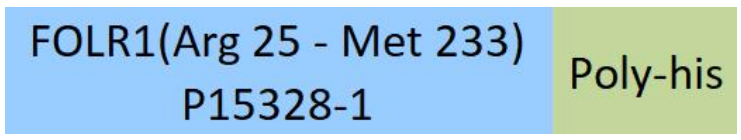
Synonym

FOLR-1,FBP,FOLR,FRα

Source

PE-Labeled Human FOLR1 Protein, His Tag (FO1-HP2H6) is produced via conjugation of PE to Human FOLR1 Protein, His Tag with a new generation site-specific technology under Star Staining labeling platform. Human FOLR1 Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Arg 25 - Met 233 (Accession # P15328-1).
Predicted N-terminus: Arg 25

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 38.9 kDa.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.2% BSA, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

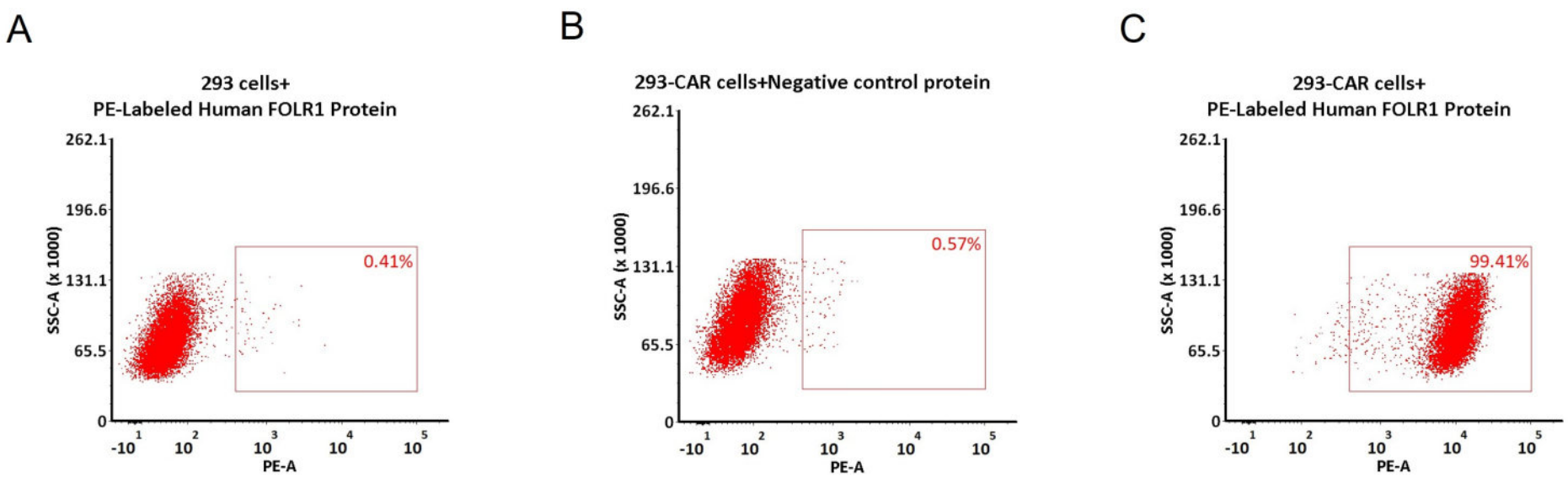
Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

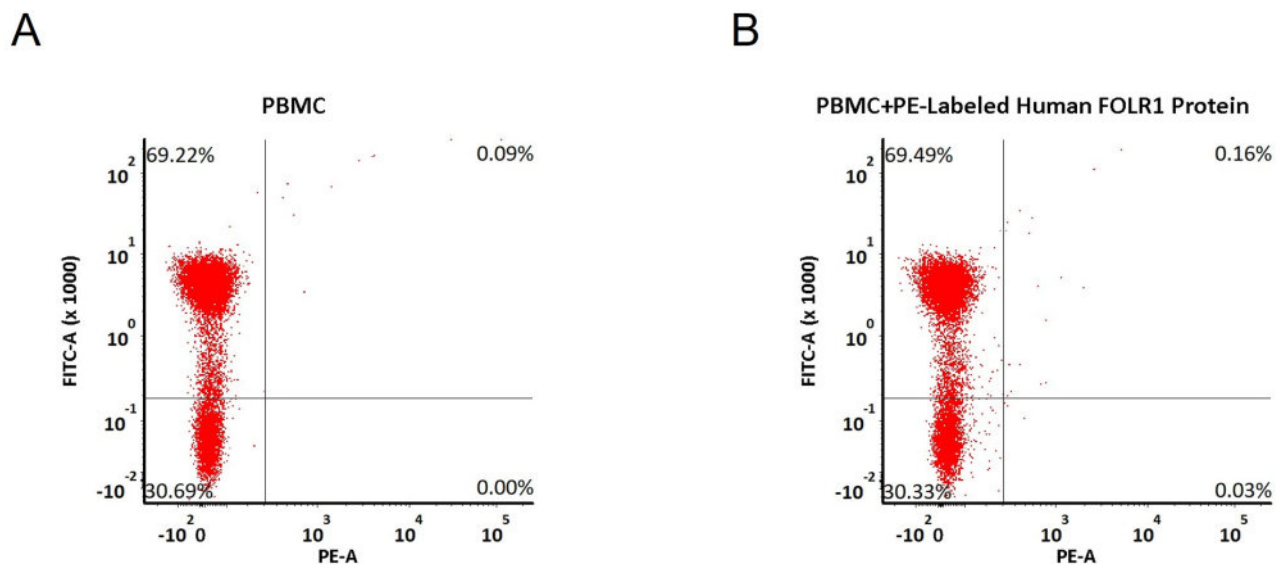
Evaluation of CAR expression

FACS Analysis of Anti-FOLR1 CAR Expression



5e5 of anti-FOLR1 CAR-293 cells were stained with 100 μL of 1:50 dilution (2 μL stock solution in 100 μL FACS buffer) of PE-Labeled Human FOLR1 Protein, His Tag (Cat. No. FO1-HP2H6) and negative control protein respectively (Fig. C and B), and non-transfected 293 cells were used as a control (Fig. A). PE signal was used to evaluate the binding activity (QC tested).

FACS Analysis of Non-specific binding to PBMCs



5e5 of PBMCs were stained with PE-Labeled Human FOLR1 Protein, His Tag (Cat. No. FO1-HP2H6) and anti-CD3 antibody, washed and then analyzed with FACS. FITC signal was used to evaluate the expression of CD3+ T cells in PBMCs, and PE signal was used to evaluate the non-specific binding activity to PBMCs (QC tested).

Background

Folate Receptor 1 (FOLR1) is also known as Folate receptor alpha, Folate Binding Protein (FBP), FOLR, and is a member of the folate receptor (FOLR) family. Members of this gene family have a high affinity for folic acid and for several reduced folic acid derivatives, and mediate delivery of 5-methyltetrahydrofolate to the interior of cells. Mature FOLR1 is an N-glycosylated protein that is anchored to the cell surface by a GPI linkage. FOLR1 is predominantly expressed on epithelial cells and is dramatically upregulated on many carcinomas. FOLR1 is internalized to the endosomal system where it dissociates from its ligand before recycling to the cell surface. A soluble form of FOLR1 can be proteolytically shed from the cell surface into the serum and breast milk. Defects in FOLR1 are the cause of neurodegeneration due to cerebral folate transport deficiency (NCFTD). NCFTD is an autosomal recessive disorder resulting from brain-specific folate deficiency early in life.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.