

TREVIGEN® Product Data

For Research Use Only. Not For Use In Diagnostic Procedures

Human Tankyrase 1 Enzyme and Buffer

Catalog #: 4700-02K-EB

Contents:	4700-02K-01 4684-096-07	Tankyrase 1 Enzyme 20X I-PAR Buffer	Size:	20 Units 2.5 ml
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Description: Tankyrase 1, also known as PARP5a, is a telomere associated poly (ADP-ribose) polymerase that is recruited to telomeres via its interaction with TRF1 and plays a role in the maintenance of telomere length, sister telomere association, and mitotic spindle organization¹. Changes in telomere function have been associated with various diseases, including cancer and aging. Tankyrase 1 has also been shown to destabilize axin, thereby activating Wnt signaling and driving tumor cell proliferation^{2,3}. Given these known activities, Tankyrase 1 has become a prominent cancer drug target⁴. The full length protein (MW = 170 kDa) with His tag is provided.

Source: Purified from High Five™ cells using a baculovirus expression system.

Unit Definition: One unit of Tankyrase 1 incorporates 500 picomoles of ADP-ribose via autoribosylation in 30 minutes at 25°C.

Storage Buffer: 20 mM Tris-Cl (pH 8.0), 200 mM NaCl, 1 mM DTT, 0.1% Triton X-100, 5 mM Imidazole, 50% glycerol.

Storage Conditions: Store at -20 °C in a manual defrost freezer. For long term storage, freeze in working aliquots at -80 °C. Avoid freeze-thaw cycles.

References:

1. Hsiao, S.J., Smith, S., Tankyrase function at telomeres, spindle poles, and beyond. *Biochimie*, 2008. **90**:83-92.
2. Reya, T. and H. Clevers. 2005. Wnt signaling in stem cells and cancer. *Nature* **434**:843-50.
3. Huang, S-M. A., Y.M. Mishina, S. Liu, A. Cheung, F. Stegmeier, et al. 2009. Tankyrase inhibition stabilizes axin and antagonizes Wnt signaling. *Nature* **461**:614-20.
4. Dodge, M.E. and Lum, L. 2011. Drugging the cancer stem cell compartment: Lessons learned from the hedgehog and Wnt signal transduction pathways. *Annu. Rev. Pharmacol. Toxicol.* **51**:289-310.

Lot Specific Data: see reverse

TREVIGEN®

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Related Products Available From Trevigen

Catalog #	Description	Size
4700-096-K	Tankyrase 1 Colorimetric Activity Assay Kit	96 Samples
4700-192-K	Tankyrase 1 Colorimetric Activity Assay Kit	192 Samples
4701-096-K	Tankyrase 1 Chemiluminescent Activity Assay Kit	96 Samples
4701-192-K	Tankyrase 1 Chemiluminescent Activity Assay Kit	192 Samples
4668-100-01	Recombinant Human PARP (High Specific Activity)	1000 Units
4667-250-EB	Recombinant Human PARP Enzyme	250 µl
4520-096-K	PARP in vivo Pharmacodynamic Assay II	96 tests
4676-096-K	HT Universal Chemiluminescent PARP Assay Kit/w Histone Coated Strip Wells	96 Samples
4677-096-K	HT Universal Colorimetric PARP Assay Kit/w Histone Coated Strip Wells	96 Samples
4684-096-K	HT Colorimetric PARP Apoptosis Assay Kit	96 tests
4685-096-K	HT Chemiluminescent PARP Apoptosis Assay Kit	96 tests
4690-096-K	HT F Homogeneous PARP Inhibition Assay Kit	96 tests
4682-096-K	HT Chemiluminescent PARG Assay Kit	96 tests
4683-096-K	HT Colorimetric PARG Assay Kit	96 tests
4667-50-03	3-Aminobenzamide PARP inhibitor (200 mM)	60 µl
4667-50-11	Benzamide PARP inhibitor (8 mM)	100 µl
4667-50-10	6(5H)-Phenanthridinone PARP inhibitor (160 µM)	100 µl
4667-50-09	4-Amino-1,8-naphthalimide PARP inhibitor (800 µM)	100 µl

Lot Specific Data:
Protein:
Units:
Specific Activity:

Human Tankyrase 1
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Storage: -20 °C
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1-800-873-8443