

FLAER

Type	Size	Catalog number
iFluor™488	25 µg	3105112
	50 µg	3105115
mFluor™450	25 µg	3105142
	50 µg	3105145

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Antigen:	Mammalian GPI Protein
Purity:	>90% pure tested via polyacrylamide gel electrophoresis (PAGE)
Concentration:	50 µg/mL
Formulation:	PBS, pH7.2, 0.09% NaN ₃ and 0.2% (w/v) BSA
Storage:	Store at 2-8°C and protected from prolonged exposure to light. Do not freeze.
Applications:	Flow Cytometry.

Application Information

Each lot was pre-titrated and tested by flow cytometric analysis so that 5µl will stain 1 million cells in a 100µl staining volume or 100µl of whole blood. Antibody reactivity should be empirically titrated for optimal performance for the application of interest.

Antigen Information

FLAER is a unique protein that binds tightly and specifically to mammalian glycol-phosphatidylinositol (GPI) anchored proteins on the cell surface. In healthy individuals, FLAER binds to essentially all GPI-expressing human lymphocytes, monocytes and granulocytes. White blood cells in a PNH patient losses expression of the GPI anchored cell-surface protein and FLAER fails to bind to lymphocytes, monocytes and granulocytes in a PNH patient. It is possible to detect the PNH clones by flow cytometry using fluorescently labeled antibodies to other GPI-linked proteins such as CD59 and CD55. But these antibodies have low binding affinity to GPI anchored surface antigen and confirmation of the presence of PNH clones was difficult as they often showed false negative results. Due to the high binding affinity of FLAER to the GPI anchor itself, only PNH cells, which lack the GPI anchored surface protein, will be negative and thus provides confirmatory results of the presence of PNH clones.

References

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2. Rossjohn J. *et al.* *Biochemistry.* 37(2):741-6. (1998)
3. Brodsky RA. *et al.* *Am J Clin Pathol.* 114(3):459-66. (2000)
4. Burr SE, *et al.* *J Bacteriol.* 183(20):5956-63. (2001)
5. Sutherland DR. *et al.* *Cytometry B Clin Cytom.* 72(3):167-77. (2007)
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