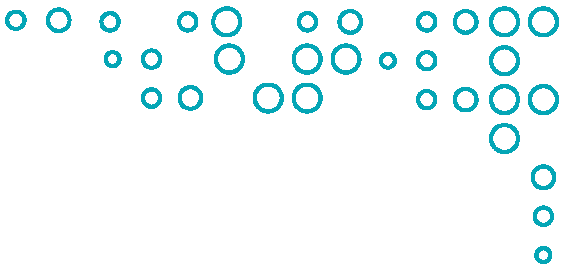
EURx® MOLECULAR BIOLOGY PRODUCTS



SV40 Large T Antigen

Cat. No.	size
E5800-01	20 µg
E5800-02	100 µg

Storage Conditions:

Store at -20°C.

References:

1. *Evan, G. and Littlewood, T. (1998) Science 281,1317-1321.*
2. *Wold, M.S., Weinberg, D.H., Virshup, D.M., Li, J.J. and Kelly, T.J. (1989) J. Biol. Chem. 264, 2801-2809.*
3. *Thomas, D.C., Veaute, X., Kunkel, T.A. and Fuchs, R.P.P. (1994) Proc. Natl. Acad. Sci. 91, 7752-7756.*
4. *Boyer, J.C., Thomas, D.C., Maher, V.M., McCormick, J.J. and Kunkel, T.A. (1993) Cancer Res. 53, 3270-3275.*
5. *Bebenek, K., Thomas, D.C., Roberts, J.D., Eckstein, F. and Kunkel, T.A. (1993) Mol. Pharm. 43, 57-63.*
6. *Stillman, B. (1994) Cell 78, 725-728.*
7. *Fanning, E. (1992) J. Virol. 66, 1289-1293.*
8. *Dixon, R.A.F., and Nathans, D. (1985) J. Virol. 53, 1001-1004.*
9. *Li, Joachim J. and Kelly, Thomas J. (1985) Mol Cell Biol. 5 1238-1246.*

Description:

The major regulatory protein of SV40 virus, responsible for virion assembly, viral and cellular transcriptional regulation, viral DNA replication, and alteration of the cell cycle.

SV40 Large T Antigen plays multifunctional roles:

- Functions as an initiator protein to begin DNA replication at the SV40 origin.
- Performs as a DNA helicase that unwinds DNA ahead of the polymerizing complex.
- Acts as a primosome loading protein.
- Exhibits ATPase activity.

Applications:

- Simian virus (SV40) DNA is the best model for mammalian chromosomal DNA replication *in vitro* (1).
- Examining fidelity and biochemistry of DNA replication in humans (6,7).
- Identifying mode of action and mechanisms leading to cell transformation *in vitro* and tumor formation *in vivo* (8).
- Regulating gene expression in eukaryotic cells (2).
- Studying the inhibition of DNA replication by mutagenesis (3,4).
- Determining risks posed by human carcinogens.
- Comparing replication of normal and malignant cells.
- Investigating the cytotoxic effects of drugs (5).
- Investigating apoptosis.

Storage Buffer:

10 mM Tris-HCl (pH 8.0), 100 mM NaCl, 1 mM dithiothreitol, 1 mM EDTA, 50% (v/v) glycerol.

Assay Conditions:

Acording to the method of Li and Kelly (9).

Quality Control:

All preparations are assayed for stimulation of DNA synthesis in a T antigen-dependent DNA replication assay (2). Typical preparations are greater than 90% pure as judged by SDS polyacrylamide gel electrophoresis.

EURx Ltd. 80-297 Gdańsk Poland ul. Przyrodnikow 3, NIP 957-07-05-191, KRS 0000202039
www.eurx.com.pl, orders@eurx.com.pl, *tel.* +48 58 524 06 97, *fax* +48 58 341 74 23