InnoCyto Inc.
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

Technical Data Sheet

Biotinylated Human FOLR1 Protein (C-His-Avi)

Catalog Number: 802503, 802504
Size: 25 ug, 100 ug
Target Name: FOLR-1, FBP, FOLR, FR?
Regulatory Status: RUO

Product Details

Application: ELISA, BLI
Format: Liquid, Biotinylated
Expression Host: CHO
Species: Human
Sources: Human FOLR1 (Arg25-Met233) with C-terminus His-Avi Tag is expressed in CHO cells. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number: P15328
Molecular Weight: The protein has a predicted molecular weight of 28.6kDa. Under DTT-reducing conditions, it migrates at approximately 35-45 kDa on SDS-PAGE.
Affinity Tag: C-His-Avi
Purity: >95% based on SDS-PAGE under reducing condition
Formulation: 1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level: Not tested
Protein Concentration: 25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at <= –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

Background Information

The FOLR1 gene encodes a protein that is a member of the folate receptor family, responsible for binding folic acid and its reduced derivatives, and transporting 5-methyltetrahydrofolate into cells. The protein is typically anchored to cell membranes via a glycosyl-phosphatidylinositol (GPI) linkage or exists in a soluble form. Mutations in FOLR1 are associated with neurodegeneration due to cerebral folate transport deficiency. This gene has multiple transcript variants due to alternative splicing and the presence of two promoters and various transcription start sites. Folate receptor ? (FR?), the key subunit of the folate receptor, is primarily expressed in epithelial cells and is selectively overexpressed in cancer types like breast and ovarian cancers. While normal cells rely on the reduced folate carrier for folate uptake, many carcinomas and myeloid leukemia cells overexpress FR? to support rapid cell division, reflecting their higher need for folate.

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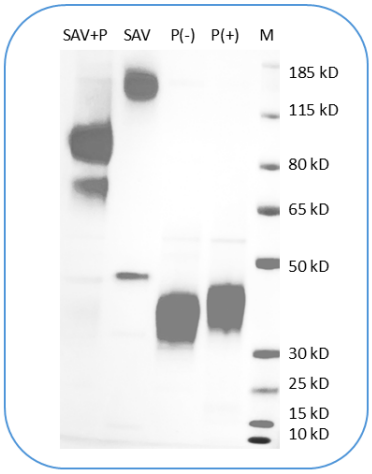
Product Data



Human FOLR1 Protein (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P+) and non-reducing (P–) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the FOLR1 protein exceeds 95%.