Recombinant Mouse Folate Binding protein/FBP Protein(Fc Tag)

Catalog Number: PDMM100112

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

Description			
Species	Mouse		
Source	Mammalian-derived Mouse Folr1 proteins Thr25-Ser232, with an C-terminal Fc		
Calculated MW	47.8 kDa		
Observed MW	55-60 kDa		
Accession	P35846		
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 $< -20^{\circ}$ C for 3 months.		
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.		
Formulation	Lyophilized from a 0.2 μ m 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.		
	0.5 mg/mL. Concentration is measured by 0.V-VIS.		

Data

kDa	М	R
80 60		-
40	-	
30		
20	-	
12		

SDS-PAGE analysis of Mouse Folate Binding protein/FBP proteins, 2 µg/lane of Recombinant Mouse Folate Binding protein/FBP proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 47.8KD

Background

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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.