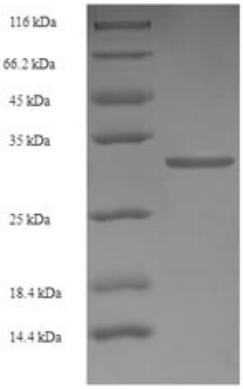
Recombinant Human Retinoic acid receptor responder protein 2 (RARRES2)

Product Code	CSB-EP857881HU
Relevance	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-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
Abbreviation	Recombinant Human RARRES2 protein
Storage	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°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q99969
Alias	ChemerinRAR-responsive protein TIG2Tazarotene-induced gene 2 protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	ELTEAQRRGLQVALEEFHKHPPVQWAFQETSVESAVDTPFPAGIFVRLEFKLQ QTSCRKRDWKKPECKVRPNGRKRKCLACIKLGSEDKVLGRLVHCPIETQVLR EAEEHQETQCLRVQRAGEDPHSFYFPGQFAFS
Research Area	Neuroscience
Source	E.coli

Target Names	RARRES2
Protein Names	Recommended name: Retinoic acid receptor responder protein 2Alternative name(s): RAR-responsive protein TIG2 Tazarotene-induced gene 2 protein
Expression Region	21-157aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	31.9kDa
Protein Length	Full Length of Mature Protein

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human RARRES2 was expressed with the amino acid range of 21-157. The calculated molecular weight for this RARRES2 protein is 31.9 kDa. This protein is generated in a e.coli-based system. The N-terminal 6xHis-SUMO tag was fused into the coding gene segment of RARRES2, making it easier to detect and purify the RARRES2 recombinant protein in the later stages of expression and purification.

Human retinoic acid receptor responder protein 2 (RARRES2) acts as a chemoattractant, modulating immune responses and adipocyte function. RARRES2 is expressed in adipose tissue and the liver, playing a role in metabolic regulation and insulin sensitivity. Additionally, it participates in inflammation, angiogenesis, and cell differentiation. Its diverse functions implicate RARRES2 in metabolic disorders, cardiovascular diseases, and cancer. As a potential biomarker, it attracts attention in therapeutic research. Understanding the intricate roles of RARRES2 contributes to unraveling its implications in health and disease, spanning immunology, metabolism, and cancer biology.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients,

storage temperature and the stability of the protein itself.
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