



Research use only

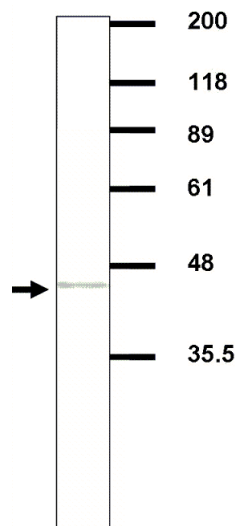
Obesity and Metabolic Syndrome Related Antibody  
**Anti Human  $\beta$ 3-AR Polyclonal Antibody**

The neurotransmitter/hormone adrenaline (epinephrine, adrenalin) plays a central role in the mammalian stress response, increasing heart rate, raising blood pressure, and increasing blood glucose levels upon entering the blood stream.

Adrenaline is secreted primarily by the adrenal medulla. Adrenaline activates both  $\alpha$ -adrenergic receptors and  $\beta$ -adrenergic receptors. Three subtypes of beta adrenergic receptors are known,  $\beta$ 1,  $\beta$ 2,  $\beta$ 3, expressed primarily in heart, respiratory tissue, and adipose tissue, respectively.

$\beta$ 3-receptors are particularly abundant in brown adipocytes and play important roles in lipolysis and thermoregulation. (Ref.1, Ref.2) Recently this receptor has received attention from researchers interested in type 2 diabetes mellitus and obesity. It is also being considered as a therapeutic target for heart failure (Ref.3).

|                     |   |
|---------------------|---|
| Package Size        | 100 $\mu$ g (400 $\mu$ L/vial)  |
| Format              | Rabbit polyclonal antibody 0.25mg/mL  |
| Buffer              | PBS [containing 2% Block Ace as a stabilizer, 0.1% Proclin as a bacteriostat]   |
| Storage             | Store below -20 $^{\circ}$ C<br>Once thawed, store at 4 $^{\circ}$ C. Repeated freeze-thaw cycles should be avoided.  |
| Purification method | This antibody was prepared from the serum of a rabbit immunized with a partial peptide representing the C-terminal domain of Human $\beta$ 3-AR, and purified by peptide affinity chromatography. |
| Working dilution    | For Western blotting: 5.0 $\mu$ g/ml  |



Western blotting

Sample: Extracted protein from mouse adipose tissue



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**【Reference】**

- 1 Skeberdis VA.:  
Structure and function of beta3-adrenergic receptors.  
Medicina (Kaunas). 2004;40(5):407-13.
- 2 Walston J. et al. :  
Time of onset of non-insulin-dependent diabetes mellitus and genetic variation in the beta 3-adrenergic-receptor gene.  
N Engl J Med. 1995 Aug 10;333(6):382-3.
- 3 Pott C. et al. :  
Beta3-adrenergic stimulation in the human heart: signal transduction, functional implications and therapeutic perspectives.  
Pharmazie. 2006 Apr;61(4):255-60.

**Manufacturer**



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