16921029](http://www.uniprot.org/citations/16921029)). During mitotic cell cycle plays a role as both substrate and inhibitor of APC-FZR1 complex (PubMed:[29875408](http://www.uniprot.org/citations/29875408), PubMed:[17485488](http://www.uniprot.org/citations/17485488), PubMed:[17234884](http://www.uniprot.org/citations/17234884), PubMed:[17875940](http://www.uniprot.org/citations/17875940), PubMed:[23708001](http://www.uniprot.org/citations/23708001), PubMed:[23708605](http://www.uniprot.org/citations/23708605)).

[16921029](http://www.uniprot.org/citations/16921029)). During G1 phase, plays a role as substrate of APC-FZR1 complex E3 ligase (PubMed:[29875408](http://www.uniprot.org/citations/29875408)). Then switches as an inhibitor of APC-FZR1 complex during S and G2 leading to cell-cycle commitment (PubMed:[29875408](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23708605), PubMed:[23708001](http://www.uniprot.org/citations/23708001), PubMed:[16921029](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/17234884), PubMed:[17485488](http://www.uniprot.org/citations/17485488), PubMed:[17875940](http://www.uniprot.org/citations/17875940)). During oocyte maturation, plays a role in meiosis through inactivation of APC-FZR1 complex. Inhibits APC through RPS6KA2 interaction that increases FBXO5 affinity 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](http://www.uniprot.org/citations/29850565)).

#### Cellular Location

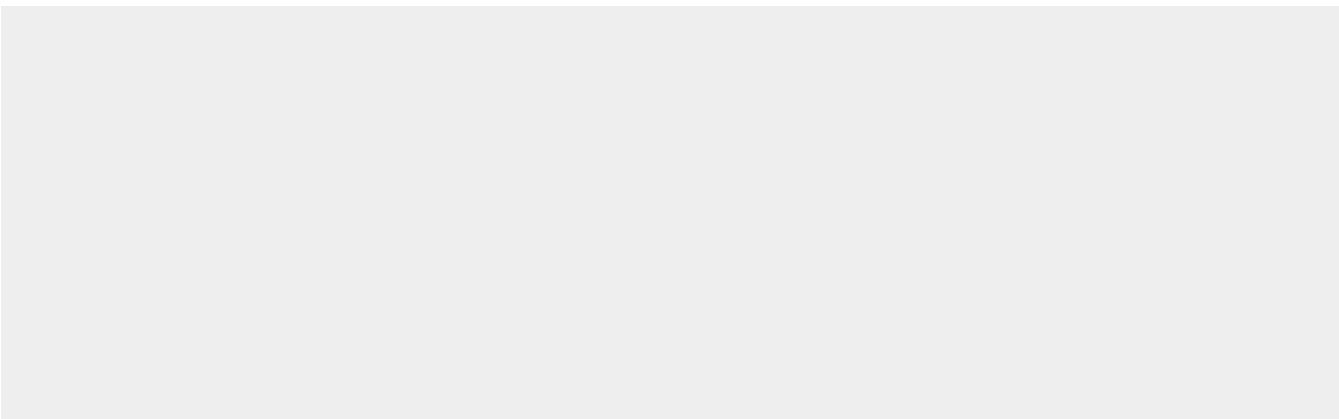
Nucleus. Cytoplasm. Cytoplasm, cytoskeleton, spindle. Note=In interphase, localizes in a punctate manner in the nucleus and cytoplasm with some perinuclear concentration (PubMed:11988738). In mitotic cells, localizes throughout the cell, particularly at the spindle (PubMed:15469984)

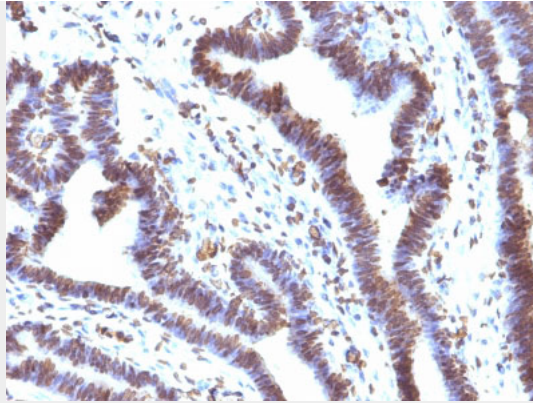
#### EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Protocols

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

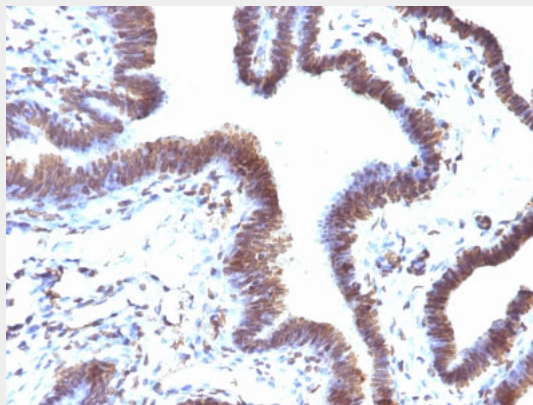
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Images





Formalin-fixed, paraffin-embedded human Ovarian Carcinoma stained with EMI1 Monoclonal Antibody (EMI1/1176).



Formalin-fixed, paraffin-embedded human Ovarian carcinoma stained with EMI1 Monoclonal Antibody (EMI1/1176).

#### **EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - Background**

It recognizes a 56kDa protein, which is identified as Early Mitotic Inhibitor-1 (EMI1). It regulates mitosis by inhibiting the anaphase promoting complex/cyclosome (APC). Emi1 is a conserved F box protein containing a zinc-binding region essential for APC inhibition. The Emi1 protein functions to promote cyclin A accumulation and S phase entry in somatic cells by inhibiting the APC complex. At the G1-S transition, Emi1 is transcriptionally induced by the E2F transcription factor. Emi1 overexpression accelerates S-phase entry and can override a G1 block caused by overexpression of Cdh1 or the E2F-inhibitor p105 retinoblastoma protein (pRb). Depleting cells of Emi1 through RNA interference prevents accumulation of cyclin A and inhibits S phase entry.

#### **EMI1 (Early Mitotic Inhibitor-1) Antibody - With BSA and Azide - References**

Reimann, J.D., et al. 2001. Emi1 is a mitotic regulator that interacts with Cdc20 and inhibits the anaphase promoting complex. Cell 105: 645-655. |