

Anti-Telomerase reverse transcriptase (phospho S227) antibody ab111584

画像数 1

製品の概要

製品名	Anti-Telomerase reverse transcriptase (phospho S227) antibody
製品の詳細	Rabbit polyclonal to Telomerase reverse transcriptase (phospho S227)
由来種	Rabbit
アプリケーション	適用あり: ICC/IF
種交差性	交差種: Human
免疫原	Synthetic peptide corresponding to Human Telomerase reverse transcriptase (phospho S227).
ポジティブ・コントロール	HuvEc cells
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
バッファー	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: 49.1% PBS, 0.88% Sodium chloride, 50% Glycerol (glycerin, glycerine)</p> <p>PBS is without Mg²⁺ and Ca²⁺.</p>
精製度	Immunogen affinity purified
特記事項 (精製)	ab111584 is affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation.
ポリ/モノ	ポリクローナル

アプリケーション

The Abpromise guarantee Abpromise保証は、 次のテスト済みアプリケーションにおけるab111584の使用に適用されます
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		1/100 - 1/500.

ターゲット情報

機能	<p>Telomerase is a ribonucleoprotein enzyme essential for the replication of chromosome termini in most eukaryotes. Active in progenitor and cancer cells. Inactive, or very low activity, in normal somatic cells. Catalytic component of the telomerase holoenzyme complex whose main activity is the elongation of telomeres by acting as a reverse transcriptase that adds simple sequence repeats to chromosome ends by copying a template sequence within the RNA component of the enzyme. Catalyzes the RNA-dependent extension of 3'-chromosomal termini with the 6-nucleotide telomeric repeat unit, 5'-TTAGGG-3'. The catalytic cycle involves primer binding, primer extension and release of product once the template boundary has been reached or nascent product translocation followed by further extension. More active on substrates containing 2 or 3 telomeric repeats. Telomerase activity is regulated by a number of factors including telomerase complex-associated proteins, chaperones and polypeptide modifiers. Modulates Wnt signaling. Plays important roles in aging and antiapoptosis.</p>
組織特異性	<p>Expressed at a high level in thymocyte subpopulations, at an intermediate level in tonsil T lymphocytes, and at a low to undetectable level in peripheral blood T lymphocytes.</p>
関連疾患	<p>Note=Activation of telomerase has been implicated in cell immortalization and cancer cell pathogenesis.</p> <p>Defects in TERT are associated with susceptibility to aplastic anemia (AA) [MIM:609135]. AA is a rare disease in which the reduction of the circulating blood cells results from damage to the stem cell pool in bone marrow. In most patients, the stem cell lesion is caused by an autoimmune attack. T-lymphocytes, activated by an endogenous or exogenous, and most often unknown antigenic stimulus, secrete cytokines, including IFN-gamma, which would in turn be able to suppress hematopoiesis.</p> <p>Note=Genetic variations in TERT are associated with coronary artery disease (CAD).</p> <p>Defects in TERT are a cause of dyskeratosis congenita autosomal dominant (ADCK) [MIM:127550]; also known as dyskeratosis congenita Scoggins type. ADCK is a rare, progressive bone marrow failure syndrome characterized by the triad of reticulated skin hyperpigmentation, nail dystrophy, and mucosal leukoplakia. Early mortality is often associated with bone marrow failure, infections, fatal pulmonary complications, or malignancy.</p> <p>Defects in TERT are a cause of susceptibility to pulmonary fibrosis idiopathic (IPF) [MIM:178500]. Pulmonary fibrosis is a lung disease characterized by shortness of breath, radiographically evident diffuse pulmonary infiltrates, and varying degrees of inflammation and fibrosis on biopsy. It results in acute lung injury with subsequent scarring and endstage lung disease.</p>
配列類似性	<p>Belongs to the reverse transcriptase family. Telomerase subfamily.</p> <p>Contains 1 reverse transcriptase domain.</p>
ドメイン	<p>The primer grip sequence in the RT domain is required for telomerase activity and for stable</p>

association with short telomeric primers.

The RNA-interacting domain 1 (RD1)/N-terminal extension (NTE) is required for interaction with the pseudoknot-template domain of each of TERC dimers. It contains anchor sites that bind primer nucleotides upstream of the RNA-DNA hybrid and is thus an essential determinant of repeat addition processivity.

The RNA-interacting domain 2 (RD2) is essential for both interaction with the CR4-CR5 domain of TERC and for DNA synthesis.

翻訳後修飾

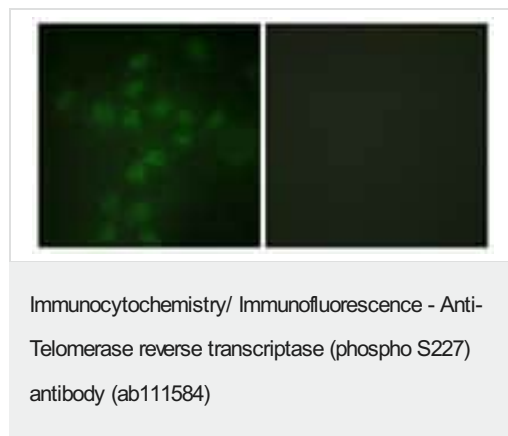
Ubiquitinated, leading to proteasomal degradation.

Phosphorylation at Tyr-707 under oxidative stress leads to translocation of TERT to the cytoplasm and reduces its antiapoptotic activity. Dephosphorylated by SHP2/PTPN11 leading to nuclear retention. Phosphorylation by the AKT pathway promotes nuclear location.

細胞内局在

Nucleus > nucleolus. Nucleus > nucleoplasm. Nucleus. Chromosome > telomere. Cytoplasm. Nucleus > PML body. Shuttling between nuclear and cytoplasm depends on cell cycle, phosphorylation states, transformation and DNA damage. Diffuse localization in the nucleoplasm. Enriched in nucleoli of certain cell types. Translocated to the cytoplasm via nuclear pores in a CRM1/RAN-dependent manner involving oxidative stress-mediated phosphorylation at Tyr-707. Dephosphorylation at this site by SHP2 retains TERT in the nucleus. Translocated to the nucleus by phosphorylation by AKT.

画像



Immunofluorescence analysis of Telomerase reverse transcriptase (phospho S227) in HuvEc cells, using ab111584 at a 1/100 dilution.

The image on the right is treated with the synthesized peptide.

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