

Recombinant Human Folate Binding Protein/FBP Protein(Fc Tag)

Catalog Number: PDMH100271

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

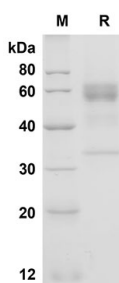
Description

Species	Human
Source	Mammalian-derived Human FOLR1 protein Arg25-Ser234, with an C-terminal Fc
Calculated MW	47.9 kDa
Observed MW	60 kDa
Accession	P15328
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human Folate Binding protein/FBP proteins, 2 µg/lane of Recombinant Human Folate Binding protein/FBP proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 47.9 kDa.

Background

For Research Use Only

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The protein encoded by FOLR1 gene is a member of the folate receptor family. Members of this gene family bind folic acid and its reduced derivatives, and transport 5-methyltetrahydrofolate into cells. This gene product is a secreted protein that either anchors to membranes via a glycosyl-phosphatidylinositol linkage or exists in a soluble form. Mutations in this gene have been associated with neurodegeneration due to cerebral folate transport deficiency. Due to the presence of two promoters, multiple transcription start sites, and alternative splicing, multiple transcript variants encoding the same protein have been found for this gene.

Folate receptor α (FR α) is the most important subunit of Folate receptor and the alpha isoform has been shown to be selectively overexpressed in cancer types like breast and ovarian cancer compared to normal breast and ovarian epithelial cells. It was determined that Folate receptor α exhibits a limited expression on the apical surfaces of the epithelial cells of normal lung, breast, thyroid, parathyroid, and kidney tissues. For their uptake of folate, normal cells rely almost exclusively on the reduced folate carrier, whereas many carcinomas and myeloid leukemia cells overexpress a high-affinity FR on their surfaces, perhaps reflecting their increased need for folate to support rapid cell division.