Product Data Sheet

FOLR1 Protein, Human (209a.a, HEK293, His)

Cat. No.: HY-P75774

Synonyms: Folate receptor alpha; FR-alpha; FBP; FOLR1; FOLR

Species: Human HEK293 Source:

P15328/NP_057937.1 (R25-M233) Accession:

Gene ID: 2348

Molecular Weight: Approximately 37.45 kDa

PROPERTIES

| AA Sequ | uence |
|---------|-------|
|---------|-------|

RIAWARTELL NVCMNAKHHK EKPGPEDKLH EQCRPWRKNA CCSTNTSQEA HKDVSYLYRF NWNHCGEMAP ACKRHFIQDT CLYECSPNLG PWIQQVDQSW RKERVLNVPL CKEDCEQWWE NWHKGWNWTSGFNKCAVGAA CQPFHFYFPT DCRTSYTCKS PTVLCNEIWT HSYKVSNYSR GSGRCIOMWF DPAQGNPNEE

VARFYAAAM

Biological Activity

Measured by its binding ability in a functional ELISA. Immobilized FOLR1 at 1 μg/ml can bind Anti-FOLR1 antibody, the ED₅₀ of human FOLR1 protein is 9.719 ng/mL, corresponding to a specific activity is 1.029×10⁵ units/mg.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than $100 \, \mu g/mL$ in ddH_2O . For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The FOLR1 protein functions as a key mediator in folate uptake, binding to folate and reduced folic acid derivatives to facilitate the delivery of 5-methyltetrahydrofolate and folate analogs into the cell interior. This process is characterized by a high affinity for folate and folic acid analogs at neutral pH, as evidenced by various studies. Notably, exposure to a slightly

acidic pH following receptor endocytosis induces a conformational change that significantly reduces its affinity for folates, facilitating their release. Beyond its role in folate transport, FOLR1 is essential for normal embryonic development and proper cell proliferation, underlining its significance in fundamental cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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