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STK33 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7681a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9BYT3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57831
Antigen Region	476-506

Additional Information

Gene ID	65975
Other Names	Serine/threonine-protein kinase 33, STK33
Target/Specificity	This STK33 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 476-506 amino acids from the C-terminal region of human STK33.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	STK33 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	STK33 {ECO:0000303|PubMed:34155512}
Function	Serine/threonine protein kinase required for spermatid differentiation and male fertility (PubMed:37146716, PubMed:38781365). Promotes sperm flagella assembly during spermatogenesis by mediating phosphorylation of fibrous sheath proteins AKAP3 and AKAP4 (By similarity). Also phosphorylates vimentin/VIM, thereby regulating the dynamic behavior of the intermediate filament cytoskeleton (By similarity).

Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q924X7}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q924X7}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q924X7}. Note=Colocalizes with the caudal end of the manchette, a transient structure that guides tail elongation in elongating spermatids {ECO:0000250|UniProtKB:Q924X7}
Tissue Location	Highly expressed in testis, fetal lung and heart, followed by pituitary gland, kidney, interventricular septum, pancreas, heart, trachea, thyroid gland and uterus. Weak hybridization signals were observed in the following tissues: amygdala, aorta, esophagus, colon ascending, colon transverse, skeletal muscle, spleen, peripheral blood leukocyte, lymph node, bone marrow, placenta, prostate, liver, salivary gland, mammary gland, some tumor cell lines, fetal brain, fetal liver, fetal spleen and fetal thymus. No signal at all was detectable in RNA from tissues of the nervous system

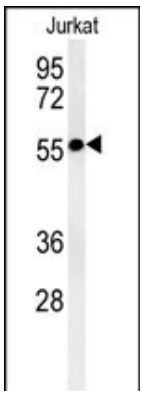
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains.

References

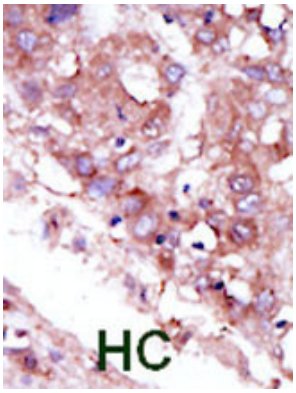
Blume-Jensen P, et al. Nature 2001. 411: 355.
Cantrell D, J. Cell Sci. 2001. 114: 1439.
Jhiang S Oncogene 2000. 19: 5590.
Manning G, et al. Science 2002. 298: 1912.
Moller, D, et al. Am. J. Physiol. 1994. 266: C351-C359.
Robertson, S. et al. Trends Genet. 2000. 16: 368.
Robinson D, et al. Oncogene 2000. 19: 5548.
Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889.
Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561.
Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.

Images



STK33-T481 (Cat. #AP7681a) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the STK33 antibody detected the STK33 protein (arrow).

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody,



followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

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