Active Recombinant Human FOLH1 protein, His/Avi/N-terminal-tagged, Biotinylated

Cat. No. FOLH1-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human FOLH1(Lys44-Ala750) protein, fused to His/Avi tag at the N-terminus, was expressed in CHO cells .
Species	Human
Source	CHO
ProteinLength	Lys44-Ala750
Description	Prostate-specific membrane antigen (PSMA), a tumor marker in prostate cancer encoded by the FOLH1 gene, is a type II transmembrane zinc metallopeptidase that is most highly expressed in the nervous system, prostate, kidney, and small intestine (1,2). PMSA has a short cytosolic N-terminal domain, a single membrane-spanning segment, and an extracellular region that is composed of a protease domain, apical domain, and C-terminal domain (3). The extracellular domains all contribute to substrate recognition. The protein forms an active homodimer reliant on interactions between amino-acid side chains and glycosylation (3,4). PSMA is also known as glutamate carboxypeptidase II (GCPII), folate hydrolase 1, and N-acetylated-alpha-linked acidic dipeptidase-1 (NAALADase1). PSMA activity plays a role in tumor angiogenesis making it not only a tumor marker, but a therapeutic target in cancers including prostate cancer (5). In the brain, PSMA hydrolyzes the neurotransmitter N-acetyl-Asp-Glu (NAAG) to produce glutamate, another neurotransmitter. Inhibition of brain PSMA activity is considered to be a promising approach for the treatment of

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	neurological disorders associated with glutamate excitotoxicity such as stroke, schizophrenia, Alzheimer's, and amyotrophic lateral sclerosis (6,7,8). Intestinal PSMA hydrolyzes folylpoly-gamma -glutamates, facilitating the uptake of folate (8). Upregulation of PSMA is present in inflammatory bowel disease, Crohn's disease, and ulcerative colitis where pharmacological inhibition has shown amelioration of clinical symptoms pertaining to these diseases in mice (5).
Predicted N Terminal	Gly
Form	Supplied as a 0.2 μm filtered solution in MES and NaCl.
Bio-activity	Measured by its binding ability in a functional ELISA. When HumanFOLH1 Affinity Purified Polyclonal Antibody is immobilized at 2 μg/mL, 100 μL/well, it binds Biotinylated Recombinant HumanFOLH1 His-tag Avi-tag with an ED50 of 0.01-0.08 μg/mL.
Molecular Mass	94-107 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity, Enzyme Activity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.6 months from date of receipt, -70 °C as supplied.3 months, -70 °C under sterile conditions after opening.
Conjugation	Biotin

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GENE INFORMATION

Gene Name	FOLH1 folate hydrolase (prostate-specific membrane antigen) 1 [Homo sapiens]
Official Symbol	FOLH1
Synonyms	FOLH1; folate hydrolase (prostate-specific membrane antigen) 1; FOLH; glutamate carboxypeptidase 2; GCP2; GCPII; glutamate carboxylase II; glutamate carboxypeptidase II; NAALAD1; NAALAdase; PSM; PSMA; NAALADase I; membrane glutamate carboxypeptidase; cell growth-inhibiting gene 27 protein; folylpoly-gamma-glutamate carboxypeptidase; prostate specific membrane antigen variant F; pteroylpoly-gamma-glutamate carboxypeptidase; N-acetylated alpha-linked acidic dipeptidase 1; N-acetylated-alpha-linked acidic dipeptidase I; FGCP; mGCP;
Gene ID	2346
mRNA Refseq	NM_001014986
Protein Refseq	NP_001014986
MIM	600934
UniProt ID	Q04609

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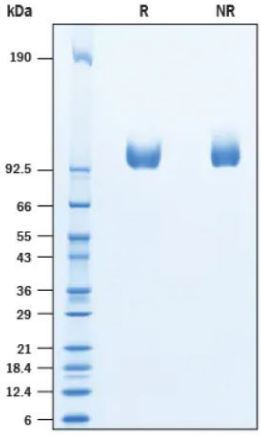
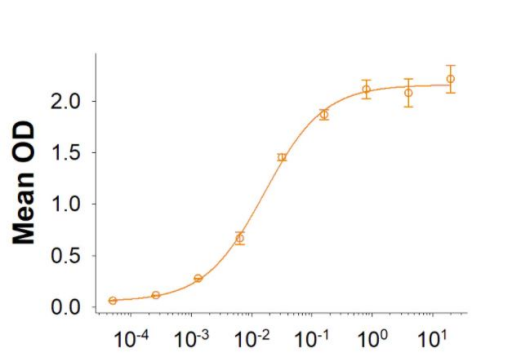
SDS-PAGE	 2 μg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.
Binding Activity	

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