

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human α -Fetoprotein in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 189506
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human umbilical cord serum-derived α -Fetoprotein
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

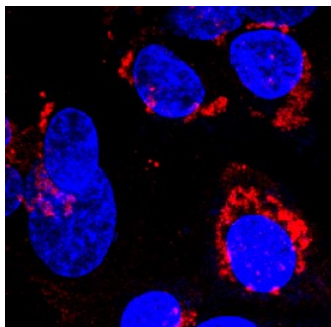
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Immunocytochemistry	8-25 μ g/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 μ g/10 ⁶ cells	See Below
CytoF-reporter	This clone has been commercially reported for use in CyTOF®. Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

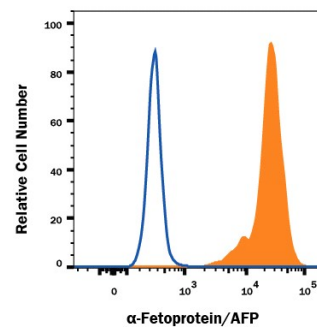
Immunocytochemistry



α -Fetoprotein/AFP in BG01V Human Embryonic Stem Cells.

α -Fetoprotein/AFP was detected in immersion fixed BG01V human embryonic stem cells differentiated to hepatocytes using Mouse Anti-Human α -Fetoprotein/AFP Monoclonal Antibody (Catalog # MAB1369) at 10 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of α -Fetoprotein/AFP in HepG2 Human Cell Line by Flow Cytometry.

HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human α -Fetoprotein/AFP Monoclonal Antibody (Catalog # MAB1369, filled histogram) or isotype control antibody (Catalog # MAB004, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

AFP (α -Fetoprotein) is a 69-73 kDa member of the ALB/AFP/VDB family of proteins. α -Fetoprotein is a major plasma protein in the fetus. Its concentration is normally low in the adult except when produced by certain tumors. It is secreted by fetal liver and serves as a carrier molecule for phytoestrogens, heavy metals (Cu and Ni), estrogen and fatty acids. Mature human AFP is 591 amino acids (aa) in length. It contains three albumin domains (aa 19-210, 211-402 and 403-601), plus 15 intrachain disulfide bonds. Mature human AFP shares approximately 66% aa identity with mouse AFP.

References:

1. Matsumura, M. *et al.* (2001) *Hepatol. Res.* **20**:84
2. Deutsch, H.F. *et al.* (2000) *Tumor Biol.* **21**:267