Technical Data Sheet

# Purified Mouse Anti-TRF2

## Product Information

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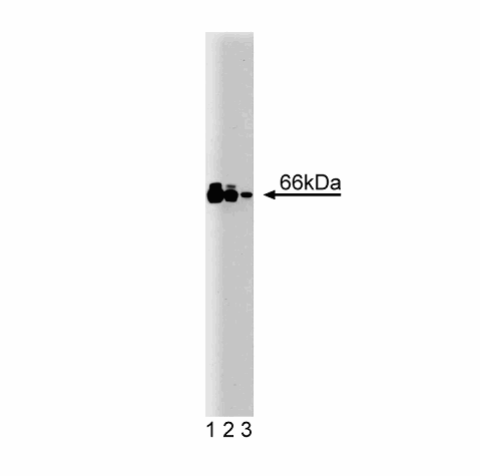
|---|---|
| **Material Number:** | **611200** |
| **Alternate Name:** | TTAGGG Repeat binding Factor-2 |
| **Size:** | 50 µg |
| **Concentration:** | 250 µg/ml |
| **Clone:** | 36/TRF2 |
| **Immunogen:** | Human TRF2 aa. 316-427 |
| **Isotype:** | Mouse IgG1 |
| **Reactivity:** | QC Testing: Human<br>Tested in Development: Dog |
| **Target MW:** | 66 kDa |
| **Storage Buffer:** | Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide. |

## Description

Telomeres, the physical ends of eukaryotic chromosomes, consist of tracts of TTAGGG repeats that end in 3' single strand protrusions called G-strand overhangs. TRF2 (TTAGGG Repeat binding Factor-2) and TRF1 are two proteins that bind the TTAGGG repeats of mammalian telomeres. Both proteins are ubiquitously expressed and exhibit a similar overall structure with a C-terminal DNA binding motif related to the protooncogene Myb and an N-terminal putative dimerization domain. While TRF1 is a negative regulator of telomere length maintenance, TRF2 is involved in the protection of chromosome ends from end-to-end fusion. Telomere integrity is maintained through the formation of "t loops" which are made by the insertion of the G-strand overhang into the duplex repeat region. This structural alteration is mediated by TRF2 and is the primary mechanism for the sequestration and protection of telomeres from DNA damage responses. Cells that lack functional TRF2 undergo loss of G-strand overhangs, innapropriate DNA repair resulting in end-to-end chromosome fusion, cell cycle arrest and apoptosis. Thus, TRF2 is a unique and vital component for the maintenance of chromosome structure and function.




***Western blot analysis of TRF2 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152).*** *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-TRF2 antibody.*

## Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

## Application Notes

**Application**

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| Western blot | Routinely Tested |

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**Recommended Assay Procedure:**

***Western blot:*** Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 611451 | Jurkat Cell Lysate | 500 µg | (none) |
| 554002 | HRP Goat Anti-Mouse Ig | 1.0 ml | (none) |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References


Broccoli D, Smogorzewska A, Chong L, de Lange T. Human telomeres contain two distinct Myb-related proteins, TRF1 and TRF2. *Nat Genet.* 1997; 17(2):231-235.(Biology)

Griffith JD, Comeau L, Rosenfield S, et al. Mammalian telomeres end in a large duplex loop. *Cell.* 1999; 97(4):503-514.(Biology)

van Steensel B, Smogorzewska A, de Lange T. TRF2 protects human telomeres from end-to-end fusions. *Cell.* 1998; 92(3):401-413.(Biology)