Data Sheet (Cat.No.TMPY-00140)

TargetMol

ABP1/AOC1 Protein, Human, Recombinant (His)

General Information

Synonyms:	amine oxidase, copper containing 1;DAO;ABP1;ABP;KAO;DAO1
Protein Construction:	A DNA sequence encoding the human AOC1 (AAH14093.1) (Met1-Val751) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Glu 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH14093.1
Molecular Weight:	84.9 kDa (predicted)

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:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. 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

Amine oxidase copper-containing 1 (AOC1; formerly known as amiloride-binding protein 1) is a secreted glycoprotein that catalyzes the degradation of putrescine and histamine. Polyamines and their diamine precursor putrescine are ubiquitous to all organisms and fulfill pivotal functions in cell growth and proliferation. That the Wilms tumor protein, WT1, which is necessary for normal kidney development, activates transcription of the AOC1 gene. Expression of a firefly luciferase reporter under control of the proximal AOC1 promoter was significantly

enhanced by co-transfection of a WT1 expression construct. Binding of WT1 protein to a cis-regulatory element in the AOC1 promoter was confirmed by electrophoretic mobility shift assay and chromatin immunoprecipitation. WT1-dependent control of polyamine breakdown, which is mediated by changes in AOC1 expression, has a role in kidney organogenesis.

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