

## Datasheet for ABIN5954995

# FOLR1 Protein (AA 25-233) (His tag, AVI tag, Biotin)





## Overview

| Overview                      |   |
|-------------------------------|---|
| Quantity:                     | 200 μg  |
| Target:                       | FOLR1   |
| Protein Characteristics:      | AA 25-233   |
| Origin:                       | Human   |
| Source:                       | HEK-293 Cells   |
| Protein Type:                 | Recombinant   |
| Biological Activity:          | Active  |
| Purification tag / Conjugate: | This FOLR1 protein is labelled with His tag, AVI tag, Biotin.   |
| Product Details               |   |
| Sequence:                     | AA 25-233   |
| Specificity:                  | Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin. |
| Purity:                       | >95 % as determined by SDS-PAGE.  |
| Endotoxin Level:              | Less than 1.0 EU per μg by the LAL method.  |
| Target Details                |   |
| Target:                       | FOLR1   |
| Alternative Name:             | FOLR1 (FOLR1 Products)  |
| 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.

Molecular Weight:

28.3 kDa

NCBI Accession:

NP\_057937

Pathways:

Dicarboxylic Acid Transport

## **Application Details**

Comment:

Ready-to-use AvitagTM biotinylated protein:

The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions:

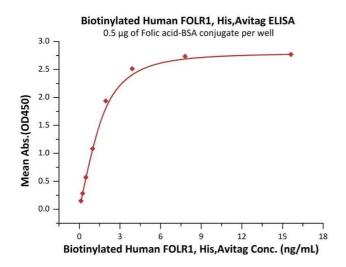
For Research Use only

#### Handling

| Format:          | Lyophilized                               |
|------------------|---|
| Buffer:          | PBS, pH 7.4                               |
| Handling Advice: | Please avoid repeated freeze-thaw cycles. |

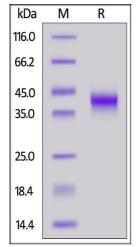
Storage: -20 °C

## **Images**



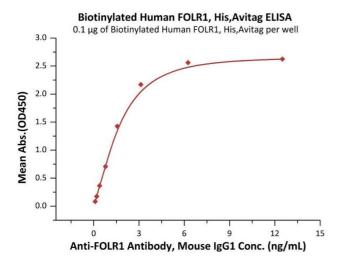
### **ELISA**

**Image 1.** Immobilized Biotinylated Human FOLR1, His,Avitag (ABIN5954995,ABIN6253622) at 1  $\mu$ g/mL (100  $\mu$  L/well) on streptavidin precoated (0.5  $\mu$ g/well) plate, can bind A Antibody,Mouse IgG1 with a linear range of 0.2-2 ng/mL (QC tested).



#### **SDS-PAGE**

**Image 2.** Biotinylated Human FOLR1, His,Avitag on under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



## ELISA

**Image 3.** Immobilized Folic acid-BSA conjugate at  $5 \mu g/mL$  (100  $\mu L/well$ ) can bind Biotinylated Human FOLR1, His,Avitag (ABIN5954995,ABIN6253622) with a linear range of 8-125 ng/mL (QC tested).