ESPL1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	ESPL1, Monoclonal Antibody
Full Product Name	ESPL1 (Separin, Caspase-like Protein ESPL1, Extra Spindle Poles-like 1 Protein, ESP1, KIAA0165) (MaxLight 650)
Product Gene Name	anti-ESPL1 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	6H6
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human ESPL1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of produc original vial prior to removing the cap.
OMIM	604143
3D Structure	ModBase 3D Structure for Q14674
Immunogen	Partial recombinant corresponding to aa586-701 from ESPL1 (NP_036423) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	REELQAYKAVRADTGQERFNIICDLLELSPEETPAGAWARATHLVELAQVLCYHDFTQQTNCSALDAIREALQLLDSVRPEAQARDQLLDDKAQALLWLYI
Conjugate	MaxLight650
Product Categories/Family for anti-ESPL1 antibody	Antibodies; Apoptosis; Caspase
Applications Tested/Suitable for anti-ESPL1 antibody	FLISA, Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-ESPL1 antibody	IHC-P: 3ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-ESPL1 antibody	MBS6222062 is an antibody targeting ESPL1. Also known as ESPL1 (Separin, Caspase-like Protein ESPL1, Extra Spindle Poles-like 1 Protein, ESP1, (MaxLight 650). Reactive in Human. Host: Mouse.

Other Notes	Small volumes of anti-ESPL1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If neces centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ESPL1. It may not necessarily be applicable to this product.

NCBI GI #	1714268213
NCBI GeneID	9700
NCBI Accession #	NM_012291.5
UniProt Primary Accession #	Q14674
UniProt Related Accession #	Q14674
GenBank Nucleotide #	NM_012291
NCBI Official Full Name	Homo sapiens extra spindle pole bodies like 1, separase (ESPL1), mRNA
NCBI Official Synonym Full Names	extra spindle pole bodies like 1, separase
NCBI Official Symbol	ESPL1
NCBI Official Synonym Symbols	ESP1; SEPA
UniProt Protein Name	Separin
UniProt Synonym Protein Names	Caspase-like protein ESPL1; Extra spindle poles-like 1 protein; Separase
Protein Family	Separin
UniProt Gene Name	ESPL1
UniProt Synonym Gene Names	ESP1; KIAA0165
UniProt Entry Name	ESPL1_HUMAN
NCBI Protein Information	separin
NCBI Summary for ESPL1	Stable cohesion between sister chromatids before anaphase and their timely separation during anaphase are critical for chromosome inheritance. In vertebrates, sister chromatid cohesion is released in 2 steps via distinct mechanisms. The first step involves phosphorylation of STAG1 (MIM 604358) or STAG2 (MIM 300826) in the cohesin complex. The second step involves cleavage of the cohesin subunit SCC1 (RAD21; MIM 606462) by ESPL1, or separase, which initiates the final separation of sister chromatids (Sun et al., 2009 [PubMed 19345191]).[supplied by OMIM, Nov 2010]
UniProt Comments for ESPL1	separase: a caspase-like protease, which plays a central role in the chromosome segregation by cleaving the SCC1/RAD21 subunit of the cohesin complex at the onset of anaphase. During most of the cell cycle, it is inactivated by different mechanisms. Regulated by at least two independent mechanisms. First, it is inactivated via its interaction with securin/PTTG1, which probably covers its active site. Second, phosphorylation inactivates it. It is completely phosphorylated during mitosis and dephosphorylated during anaphase. Two alternatively spliced isoforms have been described. Protein type: EC 3.4.22.49; Protease Chromosomal Location of Human Ortholog: 12q Cellular Component: centrosome; nucleus; cytosol Molecular Function: protein binding; catalytic activity; cysteine-type peptidase activity Biological Process: establishment of mitotic spindle localization; homologous chromosome segregation; mitotic sister chromatid segregation; apoptosis; negative regulation of sister chromatid cohesion; positive regulation of mitotic metaphase/anaphase transition; cytokinesis; mitotic cell cycle; proteolysis; meiotic spindle organization and biogenesis

Research Articles on ESPL1	**1.** LPE motif on the Scc1 substrate is required for rapid and specific cleavage by separase.
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