Technical Data Sheet

Purified Mouse Anti-Human Fetal Hemoglobin

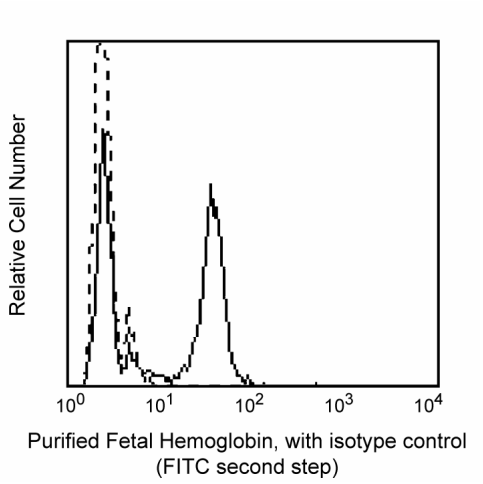
Product Information

Material Number:	**551796**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	2D12
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤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 erythrocytes obtained from cord blood analyzed by flow cytometry. *Second step staining with Cat. No. 555988.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Flow cytometry	Routinely Tested

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

Catalog Number	Name	Size	Clone
555746	Purified Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

BD Biosciences

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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.

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)