

For Research Use Only

NRAC Recombinant monoclonal antibody, PBS Only

Catalog Number: 87528-1-PBS



Basic Information

Catalog Number: 87528-1-PBS	GenBank Accession Number: NM_001008404.2	Purification Method: Protein A purification
Size: 100ug, Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 400258	CloneNo.: 252953C8
Source: Rabbit	UNIPROT ID: Q8N912	
Isotype: IgG	Full Name: chromosome 14 open reading frame 180	
Immunogen Catalog Number: EG6025	Calculated MW: 18 kDa	
	Observed MW: 18 kDa	

Applications

Tested Applications:
WB, Indirect ELISA

Species Specificity:
human

Background Information

NRAC (Nutritionally Regulated Adipose and Cardiac enriched protein, with the human homologous gene designated as C14ORF180) is a recently identified adipocyte-specific double-pass transmembrane protein. Both its N- and C-termini are located intracellularly, containing only a short extracellular loop and no known enzymatic domains. Its expression is significantly induced during the differentiation of white and brown adipocytes and is regulated by nutritional status: fasting and obesity both downregulate its mRNA levels, suggesting its role as a "fat sensor" in energy homeostasis. Mechanistically, NRAC forms a trimeric complex via its first transmembrane domain with the fatty acid transporter core protein CD36 and the membrane microdomain protein caveolin-1. When extracellular fatty acid concentrations increase, NRAC undergoes ubiquitination and internalization, causing CD36 to dissociate from caveolin-1 and switch to clathrin-mediated endocytosis. This process enhances fatty acid uptake, leading to adipocyte hypertrophy and increased overall adipose mass.

Storage

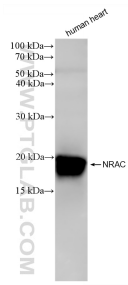
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

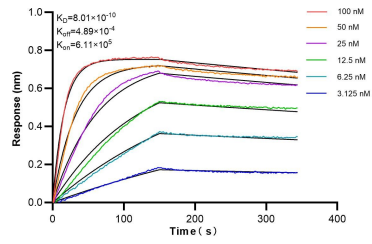
For technical support and original validation data for this product please contact:
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Selected Validation Data



human heart tissue were subjected to SDS PAGE followed by western blot with 87528-1-RR (NRAC antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87528-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 87528-1-RR against Human NRAC were performed. The affinity constant is 0.801 nM.