Data Sheet (Cat.No.TMPY-02377)

TargetMol

14-3-3 eta/YWHAH Protein, Human, Recombinant (GST)

General Information

Synonyms:	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, eta;YWHA1
Protein Construction:	A DNA sequence encoding the human YWHAH (Q04917) (Gly 2-Asn 246) was fused with the GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	Q04917
Molecular Weight:	55 kDa (predicted); 55 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:	> 90 % 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, 0.15M NaCl, 20 mM GST, 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

YWHAH, the gene encoding the 14-3-3eta isoform, is highly expressed in retinal ganglion cells (RGC). YWHAH is a positional and functional candidate gene for both schizophrenia and bipolar disorder (BP). It is located on chromosome 22q12.3, a region that has been implicated by linkage studies in both BP and schizophrenia.

Reference

Wakui H,et al.(1997) Interaction of the ligand-activated glucocorticoid receptor with the 14-3-3 eta protein. J Biol Chem. 272(13): 8153-6.
Toyooka K,et al.(2002) Isolation and structure of the mouse 14-3-3 eta chain gene and the distribution of 14-3-3 eta mRNA in the mouse brain. Brain Res Mol Brain Res. 100(1-2): 13-20.
Kim YS,et al.(2005) Role of 14-3-3 eta as a positive regulator of the glucocorticoid receptor transcriptional activation. Endocrinology. 146(7): 3133-40.
Grover D,et al.(2009) Family-based association of YWHAH in psychotic bipolar disorder. Am J Med Genet B Neuropsychiatr Genet. 150B(7): 977-83.

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