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[Marker Primary Antibody]

Rabbit Anti-TCAB1/Cy3 Conjugated antibody

Catalog Number: SL8163R-Cy3

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-TCAB1/Cy3
Immunogen:	KLH conjugated synthetic peptide derived from human WDR79/TCAB1（304-347aa）
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Horse,Rabbit)
Background:	background: WDR79 contains six WD (tryptophan-aspartate) repeat domains found in a number of proteins that function as adaptor molecules in signal transduction and cytoskeletal organization. The WD repeat is defined by four or more repeating units of a conserved core of approximately 40 amino acids ending with tryptophan-aspartic acid (WD). WD repeats may serve as sites of protein-protein interaction for adaptor proteins and facilitate multiprotein complex formation. The function of the WDR79 protein has not been characterized, however significant and consistent single nucleotide polymorphisms in the WDR79 gene have been found to be associated with ER negative breast cancer. **Function:** Essential component of the telomerase holoenzyme complex, a ribonucleoprotein complex essential for the replication of chromosome termini that elongates telomeres in most eukaryotes. In the telomerase holoenzyme complex, it controls telomerase localization to Cajal body. Required for

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	delivery of TERC to telomeres during S phase and for telomerase activity. Binds small Cajal body RNAs (scaRNAs). The mRNA encoding this protein plays a critical role in the regulation of p53 expression at the post-transcriptional level; it is involved both in maintaining basal p53 mRNA levels and in p53 induction upon DNA damage. **Subunit:** Component of the telomerase holoenzyme complex at least composed of TERT, DKC1, WRAP53/TCAB1, NOP10, NHP2, GAR1, TEP1, EST1A, POT1 and a telomerase RNA template component (TERC). **Subcellular Location:** Nucleus, Cajal body. Cytoplasm. **Tissue Specificity:** Expressed in all tissues and cell lines examined. **Post-translational modifications:** Phosphorylated upon DNA damage, probably by ATM or ATR. DISEASE: Defects in WRAP53 are the cause of dyskeratosis congenital autosomal recessive type 3 (DKCB3) [MIM:613988]. A rare multisystem disorder caused by defective telomere maintenance. It is characterized by progressive bone marrow failure, and the clinical triad of reticulated skin hyperpigmentation, nail dystrophy, and mucosal leukoplakia. Common but variable features include premature graying, aplastic anemia, low platelets, osteoporosis, pulmonary fibrosis, and liver fibrosis among others. Early mortality is often associated with bone marrow failure, infections, fatal pulmonary complications, or malignancy. **Similarity:** Contains 6 WD repeats **Database links:** UniProtKB/Swiss-Prot: Q9BUR4.1 Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. TCAB1It is a genuine component of telomerase。but it is not essential for the activity of the enzyme，It only supplements the telomerase complex to the processing and maintenance region in The nucleus called Cajal bodies. Cajal bodies modify various proteins that use small RNA molecules to guide their activity; for example, telomerase uses RNA molecules as a template for the DNA strand embedded at the ends of chromosomes. At the appropriate time, TCAB1 transports the telomerase complex to the waiting ends of newly replicated chromosomes. The researchers believe that the TCAB1 protein may be a general biological transporter responsible for transporting various molecules to their destinations.