Emi1 (B-3): sc-365212

**BACKGROUND**

Emi1 (for early mitotic inhibitor) 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 is required to arrest unfertilized eggs at metaphase of meiosis II and may be the long-sought mediator of CSF activity. Human Emi1 is similar to *Xenopus laevis* Emi1, which inhibits the APC (Cdc20) ubiquitination complex to allow accumulation of cyclin B.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: FBXO5 (human) mapping to 6q25.2; Fbxo5 (mouse) mapping to 10 A1.

**SOURCE**

Emi1 (B-3) is a mouse monoclonal antibody raised against amino acids 148-447 mapping at the C-terminus of Emi1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Emi1 (B-3) is recommended for detection of Emi1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:100, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Emi1 siRNA (h): sc-37611, Emi1 siRNA (m): sc-44344, Emi1 shRNA Plasmid (h): sc-37611-SH, Emi1 shRNA Plasmid (m): sc-44344-SH, Emi1 shRNA (h) Lentiviral Particles: sc-37611-V and Emi1 shRNA (m) Lentiviral Particles: sc-44344-V.

Molecular Weight of Emi1: 56 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, F9 cell lysate: sc-2245 or HEL 92.1.7 cell lysate: sc-2270.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-FITC: sc-516140 or Protein A/G PLUS-agarose: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 3) Immunofluorescence: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

Emi1 (B-3) sc-365212: Western blot analysis of Emi1 expression in K-562 (A), HEL 92.1.7 (B), AT3B-1 (C) and F9 (D) whole cell lysates.

Emi1 (B-3): sc-365212. Immunofluorescence staining of formalin fixed A-431 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.