

Datasheet for ABIN7566146

**Grancalcin Protein (AA 1-217) (Fc Tag)**[Go to Product page](#)

## Overview

Quantity:	50 µg
Target:	Grancalcin (GCA)
Protein Characteristics:	AA 1-217
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Grancalcin protein is labelled with Fc Tag.

## Product Details

Purpose:	Fc (human):Grancalcin (human) (rec.)
Cross-Reactivity:	Human
Characteristics:	Human Grancalcin (aa 1-217) is fused at the N-terminus to the Fc portion of human IgG1.
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.01EU/µg purified protein (LAL test).

## Target Details

Target:	Grancalcin (GCA)
Alternative Name:	Grancalcin ( <a href="#">GCA Products</a> )
Background:	GCA, GCL Grancalcin is a member of a new family of proteins named penta-EF-hand (PEF), which

## Target Details

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contains five repetitive EF hand motifs. PEF proteins form a unique group including calpain, sorcin, grancalcin, ALG-2 (apoptosis-linked gene-2 protein) and peflin. The penta-EF hand members are Ca<sup>2+</sup>-binding proteins implicated in regulating cell migration, apoptosis and the mobilization of immune cells. Senescent cells accumulate in the bone marrow and secrete factors, termed senescence-associated secretory phenotype (SASP), that can promote skeletal aging. Recently, senescent neutrophils and macrophages in the bone marrow were shown to be critical cell types during skeletal aging releasing Grancalcin (GCA) to promote such aging. Grancalcin seems to act by competitively binding to and inactivating PlexinB2 functions in bone marrow stromal cells (BMSCs) leading to repression of osteogenesis and increase of adipogenesis. Increased Grancalcin expression in immune cells (bone marrow macrophages and in neutrophils) is due to higher endotoxin levels observed during aging.

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Molecular Weight: ~65kDa (SDS-PAGE)

UniProt: [P28676](#)

## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Lyophilized

Reconstitution: 1 mg/mL after reconstitution.

Concentration: 1 mg/mL

Buffer: Contains PBS.

Handling Advice: After reconstitution, prepare aliquots and store at -20 °C. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution.

Storage: 4 °C, -20 °C

Storage Comment: Short Term Storage: +4°C

Long Term Storage: -20°C

Use & Stability: Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.