ARG81555
Human Chemerin ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG81555-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG81555-002	Standard	2 X 50 ng/vial	4°C
ARG81555-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG81555-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG81555-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG81555-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG81555-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG81555-008	25X Wash buffer	20 ml	4°C
ARG81555-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG81555-010	STOP solution	10 ml (Ready to use)	4°C
ARG81555-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG81555 Human Chemerin ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Chemerin in serum, plasma (heparin, EDTA) and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	There is no detectable cross-reactivity with other relevant proteins.
Target Name	Chemerin
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	39 pg/ml
Sample Type	Serum, plasma (heparin, EDTA) and cell culture supernatants.
Standard Range	78 - 5000 pg/ml
Sample Volume	100 µl

Precision	Intra-Assay CV: 6.2% Inter-Assay CV: 7.8%
Alternate Names	RAR-responsive protein TIG2; Tazarotene-induced gene 2 protein; HP10433; Retinoic acid receptor responder protein 2; Chemerin; TIG2

Application Instructions

Assay Time	~ 5 hours

Properties

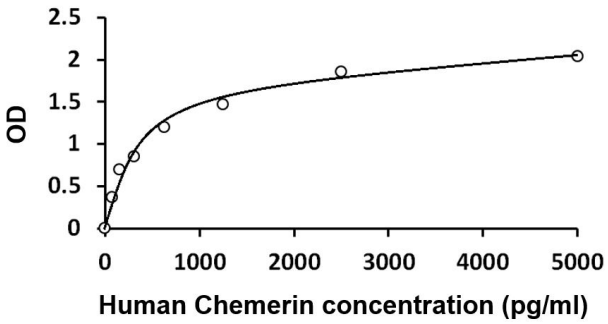
Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	RARRES2
Gene Full Name	retinoic acid receptor responder (tazarotene induced) 2
Background	This gene encodes a secreted chemotactic protein that initiates chemotaxis via the ChemR23 G protein-coupled seven-transmembrane domain ligand. Expression of this gene is upregulated by the synthetic retinoid tazarotene and occurs in a wide variety of tissues. The active protein has several roles, including that as an adipokine and as an antimicrobial protein with activity against bacteria and fungi. [provided by RefSeq, Nov 2014]
Function	Adipocyte-secreted protein (adipokine) that regulates adipogenesis, metabolism and inflammation through activation of the chemokine-like receptor 1 (CMKLR1). Its other ligands include G protein-coupled receptor 1 (GPR1) and chemokine 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 systemic 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 chemotactic 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. [UniProt]
Highlight	Related products: Chemerin antibodies; Chemerin ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	Secreted in an inactive precursor form, prochemerin, which is proteolytically processed by a variety of extracellular proteases to generate forms with differing levels of bioactivity. For example, the removal of six amino acids results in chemerin-157, which exhibits the highest activity, while removal of seven amino acids results in chemerin-156 which has slightly less activity. Some proteases are able to cleave at more than one site and chemerin forms may be sequentially processed by different enzymes to modulate activity levels. The coordinated expression and activity of chemerin-modifying enzymes is essential for regulating its bioactivation, inactivation and, consequently, biological function. Cathepsin

G cleaves seven C-terminal amino acids from prochemerin (chemerin-156), elastase is able to cleave six (chemerin-157), eight (chemerin-155) or eleven (chemerin-152), plasmin cleaves five amino acids (chemerin-158), and tryptase cleaves five (chemerin-158) or eight (chemerin-155). Multiple cleavages might be required to fully activate chemerin, with an initial tryptase cleavage resulting in chemerin with low activity (chemerin-158), and a second cleavage by carboxypeptidase N or B producing highly active chemerin (chemerin-157). [UniProt]

Images



ARG81555 Human Chemerin ELISA Kit standard curve image

ARG81555 Human Chemerin ELISA Kit results of a typical standard run with optical density reading at 450 nm.