

Recombinant Mouse Pot1a Protein, MYC/DDK-tagged

Cat. No. Pot1a-174M Lot. No. (See product label)

SPECIFICATION

Product Overview

Purified recombinant protein of full-length mouse protection of telomeres 1A (Pot1a), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species

Mouse

Source

HEK293

Description

Component of the telomerase ribonucleoprotein (RNP) complex that is essential for the replication of chromosome termini. Is a component of the double-stranded telomeric DNA-binding TRF1 complex which is involved in the regulation of telomere length by cis-inhibition of telomerase. Also acts as a single-stranded telomeric DNA-binding protein and thus may act as a downstream effector of the TRF1 complex and may transduce information about telomere maintenance and/or length to the telomere terminus. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded TTAGGG repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Binds to two or more telomeric single-stranded 5'-TTAGGG-3' repeats (G-strand) and with high specificity to a minimal telomeric single-stranded 5'-TAGGGTTAG-3' sequence. Binds telomeric single-stranded sequences internally or at proximity of a 3'-end. Its activity is TERT dependent but it does not increase TERT activity.

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Molecular Mass	71.3 kDa
Purity	>80%, as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 ug/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pot1a protection of telomeres 1A [<i>Mus musculus</i> (house mouse)]
Official Symbol	Pot1a
Synonyms	Pot1a; protection of telomeres 1A; Pot1; AI851169; 1500031H18Rik; protection of telomeres protein 1; POT1-like telomere end-binding protein
Gene ID	101185
mRNA Refseq	NM_133931
Protein Refseq	NP_598692
UniProt ID	Q91WC1

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