

## TNKS1 Protein, Human

<b>Cat. No.:</b>	HY-P701632
<b>Synonyms:</b>	TNKS; Poly [ADP-ribose] polymerase tankyrase-1; ADP-ribosyltransferase diphtheria toxin-like 5; ARTD5; Poly [ADP-ribose] polymerase 5A; Protein poly-ADP-ribosyltransferase tankyrase-1; TNKS-1; TRF1-interacting ankyrin-related ADP-ribose polymerase; Tankyrase I; Tankyrase-1; TANK1
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	O95271 (Q1091-Q1325)
<b>Gene ID:</b>	8658
<b>Molecular Weight:</b>	

### PROPERTIES

<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	Please use rapid thawing with running water to thaw the protein.
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	<p>TNKS1, a poly-ADP-ribosyltransferase, plays a pivotal role in diverse cellular processes, including the Wnt signaling pathway, telomere length regulation, and vesicle trafficking. In the Wnt signaling cascade, TNKS1 acts as an activator by mediating poly-ADP-ribosylation (PARsylation) of key components of the beta-catenin destruction complex, namely AXIN1 and AXIN2. This modification facilitates their recognition by RNF146, leading to ubiquitination and subsequent degradation. TNKS1 is also involved in the regulation of telomere length through PARsylation of TERF1. Furthermore, it participates in centrosome maturation during prometaphase by mediating PARsylation of HEPACAM2/MIK1 and may influence vesicle trafficking by modulating the subcellular distribution of SLC2A4/GLUT4-vesicles. Additionally, TNKS1 is implicated in spindle pole assembly through PARsylation of NUMA1 and contributes to the stimulation of 26S proteasome activity, highlighting its multifaceted functions in cellular physiology.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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