

## Recombinant Mouse REN2 Protein (64-351 aa), His-tagged

**Cat. No.** REN2-1250M    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Mouse REN2 Protein (64-351 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Neuroscience. Protein Description: Partial.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | 64-351 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b>      | Adipocyte-secreted protein (adipokine) that regulates adipogenesis, metabolism and inflammation through activation of the chokine-like receptor 1 (CMKLR1). Its other ligands include G protein-coupled receptor 1 (GPR1) and chokine receptor-like 2 (CCRL2). Positively regulates adipocyte differentiation, modulates the expression of adipocyte genes involved in lipid and glucose metabolism and might play a role in angiogenesis, a process essential for the expansion of white adipose tissue. Also acts as a proinflammatory adipokine, causing an increase in secretion of proinflammatory and prodiabetic adipokines, which further impair adipose tissue metabolic function and have negative systic effects including impaired insulin sensitivity, altered glucose and lipid metabolism, and a decrease in vascular function in other tissues. Can have both pro- and anti-inflammatory properties depending on the modality of enzymatic cleavage by different classes of proteases. Acts as a chotactic factor for leukocyte populations expressing CMKLR1, particularly immature plasmacytoid dendritic cells, but also immature myeloid DCs, macrophages and natural killer cells. Exerts an anti- |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

inflammatory role by preventing TNF/TNFA-induced VCAM1 expression and monocytes adhesion in vascular endothelial cells. The effect is mediated via inhibiting activation of NF-kappa-B and CRK/p38 through stimulation of AKT1/NOS3 signaling and nitric oxide production. Its dual role in inflammation and metabolism might provide a link between chronic inflammation and obesity, as well as obesity-related disorders such as type 2 diabetes and cardiovascular disease. Exhibits an antimicrobial function in the skin.

|                       |                                                                                                                                                                                                                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Tris-based buffer,50% glycerol                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b> | 35.0 kDa                                                                                                                                                                                                                                                                                                              |
| <b>AA Sequence</b>    | SSLTDLISPVVLTNYLNSQYYGEIGIGTPPQTFKVIFDTGSANLWVPSTKCSRLYLAC<br>GIHSLYESSDSSSYMENGDDFTIHYGSGRVKGFLSQDSVTVGGITVTQTFGEVTELP<br>LIPFMLAQFDGVLGMGFPAQAVGGVTPVFDHILSQGVLEKVFVYYNRGPHLLGG<br>EVVLGGSDPEHYQGDFHYVSLSKTDSWQITMKGVS VGSSTLLCEECEVVVD TG S<br>SFISAPTSSLKLIMQALGAKEKRLHEYVVSCSQVPTLPDISFNLGGRAYTLSSSTDYVL<br>QYPN |
| <b>Purity</b>         | > 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                      |
| <b>Notes</b>          | Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.                                                                                                                                                                                                          |
| <b>Storage</b>        | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.   |
| <b>Concentration</b>  | A hardcopy of COA with reconstitution instruction is sent along with the products.                                                                                                                                                                                                                                    |

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Please refer to it for detailed information.

## GENE INFORMATION

|                 |                                                                        |
|-----------------|------------------------------------------------------------------------|
| Gene Name       | Ren2 renin 2 tandem duplication of Ren1 [ Mus musculus (house mouse) ] |
| Official Symbol | REN2                                                                   |
| Synonyms        | Ren; Rnr; Rn-2; Ren-2; Ren-B;                                          |
| Gene ID         | 19702                                                                  |
| mRNA Refseq     | NM_031193                                                              |
| Protein Refseq  | NP_112470                                                              |
| UniProt ID      | P00796                                                                 |

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