Fetal Hemoglobin Monoclonal Antibody (HBF-1), APC

Catalog Number: MHHF05

Species Reactivity
- Species Reactivity: Human
- Published Species: Non-human primate, Human, Not Applicable

Tested Applications
- Flow Cytometry (Flow): Assay Dependent
- Immunocytochemistry (ICC): Assay Dependent
- Miscellaneous PubMed (Misc): Assay Dependent

Species Reactivity
- Species Reactivity: Human
- Published Species: Non-human primate, Human, Not Applicable

Tested Applications
- Flow Cytometry (Flow): Assay Dependent
- Immunocytochemistry (ICC): Assay Dependent
- Miscellaneous PubMed (Misc): Assay Dependent

Published Applications
- Flow Cytometry (Flow): See 4 publications below
- Immunocytochemistry (ICC): See 2 publications below
- Miscellaneous PubMed (Misc): See 1 publications below

Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Species Reactivity
- Species Reactivity: Human
- Published Species: Non-human primate, Human, Not Applicable

Tested Applications
- Flow Cytometry (Flow): Assay Dependent
- Immunocytochemistry (ICC): Assay Dependent
- Miscellaneous PubMed (Misc): Assay Dependent

Published Applications
- Flow Cytometry (Flow): See 4 publications below
- Immunocytochemistry (ICC): See 2 publications below
- Miscellaneous PubMed (Misc): See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Background/Target Information

Hemorrhage of cells from an Rh+ fetus into the circulation of an Rh- mother may result in the formation of Rh-reactive antibodies in the mother. Rh hemolytic anemia in a subsequent Rh+ fetus may result from placental transfer of antibodies formed in the mother to the fetus. Although the volume of fetal erythrocytes found in the maternal circulation during pregnancy and immediately post-partum is reported to be small and of uncertain clinical significance in many cases, substantial hemorrhage may result from a number of causes including fetal or maternal trauma and placental defects. Erythrocytes containing fetal hemoglobin may be found in individuals of any age, but with lower amounts of fetal hemoglobin compared to fetal red cells. These cells have been termed F cells. High levels of F cells may also exist in adults with a heterogeneous group of genetic disorders of uncertain etiology, referred to as Hereditary Persistence of Fetal Hemoglobin. Other clinical conditions causing significant levels of anemia may also result in elevated levels of F cells. Several clinical conditions have been described with increased levels of F cells. These conditions include hereditary anemic diseases such as sickle cell anemia and thalassemia major.


### PubMed References For Fetal Hemoglobin Monoclonal Antibody (HBF-1), APC

#### 4 Flow Cytometry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-human primate / Not Cited</strong></td>
<td>MHHF05 was used in Flow cytometry/Cell sorting to demonstrate that endothelial Notch ligands promote PSC-definitive haematopoesis and production of long-term engrafting CD34+ cells.</td>
</tr>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in Flow cytometry to describe a new method to detect fetal hemoglobin</td>
</tr>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in Flow cytometry to develop immunostaining methods to measure intracellular hemoglobin in erythrocytes by fluorescence activated cell flow cytometry</td>
</tr>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in Flow cytometry to develop a Flow cytometry-based method to measure fetal-maternal hemorrhage</td>
</tr>
</tbody>
</table>

#### 2 Immunocytochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in immunocytochemistry to show that forced chromatin looping can override a stringent developmental gene expression program</td>
</tr>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in flow cytometry and immunocytochemistry to assess the feasibility of using the orange autofluorescence signal to detect fetal hemoglobin</td>
</tr>
<tr>
<td><strong>Not Applicable / Not Cited</strong></td>
<td>MHHF05 was used in immunocytochemistry to develop a flow cytometry-based method to measure fetal hemoglobin</td>
</tr>
</tbody>
</table>

#### 1 Miscellaneous PubMed References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human / 5 µl</strong></td>
<td>MHHF05 was used in flow cytometry to report that LSD1 is a promising therapeutic target for -globin induction.</td>
</tr>
</tbody>
</table>

---


Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Product documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, use of this Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthrozed commercial uses, in vivo diagnostic uses, or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

[PubMed Article URL](http://dx.doi.org/10.1038/nm.3101)

[PubMed Article URL](http://dx.doi.org/10.1093/ajcp/91.3.288)

[PubMed Article URL](http://dx.doi.org/10.1016/j.cell.2014.05.050)

[PubMed Article URL](http://dx.doi.org/10.1002/1097-0320(20001215)42:6<389::aid-cyto1007>3.3.co;2-a)

[PubMed Article URL](http://dx.doi.org/10.1111/j.1365-2141.1994.tb04881.x)

[PubMed Article URL](http://dx.doi.org/10.1172/JCI79328)