Recombinant Mouse REN1/Renin-1 Protein (His Tag)

Catalog Number: PKSM040760

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

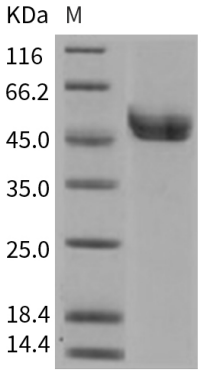
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse REN1/Renin-1 protein Met 1-Arg 402, with an C-terminal His
Calculated MW	43.2 kDa
Observed MW	48-55 kDa
Accession	NP_112469.1
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate 5-FAM/QXL™ 520 (Peti-Peterdi, J. et al., 2009, Physiology 24:88.). The specific activity is > 20 pmoles/min/μg. 2. Immobilized mouse REN1-His at 10ug/ml (100 μl/well) can bind biotinylated human AGT-His with a linear range of 31. 25-250 ng/ml.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

Renin-1, also known as Ren-1, Angiotensinogenase and Kidney renin, is a member of thepeptidase A1 family. Renin-1 is synthesized by the juxtaglomerular cells of the kidney in response to decreased blood pressure and sodium concentration. androgen and thyroid hormones influence levels of Renin-1 in mouse submandibular gland (SMG) primarily by regulating the amount of Renin-1 mRNA available for translation. Renin-1 is a highly specific endopeptidase, whose only known function is to generate angiotensin I from angiotensinogen in the plasma, initiating a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney. It is expressed at relatively low levels in mouse SMG and kidney. Ren-2 is expressed at high levels in the mouse SMG and at very low levels, if at all, in the kidney. Ren-1 and Ren-2 are closely linked on mouse chromosome 1, show extensive homology in coding and noncoding regions and provide a model for studying the regulation of gene expression.

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