# **PRODUCT INFORMATION**

Catalog number ATGA0157

Clone No. AT1F2

**Product type** Monoclonal Antibody

**UnitProt No.** Q9NUW8

NCBI Accession No. NP\_060789

Alternative Names tyrosyl-DNA phosphodiesterase 1, FLJ11090, SCAN1

# **PRODUCT SPECIFICATION**

Antibody Host Mouse

Reacts With Human

Concentration 1mg/ml (determined by BCA assay)

# **Formulation** Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen Recombinant human TDP1 (1-298aa) purified from E. coli

# Isotype

lgG2b kappa

**Purification Note** By protein-G affinity chromatography

## Application

ELISA,WB,ICC/IF,FACS

#### Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.



#### Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

#### Description

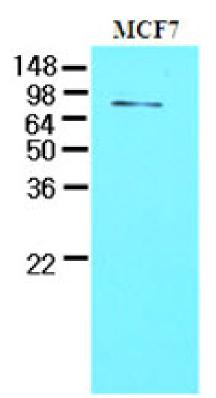
Tyrosyl-DNA phosphodiesterase (TDP1) is a DNA repair enzyme that catalyzes the hydrolysis of a phophodiester bond between a tyrosine residue and a DNA 3' phosphate. This protein is a member of the phospholipase D (PLD) superfamily and contains two PLD phosphodiesterase domains. Mutations in TDP1 are associated with the disease spinocerebellar ataxia with axonal neuropathy (SCAN1) by interfering with DNA transcription or by inducting apoptosis in postmitotic neurons.

#### **General References**

Dexheimer TS, et al., (2008) Anticancer Agents Med Chem. 8(4):381-9. El-Khamisy SF, Caldecott KW., (2006) Mutagenesis. 21(4):219-24.

## DATA

#### Western blot analysis (WB)

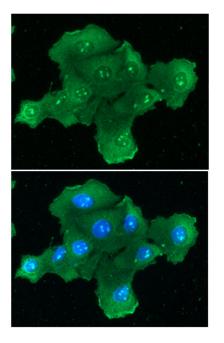


The cell lysate of MCF7(30ug) was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human TDP1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Immunocytochemistry/Immunofluorescence (ICC/IF)

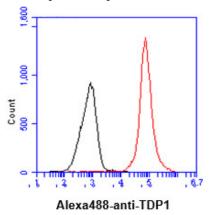


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ICC/IF analysis of TDP1 in Hep3B cells. The cell was stained with ATGA0157 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

Flow cytometry (FACS)



Flow cytometry analysis of TDP1 in Jurkat cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat antimouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).

