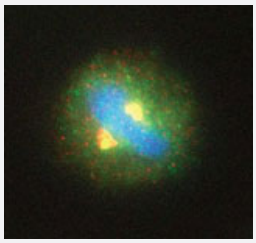
ESPL1 monoclonal antibody, clone XJ11-4D7

Catalog # MAB2347 Size 100 uL

Applications



Immunofluorescence

Overlay (blue) of centrosomal staining in HeLa cells. Centrosomal staining of ESPL1 (yellow), using ESPL1 monoclonal antibody, clone XJ11-4D7 (Cat # MAB2347), and gamma tubulin (green) in mitotic-metaphase cells and nuclear staining of separase in pre-mitotic cells.

Specification

Product Description	Mouse monoclonal antibody raised against partial recombinant ESPL1.
Immunogen	Recombinant fusion protein corresponding to amino acids 1866-1996 of human ESPL1.
Host	Mouse
Reactivity	Human
Specificity	This antibody is specific to human separase.
Form	Liquid
Isotype	IgG2a
Recommend Usage	Immunofluorescence (1:1000) The optimal working dilution should be determined by the end user.
Storage Buffer	In buffer containing 0.09% sodium azide
Storage Instruction	Store at -20°C or -80°C. Aliquot to avoid repeated freezing and thawing.

Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

Applications

- Immunofluorescence

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Gene Info — ESPL1

Entrez GeneID	9700
Protein Accession#	Q14674
Gene Name	ESPL1
Gene Alias	ESP1, FLJ46492, KIAA0165, SEPARASE, SEPARIN
Gene Description	extra spindle pole bodies homolog 1 (S. cerevisiae)
Omim ID	604143
Gene Ontology	Hyperlink
Gene Summary	Stable cohesion between sister chromatids before anaphase and their timely separation during a naphase are critical for chromosome inheritance. In vertebrates, sister chromatid cohesion is rele ased in 2 steps via distinct mechanisms. The first step involves phosphorylation of STAG1 (MIM 6 04358) or STAG2 (MIM 604359) in the cohesin complex. The second step involves cleavage of th e cohesin subunit SCC1 (RAD21; MIM 606462) by ESPL1, or separase, which initiates the final s eparation of sister chromatids (Sun et al., 2009 [PubMed 19345191]).[supplied by OMIM
Other Designations	extra spindle poles like 1|separin, separase

Publication Reference

- Functional interaction between BubR1 and securin in an anaphase-promoting complex/cyclosomeCdc20-independent manner.

  Kim HS, Jeon YK, Ha GH, Park HY, Kim YJ, Shin HJ, Lee CG, Chung DH, Lee CW.

  Cancer Research 2009 Jan; 69(1):27.

- Regulation of the anaphase-promoting complex-separase cascade by transforming growth factor-beta modulates mitotic progression in bone marrow stromal cells.

  Fujita T, Epperly MW, Zou H, Greenberger JS, Wan Y.

  Molecular Biology of the Cell 2008 Dec; 19(12):5446.

  Application: IP, WB, Mouse, Mouse bone marrow stromal cells (BMSCs)

- Discordant proliferation and differentiation in pituitary tumor-transforming gene-null bone marrow stem cells.

  Rubinek T, Chesnokova V, Wolf I, Wawrowsky K, Vlotides G, Melmed S.

  American Journal of Physiology. Cell Physiology 2007 Sep; 293(3):C1082.

  Application: IP, WB, Mouse , Bone marrow stem cells

- Processing, localization, and requirement of human separase for normal anaphase progression.

  Chestukhin A, Pfeffer C, Milligan S, DeCaprio JA, Pellman D.

  PNAS 2003 Apr; 100(8):4574.

Pathway

- Cell cycle

Disease

- Breast cancer
- Breast Neoplasms
- Chromosomal Instability
- Genetic Predisposition to Disease