# **Technical Data Sheet** FITC Mouse Anti-Human Terminal Transferase Set

550756		
100 tests		
QC Testing: Human		
51-38004X		
FITC Mouse Anti-Human Terminal transferase (Tdt)		
100 tests (1 ea)		
20 µl		
E17-1519		
Mouse IgG1, ĸ		
Aqueous buffered solution containing BSA and ${\leq}0.09\%$ sodium azide.		
51-35404X-4		
FITC Mouse IgG1, κ Isotype Control		
100 tests (1 ea)		
20 µl		
MOPC-21		
Mouse IgG1, κ		
Aqueous buffered solution containing BSA and ${\leq}0.09\%$ sodium azide.		

## Description

Reacts with terminal deoxyribonucleotidyltransferase (TdT), a template-independent DNA polymerase that adds nucleotides to single stranded DNA primers. Western blot analysis of TdT reveals bands of 55, 40 and 15 kDa. TdT is found in normal bone marrow lymphoid progenitor cells and immature thymic lymphocytes. It has been reported that TdT is involved in the regulation and/or translocation of DNA and gene rearrangement during normal T and B cell development.



Profile of permeabilized REH cell line analyzed by flow cytometry

## **Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

# **Application Notes**

Application							
Intracellular staining (flow cytometry) Routinely					7 Tested		
Recommend BD Bioscie	led Assay Pro ences	ocedure:					
bdbiosciences.com							
United States 877.232.8995	Canada 888.259.0187	Europe 32.53.720.550	<b>Japan</b> 0120.8555.90	Asia Pacific 65.6861.0633	Latin America/Caribbean 55.11.5185.9995	1	
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### **Staining Protocol:**

1. Harvest cultured target cells into a 50 ml conical centrifuge tube. Centrifuge at 1000rpm for 10 minutes, aspirate and discard supernate.

2. Wash cell pellet once with PBS and mix gently. Centrifuge at 1000 rpm for 10 minutes, aspirate and discard supernate.

3. Fix the cells by adding 15-20 ml of 1% formaldehyde while vortexing the pellet and incubate for 20 minutes at room temperature. Centrifuge at 1000 rpm for 10 minutes, aspirate and discard supernate.

4. Add 15-20 ml of 0.1% Triton X-100 in PBS and incubate for 5-10 minutes. Centrifuge at 1000 rpm for 10 minutes, aspirate and discard supernate.

5. Resuspend in PBS + 1% FBS (wash buffer) to a final concentration of approximately 1 x 10<sup>6</sup> per 50 µl.

6. Prepare one tube of 50  $\mu$ l of cell suspension and add 20  $\mu$ l of conjugated anti-human TdT. Prepare another tube of 50  $\mu$ l of cell suspension and add 20  $\mu$ l of conjugated isotype control. Shake gently, and incubate in the dark at room temperature for 20-30 minutes.

7. Wash tubes in 2 ml of wash buffer. Centrifuge for 5 minutes at 1000 rpm, aspirate and discard supernate.

8. Resuspend in 500 µl of wash buffer and analyze by flow cytometry.

# **Product Notices**

- 1. This antibody has been optimized and preassayed with its matched isotype control to be used at the recommended volume of 20 ul/test. Titration of the reagents or substituting with other (non-matched) isotype control is NOT recommended.
- 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

Fuller SA, Philips A, Coleman MS. Affinity purification and refined structural characterization of terminal deoxynucleotidyltransferase. *Biochem J.* 1985; 231(1):105-113. (Biology)

Keren DF, Hanson CA, Hurtubise PE, ed. *Flow Cytometry and Clinical Diagnosis*. Chicago: American Society of Clinical Pathologists Press; 1994:1-676. (Biology) Sasaki R, Yuasa Y, Masuyama A, Takaku F, Bollum FJ. Production of a specific monoclonal antibody to terminal deoxynucleotidyl transferase (TdT) and the extensive studies of TdT in patients with hematological malignancies. 1993; 25(4):223-225. (Biology)