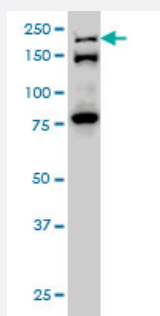


ESPL1 monoclonal antibody (M01), clone 6H6

Catalog # H00009700-M01

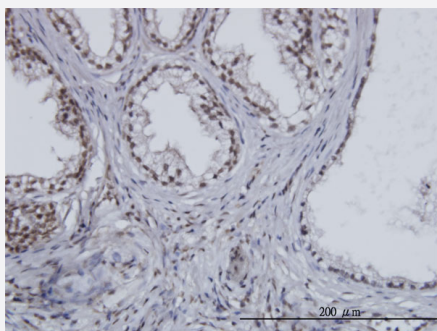
Size 100 ug

Applications



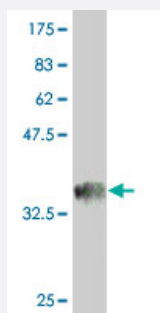
Western Blot (Cell lysate)

ESPL1 monoclonal antibody (M01), clone 6H6 Western Blot analysis of ESPL1 expression in HeLa S3 NE (Cat # L013V3).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ESPL1 on formalin-fixed paraffin-embedded human prostate. [antibody concentration 3 ug/ml]



Western Blot detection against Immunogen (38.5 kDa) .

Specification

Product Description

Mouse monoclonal antibody raised against a partial recombinant ESPL1.

Immunogen	ESPL1 (NP_036423, 586 a.a. ~ 701 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Sequence	REELQAYKAVRADTGQERFNIICDLELSPEETPAGAWARATHLVELAQVLCYHDFTQQTNCSALDAIREALQLLDSVRPEAQARDQLLDDKAQALLWLYICTLEAKIQEGIERDR
Host	Mouse
Reactivity	Human
Isotype	IgG2a Kappa
Quality Control Testing	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (38.5 KDa) .
Storage Buffer	In 1x PBS, pH 7.4
Storage Instruction	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot (Cell lysate)

ESPL1 monoclonal antibody (M01), clone 6H6 Western Blot analysis of ESPL1 expression in Hela S3 NE (Cat # L013V3).

[Protocol Download](#)

- Western Blot (Recombinant protein)

[Protocol Download](#)

- Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

Immunoperoxidase of monoclonal antibody to ESPL1 on formalin-fixed paraffin-embedded human prostate. [antibody concentration 3 ug/ml]

[Protocol Download](#)

- ELISA

Gene Info — ESPL1

Entrez GeneID	9700
GeneBank Accession#	NM_012291

Protein Accession#	NP_036423
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

- [Mitogen-Induced Defective Mitosis Transforms Neural Progenitor Cells.](#)

Hiba K Omairi, Cameron J Grisdale, Mathieu Meode, Alexandra K Bohm, Sophie Black, Nancy J Adam, Cassidy P Chapman, Tatiana Maroilley, John J Kelly, Maja Tarailo-Graovac, Steven J M Jones, Michael D Blough, J Gregory Cairncross.

Neuro-Oncology 2023 Apr; noad082.

Application: WB-Ce, Mouse, Mouse neural progenitor cells

- [Varying outcomes of triple-negative breast cancer in different age groups-prognostic value of clinical features and proliferation.](#)

H Vihervuori, K Korpinen, T A Autere, H Repo, K Talvinen, P Kronqvist.

Breast Cancer Research and Treatment 2022 Dec; 196(3):471.

Application: IHC-P, Human, Human breast cancer

- [A prometaphase mechanism of securin destruction is essential for meiotic progression in mouse oocytes.](#)

Christopher Thomas, Benjamin Wetherall, Mark D Levasseur, Rebecca J Harris, Scott T Kerridge, Jonathan M G Higgins, Owen R Davies, Suzanne Madgwick.

Nature Communications 2021 Jul; 12(1):4322.

Application: WB, Human, Mouse, HeLa cells, MEF cells, Oocytes

- [Centrosome Reduction in Newly-Generated Tetraploid Cancer Cells Obtained by Separase Depletion.](#)

Claudia Galofré, Elena Asensio, Maria Ubach, Irianna M Torres, Isabel Quintanilla, Antoni Castells, Jordi Camps.

Scientific Reports 2020 Jun; 10(1):9152.

Application: IF, Human, DLD-1 cells

- [Tumor-infiltrating lymphocytes and CD8+ T cells predict survival of triple-negative breast cancer.](#)

Vihervuori H, Autere TA, Repo H, Kurki S, Kallio L, Lintunen MM, Talvinen K, Kronqvist P.

2019 Dec; 145(12):3105.

Application: IHC-P, Human, Triple-negative breast cancer

- [Overexpression and constitutive nuclear localization of cohesin protease Separase protein correlates with high incidence of relapse and reduced overall survival in glioblastoma multiforme.](#)

Mukherjee M, Byrd T, Brawley VS, Bielamowicz K, Li XN, Merchant F, Maitra S, Sumazin P, Fuller G, Kew Y, Sun D, Powell SZ, Ahmed NM, Zhang N, Pati D.

Journal of Neuro-oncology 2014 Aug; 119(1):27.

Application: IF, WB-Ti, Human, Glioblastoma

- [Identification and Characterization of Separase Inhibitors \(Sepins\) for Cancer Therapy.](#)

Zhang N, Scorsone K, Ge G, Kaffes CC, Dobrolecki LE, Mukherjee M, Lewis MT, Berg S, Stephan CC, Pati D.

Journal of Biomolecular Screening 2014 Jul; 19(6):878.

Application: IS, WB-Ce, Human, Mouse, JM1, TT, Molt-4, LAN5, SH-EP, CHP212, SK-N-AS, NGP, IMR-32, SK-N-BE(2), SH-SY5Y, A549, Raji, MCF10f, MCF7, MC1, BCM-547I cells

- [MMTV-Espl1 transgenic mice develop aneuploid, estrogen receptor alpha \(ER \$\alpha\$ \)-positive mammary adenocarcinomas.](#)

Mukherjee M, Ge G, Zhang N, Edwards DG, Sumazin P, Sharan SK, Rao PH, Medina D, Pati D.

Oncogene 2014 Nov; 33(48):5511.

Application: WB, Mouse, Mammary glands

- [Calpain-1 Cleaves Rad21 to Promote Sister Chromatid Separation.](#)

Panigrahi AK, Zhang N, Mao Q, Pati D.

Molecular and Cellular Biology 2011 Nov; 31(21):4335.

Application: WB-Tr, Human, HEK 293T cells

- [Separase Loss of Function Cooperates with the Loss of p53 in the Initiation and Progression of T- and B-Cell Lymphoma, Leukemia and Aneuploidy in Mice.](#)

Mukherjee M, Ge G, Zhang N, Huang E, Nakamura LV, Minor M, Fofanov V, Rao PH, Herron A, Pati D.

PLoS One 2011 Jul; 6(7):e22167.

Application: WB-Ti, Mouse, Mouse testes

- [Overexpression and Mislocalization of the Chromosomal Segregation Protein Separase in Multiple Human Cancers.](#)

Meyer R, Fofanov V, Panigrahi A, Merchant F, Zhang N, Pati D.

Clinical Cancer Research 2009 Apr; 15(8):2703.

Application: IF, IHC-P, WB-Tr, Human, Breast cancer, FSK3, HeLa cells, Human intraductal carcinomas, Human tissue microarray, Osteosarcoma samples, Prostate samples

- [Overexpression of Separase induces aneuploidy and mammary tumorigenesis.](#)

Zhang N, Ge G, Meyer R, Sethi S, Basu D, Pradhan S, Zhao YJ, Li XN, Cai WW, El-Naggar AK, Baladandayuthapani V, Kittrell FS, Rao PH, Medina D, Pati D.

PNAS 2008 Aug; 105(35):13033.

Application: WB, Mouse, FSK3 cells

Pathway

- [Cell cycle](#)

Disease

- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Chromosomal Instability](#)
- [Genetic Predisposition to Disease](#)