

## Technical Data Sheet

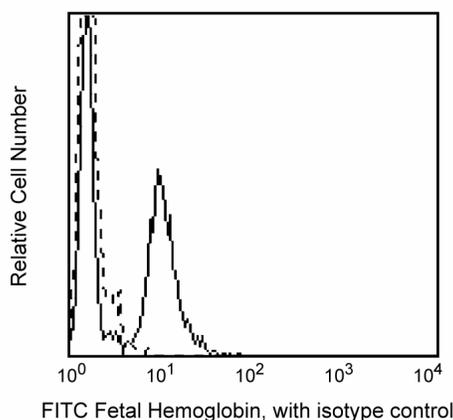
**FITC Mouse Anti-Human Fetal Hemoglobin****Product Information**

<b>Material Number:</b>	552829
<b>Size:</b>	100 Tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	2D12
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	NA
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

Reacts with fetal hemoglobin (HbF), a form of hemoglobin present during fetal development. HbF resembles adult hemoglobin (HbA) in possessing two alpha chains but differs in possessing two gamma instead of two beta chains. In normal adults, synthesis of HbF does persist at very low levels (<1% of total Hb) and is restricted to a small population of erythrocytes called F cells. Hemoglobin F-expressing erythrocytes are normally seen during pregnancy. An increase in the expression of fetal hemoglobin in adult peripheral red blood cells is a common feature in the genetic disorders of hemoglobin, sickle-cell disease (SCD) and beta thalassemia.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



*Profile of anti-HbF (2D12) on permeabilized fetal cord blood erythrocytes 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 Tested
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**Recommended Assay Procedure:**

We recommend to use 0.05% cold glutaraldehyde at room temperature for 10 minutes to fix the cells, then use 0.1% Triton X-100 at room temperature for 10 minutes to permeabilize the cells.

**Suggested Companion Products**

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555748	FITC Mouse IgG1, κ Isotype Control	100 Tests	MOPC-21

**BD Biosciences**

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552829 Rev. 4



## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

## References

- Campbell TA, Ware RE, Mason M. Detection of hemoglobin variants in erythrocytes by flow cytometry. *Cytometry*. 1999; 35(3):242-248. (Biology)
- Horiuchi K, Osterhout ML, Kamma H, Bekoe NA, Hirokawa KJ. Estimation of fetal hemoglobin levels in individual red cells via fluorescence image cytometry. *Cytometry*. 1995; 20(3):261-267. (Biology)
- Thorpe SJ, Thein SL, Sampietro M, Craig JE, Mahon B, Huehns ER. Immunochemical estimation of haemoglobin types in red blood cells by FACS analysis. *Br J Haematol*. 1994; 87(1):125-132. (Biology)