

DESCRIPTION

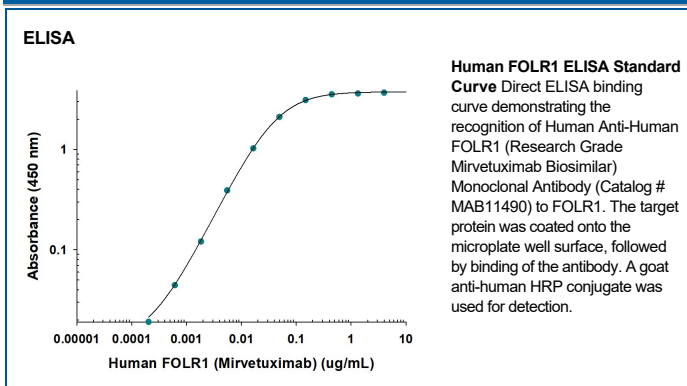
Species Reactivity	Human
Specificity	Detects human FOLR1 ELISAs.
Source	Recombinant Monoclonal Human IgG ₁ Clone # Hu218
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human FOLR1 Arg25-Met233 Accession # P15328
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

ELISA	This antibody functions as an ELISA detection antibody for the specific antigen in direct ELISA. Colorimetric detection is performed after addition of a suitable substrate.
--------------	--

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Folate Receptor 1 (FOLR1), also known as Folate Receptor alpha and Folate Binding Protein (FBP), is a 37-42 kDa protein that mediates the cellular uptake of folic acid and reduced folates. Dietary folates are required for many key metabolic processes including nucleotide and methionine synthesis, the interconversion of glycine and serine, and histidine breakdown (1, 2). Mature FOLR1 is an N-glycosylated protein that is anchored to the cell surface by a GPI linkage (3-6). Human FOLR1 shares 83% amino acid sequence identity with mouse and rat FOLR1. FOLR1 is predominantly expressed on epithelial cells and is dramatically up-regulated on many carcinomas (7, 8). It is critically required during early embryogenesis as shown in knockout mice which die *in utero* with gross morphological defects (9). FOLR1 is internalized to the endosomal system where it dissociates from its ligand before recycling to the cell surface (6, 10). A soluble form of FOLR1 can be proteolytically shed from the cell surface into the serum and breast milk (11).

References:

1. Kelemen, L.E. (2006) *Int. J. Cancer* **119**:243.
2. Fowler, B. *et al.* (2001) *Kidney Int.* **59**:S-221.
3. Luhrs, C.A. *et al.* (1989) *J. Biol. Chem.* **264**:21446.
4. Lacey, S.W. *et al.* (1989) *J. Clin. Invest.* **84**:715.
5. Elwood, P.C. (1989) *J. Biol. Chem.* **264**:14893.
6. Rijnboutt, S. *et al.* (1996) *J. Cell Biol.* **132**:35.
7. Ross, J.F. *et al.* (1994) *Cancer* **73**:2432.
8. Parker, N. *et al.* (2005) *Anal. Biochem.* **338**:284.
9. Piedrahita, J.A. *et al.* (1999) *Nat. Genet.* **23**:228.
10. Paulos, C.M. *et al.* (2004) *Mol. Pharmacol.* **66**:1406.
11. Elwood, P.C. *et al.* (1991) *J. Biol. Chem.* **266**:2346.