Data Sheet (Cat.No.TMPY-02378)

TargetMol

14-3-3 theta/YWHAQ Protein, Human, Recombinant (GST)

General Information

Synonyms:	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta;41701; HS1;tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, θ;1C5
Protein Construction:	A DNA sequence encoding the human YWHAQ (P27348) (Met 1-Asn 245) was fused with the GST tag at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P27348
Molecular Weight:	54.6 kDa (predicted); 53 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:	> 88 % 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 GSH, pH 7.5. 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

The recently identified 14-3-3 tau, whose corresponding gene name is YWHAQ, is in a hypoxia-treated human trophoblast cell line. YWHAQ may play a role in epigenetic regulation of placental genes in the onset of Preeclampsia (PE). Moreover, there was a closer relationship between blood pressure and methylation levels of the YWHAQ promoter.

Reference

Cheng Y, et al. (2010) Effect of 14-3-3 tau protein on differentiation in BeWo choriocarcinoma cells. Placenta. 31 (1): 60-6.

Umahara T, et al. (2010) 14-3-3 proteins and spinocerebellar ataxia type 1: from molecular interaction to human neuropathology. Cerebellum. 9(2): 183-9.

Wang B, et al. (2004) A role for 14-3-3 tau in E2F1 stabilization and DNA damage-induced apoptosis. J Biol Chem. 279(52): 54140-52.

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