



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Mouse Anti-Human TRF1 With HRP-conjugated Secondary Antibody

Catalog No.
DS-MB-03429

Target Species
Human

Isotype
IgG1

Preparation

Synonyms: PIN2, TRBF1, TRF, TRF1

Immunogen: Recombinant TRF1

Purified IgG prepared by affinity chromatography on Protein G

Formulation

Product Form: Purified IgG - liquid

Product Type: Monoclonal Antibody

Buffer Solution: Phosphate buffered saline

Preservative Stabilizers: 0.09% Sodium Azide (NaN_3)

Approx. Protein Concentrations: IgG concentration 1.0mg/ml

Specificity

DS-MB-03429 recognises TTAGGG repeat binding factor 1 (TRF1) a ubiquitously expressed 60kDa protein. Along with tankyrase-1, TIN2, and PINX1, TRF1 binds the double-stranded TTAGGG repeat of telomeres and regulates telomere length. Protection of telomeres-1 (POT1) is a single-stranded telomeric DNA-binding protein which controls the elongation of telomeres by telomerase. TRF1 mediates the loading of POT1 onto single stranded DNA, conveying information about telomere length to the telomere terminus, where telomerase is regulated. If the telomere is long enough, telomerase is inhibited. Additionally in conjunction with POT1 and TTAGGG repeat binding factor 1 (TRF2), TRF1 recruits factors to the telomere, inducing the formation of the protective t-loop. TRF1 along with TRF2, POT1, TIN2, TPP1, and Rap1 form the shelterin complex which distinguishes telomeres from sites of DNA damage.

TRF1 is thought to play a role in leukaemia being expressed at significantly higher levels in patients with acute lymphoblastic leukaemia than those with myeloid leukaemia.

DS-MB-03429 has been reported to work in Western blotting applications.

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life: 18 months from date of dispatch.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Applications

<div>Options</div> <div>Functions</div>	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry			•	
Immunohistology - Frozen	•			
Immunohistology - Paraffin(1)	•			1/200 - 1/1000
Immunohistology - Resin			•	
Elisa	•			
Western Blotting(2)	•			

Note: Other applications have not been tested. Optimal dilutions should be determined.

(1) Histology Positive Control Tissue: Human tonsil. This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose

(2) This product detects a band of approximately 60kDa in Jurkat whole cell lysates.

Secondary Antibody Applications

<div>Options</div> <div>Functions</div>	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

Reference

- Galati, A. *et al.* (2006) The human telomeric protein TRF1 specifically recognizes nucleosomal binding sites and alters nucleosome structure. *J. Mol. Biol.* 360: 377-85.
- de Lange, T. *et al* (2005) Shelterin: the protein complex that shapes and safeguards human telomeres. *Genes Dev.* 19: 2100-10.

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