Data Sheet (Cat.No.TMPY-03330)

TargetMol

BPHL Protein, Human, Recombinant (His)

General Information

Synonyms:	biphenyl hydrolase-like (serine hydrolase);VACVASE;MCNAA;BPH-RP
Protein Construction:	A DNA sequence encoding the mature form of human BPHL (Q86WA6-1) (Ser38-Gln291) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q86WA6-1
Molecular Weight:	30.7 kDa (predicted); 31 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 50 mM NaCl, 10% glycerol, pH 8.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

BPHL is a member of the serine protease family. BPHL is expressed large quantities in liver and kidney and in minor quantities in heart, intestine and skeletal muscle. BPHL is a specific alpha-amino acid ester hydrolase that prefers small, hydrophobic, and aromatic side chains and does not have a stringent requirement for the leaving group other than preferring a primary alcohol. It catalyzes the hydrolytic activation of amino acid ester prodrugs of nucleoside analogs such as valacyclovir and valganciclovir. BPHL also activates valacyclovir to acyclovir. It may

play a role in detoxification processes.

Reference

Lai L. et al., 2008, J Biol Chem. 283 (14): 9318-27.
Davila S. et al., 2010, Genes Immun. 11 (3): 232-8.
Hendrickson SL. et al., 2010, PLoS One. 5 (9): e12862.