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STIL Rabbit pAb

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Catalog # AP59211

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q15468
Predicted	Rat, Human, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	142955
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human STIL
Epitope Specificity	951-1050/1287
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm, cytosol.
DISEASE	Note=A chromosomal aberration involving STIL may be a cause of some T-cell acute lymphoblastic leukemias (T-ALL). A deletion at 1p32 between STIL and TAL1 genes leads to STIL/TAL1 fusion mRNA with STIL exon 1 slicing to TAL1 exon 3. As both STIL exon 1 and TAL1 exon 3 are 5'-untranslated exons, STIL/TAL1 fusion mRNA predicts a full length TAL1 protein under the control of the STIL promoter, leading to inappropriate TAL1 expression. In childhood T-cell malignancies (T-ALL), a type of defect such as STIL/TAL1 fusion is associated with a good prognosis. In cultured lymphocytes from healthy adults, STIL/TAL1 fusion mRNA may be detected after 7 days of culture. Defects in STIL are the cause of microcephaly primary type 7 (MCPH7) [MIM:612703]. Microcephaly is defined as a head circumference more than 3 standard deviations below the age-related mean. Brain weight is markedly reduced and the cerebral cortex is disproportionately small. Despite this marked reduction in size, the gyral pattern is relatively well preserved, with no major abnormality in cortical architecture. Primary microcephaly is further defined by the absence of other syndromic features or significant neurological deficits.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TAL1 disruption at 1p32, a common rearrangement in the T-cell acute lymphoblastic leukemia, usually results in the formation of a SCL interrupting locus (SIL)-TAL1 fusion product. SIL is an immediate early gene whose expression is associated with cell proliferation. The Sil protein exhibits ubiquitous expression in hematopoietic cell lines and tissues. However, Sil protein levels remain tightly regulated during the cell cycle, achieving peak levels in mitosis and diminishing on transition to G1 phase. Overexpression of Sil in primary adenocarcinomas predicts metastatic spread, especially in lung tumors with increased mitotic activity.

Additional Information

Gene ID	6491
Other Names	SCL-interrupting locus protein, TAL-1-interrupting locus protein, STIL, SIL
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	STIL
Synonyms	SIL
Function	Immediate-early gene. Plays an important role in embryonic development as well as in cellular growth and proliferation; its long- term silencing affects cell survival and cell cycle distribution as well as decreases CDK1 activity correlated with reduced phosphorylation of CDK1. Plays a role as a positive regulator of the sonic hedgehog pathway, acting downstream of PTCH1 (PubMed:16024801, PubMed:9372240). Plays an important role in the regulation of centriole duplication. Required for the onset of procentriole formation and proper mitotic progression. During procentriole formation, is essential for the correct loading of SASS6 and CPAP to the base of the procentriole to initiate procentriole assembly (PubMed:22020124). In complex with STIL acts as a modulator of PLK4-driven cytoskeletal rearrangements and directional cell motility (PubMed:29712910, PubMed:32107292).
Cellular Location	Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q60988}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cell cortex. Note=Localizes at the leading edge.
Tissue Location	Expressed in all hematopoietic tissues and cell lines. Highly expressed in a variety of tumors characterized by increased mitotic activity with highest expression in lung cancer

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.